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# Hanford Remedial Action Preliminary Draft Environmental Impact Statement

## Volume 2 of 2

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Appendices A-J

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# Appendix A

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# A.0 Scope Definition

This appendix discusses the scope of actions addressed in the *Hanford Remedial Action Environmental Impact Statement* (HRA-EIS). The scope of this document encompasses the evaluation of potential environmental imapcts associated with the remedial actions to be conducted by the U.S. Department of Energy (DOE) under the provisions of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1989) to bring the Hanford Site into compliance with the applicable requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA), and the *Resource Conservation and Recovery Act of 1976* (RCRA). The DOE program responsible for conducting remedial actions at the Hanford Site is referred to as the Richland Environmental Restoration (ER) Project. The scope of the Richland ER Project encompasses the following groups of actions (DOE-RL 1994a):

- Radiation area remedial actions/underground storage tanks (UST)
- RCRA closures
- Single-shell tank (SST) closures
- Past-practice Site operable unit (source and groundwater) remedial actions
- Surplus facilities decommissioning
- Storage and disposal facilities.

The scope of the HRA-EIS evaluated potential environmental impacts associated with the actions contained in the above groups. Certain of these actions, however, are excluded. Some are excluded because they are addressed in other *National Environmental Policy Act of 1969* (NEPA) documents; others are excluded because they are actions for which the DOE is not yet ready to make programmatic decisions. In the following paragraphs, each of the above groups is discussed and evaluated for inclusion in this document.

## A.1 Radiation Area Remedial Actions/Underground Storage Tanks

Radiation area remedial actions address the management and control of inactive waste sites to minimize any spread of surface soil contamination that could lead to worker and public exposure. It is included as part of the No-Action Alternative. The UST program addresses the management of state-regulated, nonradioactive USTs in accordance with Washington State regulations. The UST program is excluded because actions to remove or upgrade USTs are scheduled to be completed prior to completion of this document. The No-Action Alternative assumes an ongoing environmental surveillance program; surveillance and maintenance of past-practice waste units; waste site stabilization consisting of fencing, revegetation, surface stabilization, and weed control; and continued enforcement of access restrictions.

## A.2 Resource Conservation and Recovery Act Closures

The *Resource Conservation and Recovery Act* closures address actions at certain waste management units classified under RCRA as treatment, storage, and disposal (TSD) units. A TSD unit is one that received RCRA hazardous waste and hazardous constituents after November 19, 1980 (effective date of RCRA), or state-only hazardous waste, as defined in WAC 173-303, after March 12, 1982 (effective date of the *Washington Hazardous Waste Management Act*). Units subject to regulation as a TSD must either receive a RCRA operating permit or be closed in accordance with the RCRA closure process.

At the Hanford Site there are over 50 groups of TSD units. Each group represents one or more individual TSD units that must be permitted or closed. This document does not address TSD units that are to be permitted for continued operation, but it does address closure of a selected group of TSD units shown in Table A-1. These units consist of landfills, cribs, ditches, ponds, and miscellaneous treatment and disposal facilities and are included because they are closely associated with past-practice units, either geographically or through similar processes and waste streams. Inclusion of these units is appropriate because the Tri-Party Agreement (Ecology et al. 1989) specifies that, to accomplish remediation efficiently, closure actions for TSD units are to be combined and conducted in concert with actions to remediate associated past-practice units.

## A.3 Single-Shell Tank Closures

Single-shell tank closures address the development and implementation of a safe, permanent means for final disposition of the six SST operable units (200-BP-7, 200-PO-3, 200-RO-4, 200-TP-5, 200-TP-6, and 200-UP-3). SST closures are excluded from the scope of this document because these actions are addressed in other NEPA documents. The *Tank Waste Remediation System (TWRS) Environmental Impact Statement* is addressing the management, treatment, storage, and disposal of waste stored in the 149 SSTs. The Notice of Intent for the *Tank Waste Remediation System (TWRS) Environmental Impact Statement* was published in the *Federal Register* on January 28, 1994 (59 FR 4052). According to this Notice of Intent, consideration of remedial actions for the tank shells (with waste removed) and the associated interconnecting piping, diversion boxes, catch tanks, septic tanks, and contaminated soils is deferred to a later NEPA document.

## A.4 Past-Practice Site Operable Unit Remedial Actions

Past-practice Site operable unit remedial actions address the investigation and remediation of past-practice units. A past-practice unit is a waste management unit where waste or substances have been disposed (intentionally or unintentionally) and is not subject to regulation as a TSD. Over 1,000 past-practice units have been identified at the Hanford Site (Ecology et al. 1989). A large percentage of these units are either solid waste burial grounds or liquid disposal units such as cribs, ponds, and ditches.

Under the Tri-Party Agreement (Ecology et al. 1989), remediation of past-practice site operable units is conducted pursuant to either the CERCLA remedial action process or RCRA corrective action process. All past-practice units have been placed in either a CERCLA or RCRA past-practice category for remediation. Because the two processes are functionally equivalent, no distinction is

made between remedial actions taken at CERCLA and RCRA past-practice units. To facilitate efficient investigation and remedial action, past-practice units (and selected TSD units) have been organized into groups called operable units based primarily on geographic proximity and similarity of waste disposal history. Both source and groundwater operable units are recognized.

Remedial actions at most but not all Hanford operable units are addressed. The operable units and past-practice units addressed are shown in Table A-2. This table includes the operable units listed in Appendix C of the Tri-Party Agreement Action Plan (Ecology et al. 1989) with the following exceptions.

- The six operable units containing the 149 SSTs are excluded for the reasons discussed previously.

- Sites on the Hanford 1100 Area are excluded because planned CERCLA removal actions for these sites have been determined to be categorically excluded from documentation requirements under NEPA (DOE-RL 1993). Operable units covered by this categorical exclusion are the three operable units in the 1100 Area proper (1100-EM-1, 1100-EM-2, and 1100-EM-3) and the single operable unit on the Fitzner/Eberhardt Arid Lands Ecology Reserve (1100-IU-1).

- The single operable unit on the North Slope (100-IU-3) is excluded because the planned CERCLA removal action for this site has been determined to be categorically excluded from documentation requirements under NEPA (DOE-RL 1992).

The scope of past-practice units addressed (Table A-2) includes several waste units and areas of contamination not specifically listed in Appendix C of the Tri-Party Agreement Action Plan (Ecology et al. 1989). In the Columbia River geographic area, two past-practice units have been added to address contaminated shoreline sediment and island sediment. In the Reactors on the River geographic area, six past-practice units have been added to address the on-land underground piping in the six reactor areas.

## *A.5 Surplus Facilities Decommissioning*

Surplus facilities decommissioning addresses the safe management and final disposition of facilities that have been retired and declared surplus. These facilities include contaminated surplus production reactors, chemical processing buildings, and ancillary structures. Surplus facilities decommissioning addresses the surveillance and maintenance of surplus facilities awaiting decommissioning, as well as the actual decommissioning of facilities. Surveillance and maintenance actions are included as a part of the No-Action Alternative. Actual decommissioning actions are included for some but not all surplus facilities. The surplus facilities for which decommissioning actions are addressed are shown in Table A-3. This EIS includes decommissioning actions for facilities that have been accepted into the current surplus facilities program, except for: (1) those decommissioning actions that were covered in the EIS for decommissioning of eight surplus production reactors at the Hanford Site (DOE 1992); (2) decommissioning actions that have been determined to be categorically excluded from documentation requirements under NEPA; and (3) facilities in the 200 Areas. Facilities in the 200 Areas are not included because DOE is not yet ready to make programmatic decisions regarding final disposition of the major 200 Areas facilities (e.g., T Plant, B Plant, and Plutonium-Uranium Extraction Plant).

The scope of decommissioning actions addressed (Table A-3) represents only a small fraction of the overall decommissioning program that would eventually be conducted at Hanford. This is not considered a major drawback, however, because this document focuses on a broad-based examination of the potential impacts associated with remediation to levels that would allow different potential uses. The ability to achieve a desired future use in a geographic area is more likely to be influenced by the ability to achieve past-practice unit remediation rather than surplus facility decommissioning. Regardless, the type of future use established for a geographic area would dictate the degree of decommissioning required for any particular facility. It is likely that additional NEPA documentation would be required to address future decommissioning activities.

## *A.6 Storage and Disposal Facilities*

Storage and disposal facilities address the planning, construction, and operation of any storage and disposal facilities required for the success of the Richland ER Project. The 200 Area Environmental Restoration Disposal Facility (ERDF) is currently under construction and is expected to provide primary waste storage and disposal capacity to support the Richland ER Project.

Impacts from constructing the proposed ERDF were addressed in a package of regulatory documentation being prepared by DOE pursuant to the requirements of CERCLA, and NEPA (DOE-RL 1994b and 1994c). This EIS assumes that the ERDF is already in operation and addresses only the impacts due to routine facility operation. Operational impacts from ERDF are addressed as part of the assessment of cumulative impacts. Results of the NEPA documentation prepared for the ERDF regulatory package are used as the source for operational impacts.

## *A.7 Summary*

The actions addressed are a subset of the Hanford Site actions addressed by the Richland ER Project. In general, actions within the scope of the Richland ER Project are addressed unless they are addressed in other NEPA documents or are actions for which DOE is not yet ready to make programmatic decisions. The principal categories of actions addressed are TSD unit closures, past-practice unit remedial actions, and surplus facilities decommissioning. Over 50 groups of TSD units, over 1,000 past-practice units, and over 100 surplus facilities have been identified for action at the Hanford Site. The subset of actions addressed consists of 21 individual TSD unit closures (Table A-1), 833 past-practice unit remedial actions (Table A-2), and 38 surplus facility decommissioning actions (Table A-3). A summary of the total number of units and facilities addressed in each geographic area is shown in Table A-4. Table A-4 is the source of the numbers of units and facilities quoted in the body of this EIS.

*Table A-1. Resource Conservation and Recovery Act Treatment, Storage, and Disposal (TSD) Unit Closures Addressed.*

| Geographic Area | Operable Unit | TSD Unit | TSD Unit Description |
|---|---|---|---|
| Columbia River | Contamination in the Columbia River geographic area is not associated with any TSD units | | |
| Reactors on the River | 100-NR-1 | 116-N-1 (1301-N)<br>116-N-3 (1325-N)<br>120-N-1 (1324-N)<br>120-N-2 (1324-NA) | Crib<br>Crib<br>Pond<br>Neutralization Unit |
| | 100-DR-1 | 120-D-1 | Ponds |
| | 100-HR-1 | 116-H-6 (183-H) | Retention Basin |
| Central Plateau | 200-UP-2 | 216-U-12 | Crib |
| | 200-RO-1 | 216-S-10D<br>216-S-10P | Ditch<br>Pond |
| | 200-PO-2 | 216-A-10<br>216-A-36B | Crib<br>Crib |
| | 200-PO-5 | 216-A-29 | Ditch |
| | 200-BP-8 | 216-B-63 | Ditch |
| | 200-BP-11 | 216-B-3 (B Pond)<br>216-B-3-3<br>216-B-3A<br>216-B-3B<br>216-B-3C | Pond<br>Ditch<br>Pond<br>Pond<br>Pond |
| | Not Assigned | Hexone Storage and Treatment | Tanks |
| All Other Areas | 300-FF-1 | 316-5 (300 Area Process Trenches) | Trench |
| | 200-IU-3 | NRDW Landfill | Landfill |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Columbia River | Not Assigned | Shoreline Adjacent to 100 Areas (Benton County Side) | Contaminated Shoreline Sediment |
| Reactors on the River | 100-BC-1 (GW addressed by 100-BC-5) | 116-B-1 | Trench |
| | | 116-B-2 | Trench |
| | | 116-B-3 | Crib |
| | | 116-B-4 | French Drain |
| | | 116-B-5 | Crib |
| | | 116-B-6A | Crib |
| | | 116-B-6B | Crib |
| | | 116-B-7 | Outfall Structure |
| | | 116-B-9 | French Drain |
| | | 116-B-10 | French Drain |
| | | 116-B-11 | Retention Basin |
| | | 116-B-12 | Crib |
| | | 116-B-13 | Trench |
| | | 116-B-14 | Trench |
| | | 116-B-15 | Pit |
| | | 116-B-16 | Storage Tank |
| | | 116-C-1 | Trench |
| | | 116-C-5 | Retention Basin |
| | | 118-B-5 | Burial Ground |
| | | 118-B-7 | Burial Ground |
| | | 118-B-10 | Pit |
| | | 120-B-1 | Sump |
| | | 126-B-1 | Ash Pit |
| | | 126-B-2 | Demolition and Inert Landfill |
| | | 126-B-3 | Demolition and Inert Landfill |
| | | 126-B-4 | Brine Pit |
| | | 128-B-1 | Burning Pit |
| | | 128-B-2 | Burning Pit |
| | | 128-B-3 | Burning Pit |
| | | 128-C-1 | Burning Pit |
| | | 132-B-1 | Building |
| | | 132-B-3 | Stack |
| | | 132-B-4 | Building |
| | | 132-B-5 | Building |
| | | 132-B-6 | Outfall Structure |
| | | 132-C-2 | Outfall Structure |
| | | 1607-B1 | Septic Tank |
| | | 1607-B2 | Septic Tank |
| | | 1607-B3 | Septic Tank |
| | | 1607-B4 | Septic Tank |
| | | 1607-B5 | Septic Tank |
| | | 1607-B6 | Septic Tank |
| | | 1607-B7 | Septic Tank |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Reactors on the River (cont'd) | 100-BC-2 (GW addressed by 100-BC-5) | 116-C-2A | Crib |
| | | 116-C-2B | Pump Station |
| | | 116-C-2C | Sand Filter |
| | | 116-C-3 | Storage Tank |
| | | 116-C-6 | Pit |
| | | 118-B-1 | Burial Ground |
| | | 118-B-2 | Burial Ground |
| | | 118-B-3 | Burial Ground |
| | | 118-B-4 | Burial Ground |
| | | 118-B-6 | Burial Ground |
| | | 118-C-1 | Burial Ground |
| | | 118-C-2 | Storage Tank |
| | | 132-C-1 | Stack |
| | | 132-C-3 | Building |
| | | 1607-B8 | Septic Tank |
| | | 1607-B9 | Septic Tank |
| | | 1607-B10 | Septic Tank |
| | | 1607-B11 | Septic Tank |
| | Not Assigned | 100-BC Piping | Underground Pipelines |
| | 100-BC-5 (GW O.U.) | 100-BC-1 | Source O.U. |
| | | 100-BC-2 | Source O.U. |
| | | 100-BC-3 | Source O.U. |
| | | 100-BC-4 | Source O.U. |
| | 100-KR-1 (GW addressed by 100-KR-4) | 116-KE-4 | Retention Basin |
| | | 116-KW-3 | Retention Basin |
| | | 116-K-1 | Crib |
| | | 116-K-2 | Trench |
| | | 116-K-3 | Outfall Structure |
| | 100-KR-2 (GW addressed by 100-KR-4) | 130-KE-1 | Storage Tank |
| | | 130-KW-1 | Storage Tank |
| | | 116-KE-1 | Crib |
| | | 116-KE-2 | Crib |
| | | 116-KE-3 | Reverse Well |
| | | 116-KW-1 | Crib |
| | | 116-KW-2 | Reverse Well |
| | | 118-K-1 | Burial Ground |
| | | 120-KE-8 | Brine Pit |
| | | 120-KW-6 | Brine Pit |
| | | 126-K-1 | Demolition and Inert Landfill |
| | | 1607-K4 | Septic Tank |
| | | 1607-K6 | Septic Tank |
| | | 130-KE-2 | Storage Tank |
| | | 130-KW-2 | Storage Tank |
| | | 130-K-1 | Storage Tank |
| | | 130-K-2 | Storage Tank |
| | | UN-100-K-1 | Unplanned Release |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Reactors on the River (cont'd) | 100-KR-3 (GW addressed by 100-KR-4) | 120-KE-1 | French Drain |
| | | 120-KW-2 | French Drain |
| | | 120-KE-3 | Trench |
| | | 120-KE-2 | French Drain |
| | | 120-KW-5 | Storage Tank |
| | | 120-KE-6 | Storage Tank |
| | | 120-KE-9 | Brine Pit |
| | | 120-KW-1 | French Drain |
| | | 120-KW-7 | Brine Pit |
| | | 128-K-1 | Burning Pit |
| | | 128-K-2 | Burning Pit |
| | | 130-K-3 | Storage Tank |
| | | 1607-K1 | Septic Tank |
| | | 1607-K2 | Septic Tank |
| | | 1607-K3 | Septic Tank |
| | | 1607-K5 | Septic Tank |
| | Not Assigned | 100-KR Piping | Underground Pipelines |
| | 100-KR-4 (GW O.U.) | 100-KR-1 | Source O.U. |
| | | 100-KR-2 | Source O.U. |
| | | 100-KR-3 | Source O.U. |
| | 100-NR-1 | 116-N-2 | Storage Tank |
| | | 116-N-4 | Septic Tank |
| | | 118-N-1 | Silos |
| | | 120-N-3 | French Drain |
| | | 120-N-5 | Neutralization Unit |
| | | 120-N-6 | French Drain |
| | | 120-N-7 | French Drain |
| | | 120-N-8 | French Drain |
| | | 124-N-1 | Septic Tank |
| | | 124-N-2 | Septic Tank |
| | | 124-N-3 | Septic Tank |
| | | 124-N-4 | Septic Tank |
| | | 124-N-5 | Septic Tank |
| | | 124-N-6 | Septic Tank |
| | | 124-N-7 | Septic Tank |
| | | 124-N-8 | Septic Tank |
| | | 124-N-9 | Septic Tank |
| | | 124-N-10 | Sewer |
| | | 128-N-1 | Burning Pit |
| | | 130-N-1 | Pond |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Reactors on the River (cont'd) | 100-NR-1 (cont'd) | UN-100-N-1 | Unplanned Release |
| | | UN-100-N-2 | Unplanned Release |
| | | UN-100-N-3 | Unplanned Release |
| | | UN-100-N-4 | Unplanned Release |
| | | UN-100-N-5 | Unplanned Release |
| | | UN-100-N-6 | Unplanned Release |
| | | UN-100-N-7 | Unplanned Release |
| | | UN-100-N-8 | Unplanned Release |
| | | UN-100-N-9 | Unplanned Release |
| | | UN-100-N-10 | Unplanned Release |
| | | UN-100-N-11 | Unplanned Release |
| | | UN-100-N-12 | Unplanned Release |
| | | UN-100-N-13 | Unplanned Release |
| | | UN-100-N-14 | Unplanned Release |
| | | UN-100-N-15 | Unplanned Release |
| | | UN-100-N-17 | Unplanned Release |
| | | UN-100-N-18 | Unplanned Release |
| | | UN-100-N-19 | Unplanned Release |
| | | UN-100-N-20 | Unplanned Release |
| | | UN-100-N-21 | Unplanned Release |
| | | UN-100-N-22 | Unplanned Release |
| | | UN-100-N-23 | Unplanned Release |
| | | UN-100-N-24 | Unplanned Release |
| | | UN-100-N-25 | Unplanned Release |
| | | UN-100-N-26 | Unplanned Release |
| | | UN-100-N-29 | Unplanned Release |
| | | UN-100-N-30 | Unplanned Release |
| | | UN-100-N-31 | Unplanned Release |
| | | UN-100-N-32 | Unplanned Release |
| | | UN-100-N-33 | Unplanned Release |
| | | UN-100-N-34 | Unplanned Release |
| | | UN-100-N-35 | Unplanned Release |
| | | UN-600-N-17 | Unplanned Release |
| | 100-NR-2 (GW O.U.) | 100-NR-1 | Source O.U. |
| | Not Assigned | 100-NR Piping | Underground Pipelines |
| | 100-DR-1 (GW addressed by 100-HR-3) | 116-D-1A | Trench |
| | | 116-D-1B | Trench |
| | | 116-D-2 | Crib |
| | | 116-D-3 | French Drain |
| | | 116-D-4 | French Drain |
| | | 116-D-5 | Outfall Structure |
| | | 116-D-6 | French Drain |
| | | 116-D-7 | Retention Basin |
| | | 116-D-9 | Crib |
| | | 116-D-10 | Pit |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Reactors on the River (cont'd) | 100-DR-1 (GW addressed by 100-HR-3) (cont'd) | 116-DR-1 | Trench |
| | | 116-DR-2 | Trench |
| | | 116-DR-5 | Outfall Structure |
| | | 116-DR-9 | Retention Basin |
| | | 120-D-2 | Storage Tank |
| | | 126-D-1 | Ash Pit |
| | | 126-D-2 | Demolition and Inert Landfill |
| | | 126-D-3 | Brine Pit |
| | | 128-D-2 | Burn Pit |
| | | 130-D-1 | Storage Tank |
| | | 132-D-1 | Building |
| | | 132-D-2 | Building |
| | | 132-D-3 | Pump Station |
| | | 1607-D2 | Septic Tank |
| | | 1607-D4 | Septic Tank |
| | | 1607-D5 | Septic Tank |
| | | 628-3 | Burn Pit |
| | 100-DR-2 (GW addressed by 100-HR-3) | 116-DR-3 | Trench |
| | | 116-DR-4 | Crib |
| | | 116-DR-6 | Trench |
| | | 116-DR-7 | Crib |
| | | 116-DR-8 | French Drain |
| | | 118-D-5 | Burial Ground |
| | | 126-DR-1 | Demolition and Inert Landfill |
| | | 132-DR-1 | Pump Station |
| | | 1607-D3 | Septic Tank |
| | Not Assigned | 100-DR-Piping | Underground Pipelines |
| | 100-DR-3 (GW addressed by 100-HR-3) | 116-DR-10 | Pit |
| | | 118-D-1 | Burial Ground |
| | | 118-D-2 | Burial Ground |
| | | 118-D-3 | Burial Ground |
| | | 118-D-4 | Burial Ground |
| | | 118-DR-1 | Burial Ground |
| | | 128-D-1 | Burning Pit |
| | | 1607-D1 | Septic Tank |
| | 100-HR-1 (GW addressed by 100-HR-3) | 116-H-1 | Trench |
| | | 116-H-2 | Trench |
| | | 116-H-3 | French Drain |
| | | 116-H-4 | Crib |
| | | 116-H-5 | Outfall Structure |
| | | 116-H-7 | Retention Basin |
| | | 116-H-9 | Crib |
| | | 126-H-2 | Demolition and Inert Landfill |
| | | 132-H-1 | Stack |
| | | 132-H-3 | Pump Station |
| | | 1607-H2 | Septic Tank |
| | | 1607-H3 | Septic Tank |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Reactors on the River (cont'd) | 100-HR-2 (GW addressed by 100-HR-3) | 118-H-1 | Burial Ground |
| | | 118-H-2 | Burial Ground |
| | | 118-H-3 | Burial Ground |
| | | 118-H-4 | Burial Ground |
| | | 118-H-5 | Burial Ground |
| | | 126-H-1 | Ash Pit |
| | | 128-H-1 | Burning Pit |
| | | 128-H-2 | Burning Pit |
| | | 128-H-3 | Burning Pit |
| | | 132-H-2 | Building |
| | | 1607-H1 | Septic Tank |
| | | 1607-H4 | Septic Tank |
| | Not Assigned | 100-HR-Piping | Underground Pipelines |
| | 100-HR-3 (GW O.U.) | 100-HR-1 | Source O.U. |
| | | 100-HR-2 | Source O.U. |
| | | 100-DR-1 | Source O.U. |
| | | 100-DR-2 | Source O.U. |
| | | 100-DR-3 | Source O.U. |
| | 100-FR-1 | 116-F-1 | Trench |
| | | 116-F-2 | Trench |
| | | 116-F-3 | Trench |
| | | 116-F-4 | Crib |
| | | 116-F-5 | Crib |
| | | 116-F-6 | Trench |
| | | 116-F-7 | French Drain |
| | | 116-F-8 | Outfall Structure |
| | | 116-F-9 | Trench |
| | | 116-F-10 | French Drain |
| | | 116-F-11 | French Drain |
| | | 116-F-12 | French Drain |
| | | 116-F-13 | French Drain |
| | | 116-F-14 | Retention Basin |
| | | 116-F-15 | Crib |
| | | 116-F-16 | Outfall |
| | | 126-F-2 | Demolition and Inert Landfill |
| | | 128-F-2 | Burning Pit |
| | | 132-F-3 | Building |
| | | 132-F-4 | Stack |
| | | 132-F-5 | Building |
| | | 132-F-6 | Pump Station |
| | | 1607-F2 | Septic Tank |
| | | 1607-F3 | Septic Tank |
| | | 1607-F4 | Septic Tank |
| | | 1607-F5 | Septic Tank |
| | | 1607-F6 | Septic Tank |
| | | UN-100-F-1 | Unplanned Release |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Reactors on the River (cont'd) | 100-FR-2 | 118-F-1 | Burial Ground |
| | | 118-F-2 | Burial Ground |
| | | 118-F-3 | Burial Ground |
| | | 118-F-4 | Burial Ground |
| | | 118-F-5 | Burial Ground |
| | | 118-F-6 | Burial Ground |
| | | 118-F-7 | Burial Ground |
| | | 118-F-9 | Burial Ground |
| | | 120-F-1 | Trench |
| | | 126-F-1 | Ash Pit |
| | | 128-F-1 | Burning Pit |
| | | 128-F-3 | Burning Pit |
| | | 1607-F1 | Septic Tank |
| | Not Assigned | 100-FR-Piping | Underground Pipelines |
| | 100-FR-3 (GW O.U.) | 100-FR-1 | Source O.U. |
| | | 100-FR-2 | Source O.U. |
| | 100-IU-2 | 628-1 | Burning Pit |
| | | East White Bluffs Landfill | Landfill |
| | | White Bluffs Landfill | Landfill |
| | | J.A. Jones #2 | Burial Ground |
| | 100-IU-4 | Sodium Dichromate Barrel Disposal | Landfill |
| | 100-IU-5 | White Bluffs Pickling Acid | Crib |
| Central Plateau | 200-UP-1 (GW O.U.) | 200-UP-2 | Source O.U. |
| | 200-UP-2 | 200-W Powerhouse Pond | Pond |
| | | 200 West Constr. Surface Laydown Area | Burial Ground |
| | | 207-U | Retention Basin |
| | | 216-U-1&2 | Crib |
| | | 216-U-3 | French Drain |
| | | 216-U-4 | Reverse Well |
| | | 216-U-4A | French Drain |
| | | 216-U-4B | French Drain |
| | | 216-U-5 | Trench |
| | | 216-U-6 | Trench |
| | | 216-U-7 | French Drain |
| | | 216-U-8 | Crib |
| | | 216-U-9 | Ditch |
| | | 216-U-10 | Pond |
| | | 216-U-11 | Ditch |
| | | 216-U-13 | Trench |
| | | 216-U-14 | Ditch |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-UP-2 (cont'd) | 216-U-15 | Trench |
| | | 216-U-16 | Crib |
| | | 216-U-17 | Crib |
| | | 216-Z-11 | Ditch |
| | | 216-Z-19 | Ditch |
| | | 216-Z-1D | Ditch |
| | | 216-Z-20 | Crib |
| | | 241-U-361 | Settling Tank |
| | | 241-UX-154 | Diversion Box |
| | | 241-UX-302A | Catch Tank |
| | | 241-WR Vault | Vault |
| | | 270-W | Neutralization Tank |
| | | 2607-W5 | Septic Tank |
| | | 2607-W7 | Septic Tank |
| | | 2607-W9 | Septic Tank |
| | | UN-200-W-19 | Unplanned Release |
| | | UN-200-W-33 | Unplanned Release |
| | | UN-200-W-39 | Unplanned Release |
| | | UN-200-W-46 | Unplanned Release |
| | | UN-200-W-48 | Unplanned Release |
| | | UN-200-W-55 | Unplanned Release |
| | | UN-200-W-60 | Unplanned Release |
| | | UN-200-W-68 | Unplanned Release |
| | | UN-200-W-78 | Unplanned Release |
| | | UN-200-W-86 | Unplanned Release |
| | | UN-200-W-101 | Unplanned Release |
| | | UN-200-W-117 | Unplanned Release |
| | | UN-200-W-118 | Unplanned Release |
| | | UN-200-W-125 | Unplanned Release |
| | | UN-200-W-161 | Unplanned Release |
| | | U Plant Burning Pit | Burial Ground |
| | 200-ZP-1 (GW O.U.) | 200-ZP-2 | Source O.U. |
| | | 200-TP-2 | Source O.U. |
| | | 200-TP-4 | Source O.U. |
| | 200-ZP-2 | 207-Z | Retention Basin |
| | | 216-Z-1&2TF | Crib |
| | | 216-Z-1A | Drain Field |
| | | 216-Z-3 | Crib |
| | | 216-Z-4 | Trench |
| | | 216-Z-5 | Crib |
| | | 216-Z-6 | Crib |
| | | 216-Z-7 | Crib |
| | | 216-Z-8 | French Drain |
| | | 216-Z-9 | Trench |
| | | 216-Z-10 | Reverse Well |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-ZP-2 (cont'd) | 216-Z-12 | Crib |
| | | 216-Z-13 | French Drain |
| | | 216-Z-14 | French Drain |
| | | 216-Z-15 | French Drain |
| | | 216-Z-16 | Crib |
| | | 216-Z-17 | Trench |
| | | 216-Z-18 | Crib |
| | | 231-W-151 | Vault |
| | | 241-Z-8 | Settling Tank |
| | | 241-Z-361 | Settling Tank |
| | | 2607-Z | Septic Tank |
| | | 2607-W8 | Septic Tank |
| | | 2607-WA | Septic Tank |
| | | 2607-Z8 | Septic Tank |
| | | UN-200-W-23 | Unplanned Release |
| | | UN-200-W-74 | Unplanned Release |
| | | UN-200-W-75 | Unplanned Release |
| | | UN-200-W-79 | Unplanned Release |
| | | UN-200-W-89 | Unplanned Release |
| | | UN-200-W-90 | Unplanned Release |
| | | UN-200-W-91 | Unplanned Release |
| | | UN-200-W-103 | Unplanned Release |
| | | UN-200-W-130 | Unplanned Release |
| | | UN-200-W-159 | Unplanned Release |
| | 200-ZP-3 | 218-W-1 | Burial Ground |
| | | 218-W-1A | Burial Ground |
| | | 218-W-2 | Burial Ground |
| | | 218-W-2A | Burial Ground |
| | | 218-W-3 | Burial Ground |
| | | 218-W-4A | Burial Ground |
| | | 218-W-11 | Burial Ground |
| | | 2607-WWA | Septic Tank |
| | | Z Plant Burning Pit | Pit |
| | | UN-200-W-11 | Unplanned Release |
| | | UN-200-W-44 | Unplanned Release |
| | | UN-200-W-132 | Unplanned Release |
| | 200-RO-1 | 216-S-4 | French Drain |
| | | 216-S-5 | Crib |
| | | 216-S-6 | Crib |
| | | 216-S-11 | Pond |
| | | 216-S-16D | Ditch |
| | | 216-S-16P | Pond |
| | | 216-S-17 | Pond |
| | | 216-S-172 | Control Structure |
| | | 216-S-19 | Pond |
| | | 216-S-21 | Crib |
| | | 216-S-25 | Crib |
| | | 2607-WZ | Septic Tank |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-RO-1 (cont'd) | 2904-S-160 | Control Structure |
| | | 2904-S-170 | Control Structure |
| | | 2904-S-171 | Control Structure |
| | 200-RO-2 | 207-S | Retention Basin |
| | | 216-S-1&2 | Crib |
| | | 216-S-3 | French Drain |
| | | 216-S-7 | Crib |
| | | 216-S-8 | Trench |
| | | 216-S-9 | Crib |
| | | 216-S-13 | Crib |
| | | 216-S-15 | Pond |
| | | 216-S-18 | Trench |
| | | 216-S-23 | Crib |
| | | 218-W-9 | Burial Ground |
| | | 241-S-151 | Diversion Box |
| | | 241-S-302A | Catch Tank |
| | | 241-SX-302 | Catch Tank |
| | | UN-200-W-32 | Unplanned Release |
| | | UN-200-W-34 | Unplanned Release |
| | | UN-200-W-41 | Unplanned Release |
| | | UN-200-W-42 | Unplanned Release |
| | | UN-200-W-49 | Unplanned Release |
| | | UN-200-W-50 | Unplanned Release |
| | | UN-200-W-52 | Unplanned Release |
| | | UN-200-W-69 | Unplanned Release |
| | | UN-200-W-82 | Unplanned Release |
| | | UN-200-W-83 | Unplanned Release |
| | | UN-200-W-108 | Unplanned Release |
| | | UN-200-W-109 | Unplanned Release |
| | | UN-200-W-114 | Unplanned Release |
| | | UN-200-W-123 | Unplanned Release |
| | | UN-200-W-127 | Unplanned Release |
| | 200-RO-3 | 207-SL | Retention Basin |
| | | 216-S-12 | Trench |
| | | 216-S-14 | Trench |
| | | 216-S-20 | Crib |
| | | 216-S-22 | Crib |
| | | 216-S-26 | Crib |
| | | 218-W-7 | Burial Ground |
| | | 240-S-151 | Diversion Box |
| | | 240-S-152 | Diversion Box |
| | | 240-S-302 | Catch Tank |
| | | 2607-W6 | Septic Tank |
| | | UN-200-W-30 | Unplanned Release |
| | | UN-200-W-35 | Unplanned Release |
| | | UN-200-W-43 | Unplanned Release |
| | | UN-200-W-56 | Unplanned Release |
| | | UN-200-W-61 | Unplanned Release |
| | | UN-200-W-116 | Unplanned Release |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-TP-1 | 216-T-5 | Trench |
| | | 216-T-7TF | Crib |
| | | 216-T-21 | Trench |
| | | 216-T-22 | Trench |
| | | 216-T-23 | Trench |
| | | 216-T-24 | Trench |
| | | 216-T-25 | Trench |
| | | 216-T-32 | Crib |
| | | 216-T-36 | Crib |
| | 200-TP-2 | 2607-WT | Septic Tank |
| | | 216-T-13 | Trench |
| | | 216-T-18 | Crib |
| | | 216-T-19TF | Crib |
| | | 216-T-20 | Trench |
| | | 216-T-26 | Crib |
| | | 216-T-27 | Crib |
| | | 216-T-28 | Crib |
| | | 216-T-31 | French Drain |
| | | 241-TX-152 | Diversion Box |
| | | 241-TX-155 | Diversion Box |
| | | 241-TX-302B | Catch Tank |
| | | 241-TX-302BR | Catch Tank |
| | | UN-200-W-14 | Unplanned Release |
| | | UN-200-W-29 | Unplanned Release |
| | | UN-200-W-99 | Unplanned Release |
| | | UN-200-W-113 | Unplanned Release |
| | | UN-200-W-135 | Unplanned Release |
| | 200-TP-3 | 207-T | Retention Basin |
| | | 216-T-12 | Trench |
| | | 216-T-14 | Trench |
| | | 216-T-15 | Trench |
| | | 216-T-16 | Trench |
| | | 216-T-17 | Trench |
| | | 216-T-4-1D | Ditch |
| | | 216-T-4-2 | Ditch |
| | | 216-T-4A | Pond |
| | | 216-T-4B | Pond |
| | | 216-T-6 | Crib |
| | | UN-200-W-7 | Unplanned Release |
| | | UN-200-W-63 | Unplanned Release |
| | 200-TP-4 | 216-T-1 | Ditch |
| | | 216-T-2 | Reverse Well |
| | | 216-T-3 | Reverse Well |
| | | 216-T-8 | Crib |
| | | 216-T-9 | Trench |
| | | 216-T-10 | Trench |
| | | 216-T-11 | Trench |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-TP-4 (cont'd) | 216-T-29 | Crib |
| | | 216-T-33 | Crib |
| | | 216-T-34 | Crib |
| | | 216-T-35 | Crib |
| | | 218-W-8 | Burial Ground |
| | | 241-T-361 | Settling Tank |
| | | 241-TX-154 | Diversion Box |
| | | 241-TX-302C | Catch Tank |
| | | 2607-W3 | Septic Tank |
| | | 2607-W4 | Septic Tank |
| | | UN-200-W-2 | Unplanned Release |
| | | UN-200-W-3 | Unplanned Release |
| | | UN-200-W-4 | Unplanned Release |
| | | UN-200-W-8 | Unplanned Release |
| | | UN-200-W-27 | Unplanned Release |
| | | UN-200-W-38 | Unplanned Release |
| | | UN-200-W-58 | Unplanned Release |
| | | UN-200-W-65 | Unplanned Release |
| | | UN-200-W-67 | Unplanned Release |
| | | UN-200-W-73 | Unplanned Release |
| | | UN-200-W-77 | Unplanned Release |
| | | UN-200-W-85 | Unplanned Release |
| | | UN-200-W-98 | Unplanned Release |
| | | UN-200-W-102 | Unplanned Release |
| | | UN-200-W-137 | Unplanned Release |
| | 200-SS-2 | 200 West Ash Disposal Basin | Ash Pit |
| | | 200 West Burning Pit | Burning Pit |
| | | 200-W Powerhouse Ash Pit | Ash Pit |
| | | 216-W-LC | Crib |
| | | 2607-W1 | Septic Tank |
| | | 2607-W2 | Septic Tank |
| | | UN-200-W-88 | Unplanned Release |
| | 200-PO-1 (GW O.U.) | 200-BP-2 | Source O.U. |
| | | 200-BP-11 (South Part) | Source O.U. |
| | | 200-PO-2 (South Part) | Source O.U. |
| | | 200-PO-3 (South Part) | Source O.U. |
| | | 200-PO-4 | Source O.U. |
| | | 200-PO-5 (South Part) | Source O.U. |
| | | 200-SS-1 | Source O.U. |
| | 200-PO-2 (Source O.U.) | 216-A-2 | Crib |
| | | 216-A-3 | Crib |
| | | 216-A-4 | Crib |
| | | 216-A-5 | Crib |
| | | 216-A-9 | Crib |
| | | 216-A-11 | French Drain |
| | | 216-A-12 | French Drain |
| | | 216-A-13 | French Drain |
| | | 216-A-14 | French Drain |
| | | 216-A-15 | French Drain |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-PO-2 (Source O.U.) (cont'd) | 216-A-21 | Crib |
| | | 216-A-22 | French Drain |
| | | 216-A-26 | French Drain |
| | | 216-A-26A | French Drain |
| | | 216-A-27 | Crib |
| | | 216-A-28 | French Drain |
| | | 216-A-31 | Crib |
| | | 216-A-32 | Crib |
| | | 216-A-33 | French Drain |
| | | 216-A-35 | French Drain |
| | | 216-A-36A | Crib |
| | | 216-A-38-1 | Crib |
| | | 216-A-40 | Trench |
| | | 216-A-41 | Crib |
| | | 216-A-45 | Crib |
| | | 218-E-1 | Burial Ground |
| | | 218-E-13 | Burial Ground |
| | | 241-A-151 | Diversion Box |
| | | 241-A-302A | Catch Tank |
| | | 299-E24-111 | Injection Well |
| | | 2607-E6 | Septic Tank |
| | | 2607-EA | Septic Tank |
| | | UN-200-E-10 | Unplanned Release |
| | | UN-200-E-11 | Unplanned Release |
| | | UN-200-E-12 | Unplanned Release |
| | | UN-200-E-13 | Unplanned Release |
| | | UN-200-E-15 | Unplanned Release |
| | | UN-200-E-19 | Unplanned Release |
| | | UN-200-E-20 | Unplanned Release |
| | | UN-200-E-22 | Unplanned Release |
| | | UN-200-E-25 | Unplanned Release |
| | | UN-200-E-26 | Unplanned Release |
| | | UN-200-E-28 | Unplanned Release |
| | | UN-200-E-31 | Unplanned Release |
| | | UN-200-E-33 | Unplanned Release |
| | | UN-200-E-35 | Unplanned Release |
| | | UN-200-E-39 | Unplanned Release |
| | | UN-200-E-40 | Unplanned Release |
| | | UN-200-E-42 | Unplanned Release |
| | | UN-200-E-49 | Unplanned Release |
| | | UN-200-E-58 | Unplanned Release |
| | | UN-200-E-60 | Unplanned Release |
| | | UN-200-E-65 | Unplanned Release |
| | | UN-200-E-88 | Unplanned Release |
| | | UN-200-E-96 | Unplanned Release |
| | | UN-200-E-97 | Unplanned Release |
| | | UN-200-E-114 | Unplanned Release |
| | | UN-200-E-117 | Unplanned Release |
| | | UN-200-E-142 | Unplanned Release |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-PO-4 (Source O.U.) | 216-A-6 | Crib |
| | | 216-A-30 | Crib |
| | | 216-A-37-1 | Crib |
| | | 216-A-37-2 | Crib |
| | | 216-A-42 | Retention Basin |
| | | 2607-EL | Septic Tank |
| | 200-PO-5 (Source O.U.) | 207-A | Retention Basin |
| | | 216-A-1 | Crib |
| | | 216-A-7 | Crib |
| | | 216-A-8 | Crib |
| | | 216-A-16 | French Drain |
| | | 216-A-17 | French Drain |
| | | 216-A-18 | Trench |
| | | 216-A-19 | Trench |
| | | 216-A-20 | Trench |
| | | 216-A-23A | French Drain |
| | | 216-A-23B | French Drain |
| | | 216-A-24 | Crib |
| | | 216-A-29 | Ditch |
| | | 216-A-34 | Ditch |
| | | 216-A-524 | Control Structure |
| | | 241-A-302B | Catch Tank |
| | | 2607-EC | Septic Tank |
| | | UN-200-E-56 | Unplanned Release |
| | | UN-200-E-67 | Unplanned Release |
| | 200-PO-6 | 200-E Burning Pit | Pit |
| | | 218-E-12A | Burial Ground |
| | | 218-E-8 | Burial Ground |
| | | UN-200-E-62 | Unplanned Release |
| | 200-BP-1 (Source O.U.) | 216-B-43 | Crib |
| | | 216-B-44 | Crib |
| | | 216-B-45 | Crib |
| | | 216-B-46 | Crib |
| | | 216-B-47 | Crib |
| | | 216-B-48 | Crib |
| | | 216-B-49 | Crib |
| | | 216-B-50 | Crib |
| | | 216-B-57 | Crib |
| | | 216-B-61 | Crib |
| | | UN-200-E-89 | Unplanned Release |
| | | UN-200-E-110 | Unplanned Release |
| | | UN-200-E-63 | Unplanned Release |
| | | UN-200-E-9 | Unplanned Release |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-BP-2 (Source O.U.) | 216-B-14 | Crib |
| | | 216-B-15 | Crib |
| | | 216-B-16 | Crib |
| | | 216-B-17 | Crib |
| | | 216-B-18 | Crib |
| | | 216-B-19 | Crib |
| | | 216-B-20 | Trench |
| | | 216-B-21 | Trench |
| | | 216-B-22 | Trench |
| | | 216-B-23 | Trench |
| | | 216-B-24 | Trench |
| | | 216-B-25 | Trench |
| | | 216-B-26 | Trench |
| | | 216-B-27 | Trench |
| | | 216-B-28 | Trench |
| | | 216-B-29 | Trench |
| | | 216-B-30 | Trench |
| | | 216-B-31 | Trench |
| | | 216-B-32 | Trench |
| | | 216-B-33 | Trench |
| | | 216-B-34 | Trench |
| | | 216-B-52 | Trench |
| | | 216-B-53A | Trench |
| | | 216-B-53B | Trench |
| | | 216-B-54 | Trench |
| | | 216-B-58 | Trench |
| | | UN-200-E-83 | Unplanned Release |
| | 200-BP-3 (Source O.U.) | 216-B-35 | Trench |
| | | 216-B-36 | Trench |
| | | 216-B-37 | Trench |
| | | 216-B-38 | Trench |
| | | 216-B-39 | Trench |
| | | 216-B-40 | Trench |
| | | 216-B-41 | Trench |
| | | 216-B-42 | Trench |
| | 200-BP-4 (Source O.U.) | 216-B-11A&B | Reverse Well |
| | | 216-B-51 | French Drain |
| | | 216-B-7A&B | Crib |
| | | 216-B-8TF | Crib |
| | 200-BP-5 (GW O.U.) | 200-BP-1 | Source O.U. |
| | | 200-BP-3 | Source O.U. |
| | | 200-BP-4 | Source O.U. |
| | | 200-BP-6 | Source O.U. |
| | | 200-BP-7 | Source O.U. |
| | | 200-BP-8 | Source O.U. |
| | | 200-BP-9 | Source O.U. |
| | | 200-BP-10 | Source O.U. |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-BP-5 (GW O.U.) (cont'd) | 200-BP-11 (North Part) | Source O.U. |
| | | 200-NO-1 | Source O.U. |
| | | 200-PO-2 (North Part) | Source O.U. |
| | | 200-PO-3 (North Part) | Source O.U. |
| | | 200-PO-5 (North Part) | Source O.U. |
| | | 200-SO-1 | Source O.U. |
| | | 200-IU-6 | Source O.U. |
| | 200-BP-6 | 216-B-4 | Reverse Well |
| | | 216-B-5 | Reverse Well |
| | | 216-B-6 | Reverse Well |
| | | 216-B-9TF | Crib |
| | | 216-B-10A | Crib |
| | | 216-B-10B | Crib |
| | | 216-B-13 | French Drain |
| | | 216-B-56 | Crib |
| | | 216-B-59A | Trench |
| | | 216-B-59B | Retention Basin |
| | | 216-B-60 | Crib |
| | | 218-E-6 | Burial Ground |
| | | 218-E-7 | Burial Ground |
| | | 241-B-154 | Diversion Box |
| | | 241-B-302-B | Catch Tank |
| | | 241-B-361 | Settling Tank |
| | | 241-BX-154 | Diversion Box |
| | | 241-BX-155 | Diversion Box |
| | | 241-BX-302B | Catch Tank |
| | | 241-BX-302C | Catch Tank |
| | | 241-ER-152 | Diversion Box |
| | | 270-E Condensate Neutralization Tank | Neutralization Tank |
| | | 2607-E3 | Septic Tank |
| | | 2607-E4 | Septic Tank |
| | | Tile Field South of 218-E-4 | Drain Field |
| | | UN-200-E-1 | Unplanned Release |
| | | UN-200-E-2 | Unplanned Release |
| | | UN-200-E-3 | Unplanned Release |
| | | UN-200-E-7 | Unplanned Release |
| | | UN-200-E-41 | Unplanned Release |
| | | UN-200-E-44 | Unplanned Release |
| | | UN-200-E-45 | Unplanned Release |
| | | UN-200-E-52 | Unplanned Release |
| | | UN-200-E-54 | Unplanned Release |
| | | UN-200-E-55 | Unplanned Release |
| | | UN-200-E-69 | Unplanned Release |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-BP-6 (cont'd) | UN-200-E-80 | Unplanned Release |
| | | UN-200-E-85 | Unplanned Release |
| | | UN-200-E-87 | Unplanned Release |
| | | UN-200-E-90 | Unplanned Release |
| | | UN-200-E-103 | Unplanned Release |
| | | UN-200-E-140 | Unplanned Release |
| | 200-BP-8 | 207-B | Retention Basin |
| | | 216-B-2-1 | Ditch |
| | | 216-B-2-2 | Ditch |
| | | 216-B-2-3 | Ditch |
| | | 2607-E9 | Septic Tank |
| | 200-BP-9 | 200 Area Construction Pit | Pit |
| | | 216-B-12 | Crib |
| | | 216-B-55 | Crib |
| | | 216-B-62 | Crib |
| | | 216-B-64 | Retention Basin |
| | | 241-ER-151 | Diversion Box |
| | | 241-ER-311 | Catch Tank |
| | | UN-200-E-64 | Unplanned Release |
| | 200-BP-10 | 218-E-2 | Burial Ground |
| | | 218-E-2A | Burial Ground |
| | | 218-E-4 | Burial Ground |
| | | 218-E-5 | Burial Ground |
| | | 218-E-5A | Burial Ground |
| | | 218-E-9 | Burial Ground |
| | | UN-200-E-61 | Unplanned Release |
| | | UN-200-E-95 | Unplanned Release |
| | | UN-200-E-112 | Unplanned Release |
| | 200-BP-11 (Source O.U.) | 216-B-3-1 | Ditch |
| | | 216-B-3-2 | Ditch |
| | | 216-E-25 | Pond |
| | | UN-200-E-14 | Unplanned Release |
| | | UN-200-E-92 | Unplanned Release |
| | 200-SS-1 | 200-E Powerhouse Ash Pit | Ash Pit |
| | | 218-E-3 | Burial Ground |
| | | 2607-E1 | Septic Tank |
| | | 2607-E7B | Septic Tank |
| | | 2607-E8 | Septic Tank |
| | | 2607-EH | Septic Tank |
| | | 2607-EK | Septic Tank |
| | | 2607-EM | Septic Tank |
| | | 2607-EP | Septic Tank |
| | | 2607-EQ | Septic Tank |
| | | 2607-ER | Septic Tank |
| | | 2607-GF | Septic Tank |
| | | Chemical Tile Field North of 2703-E | Drain field |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| Central Plateau (cont'd) | 200-SO-1 (Source O.U.) | 200-E Power Ditch | House Ditch |
| | | 216-C-1 | Crib |
| | | 216-C-2 | Reverse Well |
| | | 216-C-3 | Crib |
| | | 216-C-4 | Crib |
| | | 216-C-5 | Crib |
| | | 216-C-6 | Crib |
| | | 216-C-7 | Crib |
| | | 216-C-9 | Pond |
| | | 216-C-10 | Crib |
| | | 218-C-9 | Burial Ground |
| | | 241-CX-70 | Storage Tank |
| | | 241-CX-71 | Neutralization Tank |
| | | 241-CX-72 | Storage Tank |
| | | 2607-E5 | Septic Tank |
| | | 2607-E7A | Septic Tank |
| | | Hot Semi-Works Valve Pit | Valve Pit |
| | | UN-200-E-36 | Unplanned Release |
| | | UN-200-E-37 | Unplanned Release |
| | | UN-200-E-98 | Unplanned Release |
| | | UN-200-E-141 | Unplanned Release |
| | 200-NO-1 (Source O.U.) | 216-N-1 | Pond |
| | | 216-N-2 | Trench |
| | | 216-N-3 | Trench |
| | | 216-N-4 | Pond |
| | | 216-N-5 | Trench |
| | | 216-N-6 | Pond |
| | | 216-N-7 | Trench |
| | 200-IU-1 | Exploratory Shaft HWSA | Staging Area |
| | | Exploratory Shaft Septic Tank | Septic Tank |
| | | 6607-3 | Septic Tank |
| | 200-IU-5 | Batch Plant HWSA | Staging Area |
| | | 2607-FSN | Septic Tank |
| | | 622-1 | Dumping Area |
| | | 622-R | Septic Tank |
| | | Old Central Shop Area | Test Treatment or Support Facility |
| | 200-IU-6 (Source O.U.) | 216-A-25 | Pond |
| | | 216-N-8 | Pond |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| All Other Areas | 300-FF-1 | 300 Ash Pits | Pit |
| | | 300 Filter Backwash Pond | Pond |
| | | 300 Retired Filter Backwash | Pond |
| | | 300 Retired RLWS | Sewer |
| | | 300 Area RLWS and 340 Complex | Sewer |
| | | 300 Area Sanitary Sewer System | Sewer |
| | | 307 | Retention Basin |
| | | 316-1 | Pond |
| | | 316-2 | Pond |
| | | 316-3 | Trench |
| | | 618-12 | Burial Ground |
| | | 618-4 | Burial Ground |
| | | 618-5 | Burial Ground |
| | | 628-4 | Burn Pit |
| | | UN-300-1 | Unplanned Release |
| | | UN-300-2 | Unplanned Release |
| | | UN-300-11 | Unplanned Release |
| | | UN-300-14 | Unplanned Release |
| | | UN-300-31 | Unplanned Release |
| | | UN-300-41 | Unplanned Release |
| | | UN-300-FF-1 | Unplanned Release |
| | 300-FF-2 (GW addressed by 300-FF-5) | 300 Vitrification Test Site | Test Treatment Facility |
| | | 300 Interim Filter Backwash Disposal | Neutralization Unit |
| | | 309-TW-1 | Storage Tank |
| | | 309-TW-2 | Storage Tank |
| | | 309-TW-3 | Storage Tank |
| | | 315 Retired Drain Field | Drain Field |
| | | 316-4 | Crib |
| | | 331 Drain field | Drain Field |
| | | 331 Trench 1 | Trench |
| | | 331 Trench 2 | Trench |
| | | 335 & 336 Retired Drain Fields | Drain Fields |
| | | 618-1 | Burial Ground |
| | | 618-2 | Burial Ground |
| | | 618-3 | Burial Ground |
| | | 618-6 | Burial Ground |
| | | 618-7 | Burial Ground |
| | | 618-8 | Burial Ground |
| | | 618-9 | Burial Ground |
| | | 618-10 | Burial Ground |
| | | 618-11 | Burial Ground |
| | | 618-13 | Burial Ground |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| All Other Areas (cont'd) | 300-FF-2 (GW addressed by 300-FF-5) (cont'd) | UN-300-4 | Unplanned Release |
| | | UN-300-5 | Unplanned Release |
| | | UN-300-7 | Unplanned Release |
| | | UN-300-10 | Unplanned Release |
| | | UN-300-12 | Unplanned Release |
| | | UN-300-13 | Unplanned Release |
| | | UN-300-17 | Unplanned Release |
| | | UN-300-18 | Unplanned Release |
| | | UN-300-39 | Unplanned Release |
| | | UN-300-40 | Unplanned Release |
| | | UN-300-42 | Unplanned Release |
| | | UN-300-43 | Unplanned Release |
| | | UN-300-44 | Unplanned Release |
| | | UN-300-45 | Unplanned Release |
| | | J. A. Jones #1 | Landfill |
| | | 4713-B French Drain | French Drain |
| | | 4722-B French Drain | French Drain |
| | | 4722-C French Drain | French Drain |
| | | French Drain #10 | French Drain |
| | | French Drain #10A | French Drain |
| | | French Drain #1A | French Drain |
| | | French Drain #1B | French Drain |
| | | French Drain #2 | French Drain |
| | | French Drain #3 | French Drain |
| | | French Drain #4 | French Drain |
| | | French Drain #5 | French Drain |
| | | French Drain #6 | French Drain |
| | | French Drain #7 | French Drain |
| | | French Drain #8 | French Drain |
| | | French Drain #9 | French Drain |
| | | 403 French Drain | French Drain |
| | | 4721 French Drain | French Drain |
| | | 400 Area Process Pond and Sewer | Pond |
| | | 400 Area Retired French Drains | French Drain |
| | | 400 Area Retired Sanitary Pond | Pond |
| | | 400 Area Retired Septic Tanks | Septic Tank |
| | | Sand Bottom Trench | Trench |
| | | Sanitary Sewer | Drain Field |
| | | Sanitary Tile Field | Drain Field |
| | | 4831 Laydown Hazardous Staging | Staging Area |
| | | UN-400-1 | Unplanned Release |
| | 300-FF-5 (GW O.U.) | 300-FF-1 | Source O.U. |
| | | 300-FF-2 | Source O.U. |
| | | 300-FF-3 | Source O.U. |
| | 100-IU-1 | Army Munitions Burial Site | Burial Ground |
| | | Riverland Railroad Car Wash Pit | Pit |

*Table A-2. Past-Practice Unit Remedial Actions Addressed. (21 sheets)*

| Geographic Area | Operable Unit | Past-Practice Unit | Unit Description |
|---|---|---|---|
| All Other Areas (cont'd) | 200-IU-2 | NSTF Septic Tank | Septic Tank |
| | | NSTF Underground Tank | Storage Tank |
| | | 628-2 | Burning Pit |
| | | 1607-FSM | Septic Tank |
| | 200-IU-3 | Central Landfill | Landfill |
| | | Original Central Landfill | Landfill |
| | | 6607-1 | Septic Tank |
| | | 6607-2 | Septic Tank |
| | | UN-600-12 | Unplanned Release |
| | 200-IU-4 | Hanford Townsite Landfill | Landfill |
| | | Hanford Trailer Camp Landfill | Landfill |
| | | 213 J & K | Crib |
| | | P-11 | Crib |
| | | UN-600-16 | Unplanned Release |
| | | UN-600-18 | Unplanned Release |
| | | UN-600-19 | Spill |

*Table A-3. Surplus Facilities Decommissioning and Dismantlement Addressed (Hearney, 1995).*

| Geographic Area | Operable Unit | Surplus Facility |
|---|---|---|
| Columbia River | Not Assigned | 100-BC River Discharge Lines<br>100-D/DR River Discharge Lines<br>100-KE/KW River Discharge Lines<br>100-FR River Discharge Lines<br>100-HR River Discharge Lines |
| Reactors on the River | 100-BC-1 | 103-B Unirradiated Fuel Storage Riggers and Loft<br>104-B-1 Tritium Vault<br>104-B-2 Tritium Laboratory<br>116-B Exhaust Air Stack<br>1608-B Facility<br>105-B Water Tunnel |
| | 100-BC-2 | 190-C Pump House<br>105-C Water Tunnels |
| | 100-DR-1 | 105-D Water Tunnel<br>103-D Unirradiated Fuel Element (Fresh Metal) Storage<br>116-D Exhaust Air Stack<br>185-D Development Laboratory<br>189-D Mechanical Development Laboratory<br>190-D Main Process Pumphouse<br>190-DA Main Process Pumphouse Annex<br>195-D Vertical Safety Rod Test Tower |
| | 100-DR-2 | 119-DR Exhaust Air Sampling Building<br>105-DR Water Tunnels<br>116-DR Exhaust Air Stack<br>117-DR Exhaust Air Filter Building<br>190-DR Main Pump House -/N&S Annex |
| | 100-KR-2 | 182-K Emergency Water Reservoir/Pumphouse<br>105-KE Water Tunnel<br>105-KW Water Tunnels<br>110-KE Gas Storage Facility<br>110-KW Gas Storage Facility<br>115-KE Gas Recirculation Building<br>115-KW Gas Recirculation Building<br>116-KE Exhaust Air Stack<br>116-KW Exhaust Air Stack<br>117-KE Exhaust Air Filter Building<br>117-KW Exhaust Air Filter Building<br>165-KW Power Control Building |
| Central Plateau | No surplus facilities addressed | |
| All Other Areas | No surplus facilities addressed | |

*Table A-4. Summary of Actions Addressed in this EIS.*

| Geographic Area | Treatment, Storage, and Disposal Closures | Past-Practice Unit Remedial Actions | Surplus Facility D&D Actions |
|---|---|---|---|
| Columbia River | 0 | 2[a] | 5[b] |
| Reactors on the River | 6 | 268[c] | 33 |
| Central Plateau | 13 | 482 | 0 |
| All Other Areas | 2 | 81 | 0 |
| TOTAL | 21 | 833 | 38 |

[a]Consists of contaminated shoreline sediment and island sediment.

[b]Represents the underwater river discharge lines at the five reactor areas containing single-pass reactors (100-BC, 100-KR, 100-DR, 100-HR, 100-FR).

[c]Includes six past-practice units representing on-land underground piping at the six reactor areas (100-BC, 100-KR, 100-NR, 100-DR, 100-HR, 100-FR).

## *Appendix A References*


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# Appendix B

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# B.0 Human Health Risk Assessment Methodology and Calculations

This appendix describes the methodology used to estimate risks of human exposure to radionuclides and hazardous chemicals associated with the No-Action Alternative and risks associated with accidents occurring during remediation. Appendix B1 briefly summarizes Appendices B2 through B5, which provide detailed descriptions of the risk assessment methodology and the results obtained. Appendix B6 presents all references cited in Appendices B1 through B5.

The human health risk assessment involved extensive use of computer models requiring large amounts of input data and generating expansive numerical results. These data and summary results are presented in tabular form in these appendices.

Tables that present the detailed results are quite long and would increase the size of this document by more than 1,000 pages. Therefore, to conserve resources, the tables for time zero ($T_0$) have been placed, as an example, in a separate supporting document entitled, *Supporting Data for Appendix B: Hanford Remedial Action Environmental Impact Statement*. This supporting document is available in U.S. Department of Energy (DOE) reading rooms. The tables for future time periods are available from DOE upon request.

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# Appendix B1

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# B1.0 Introduction

## B1.1 No-Action Alternative Risk Estimation

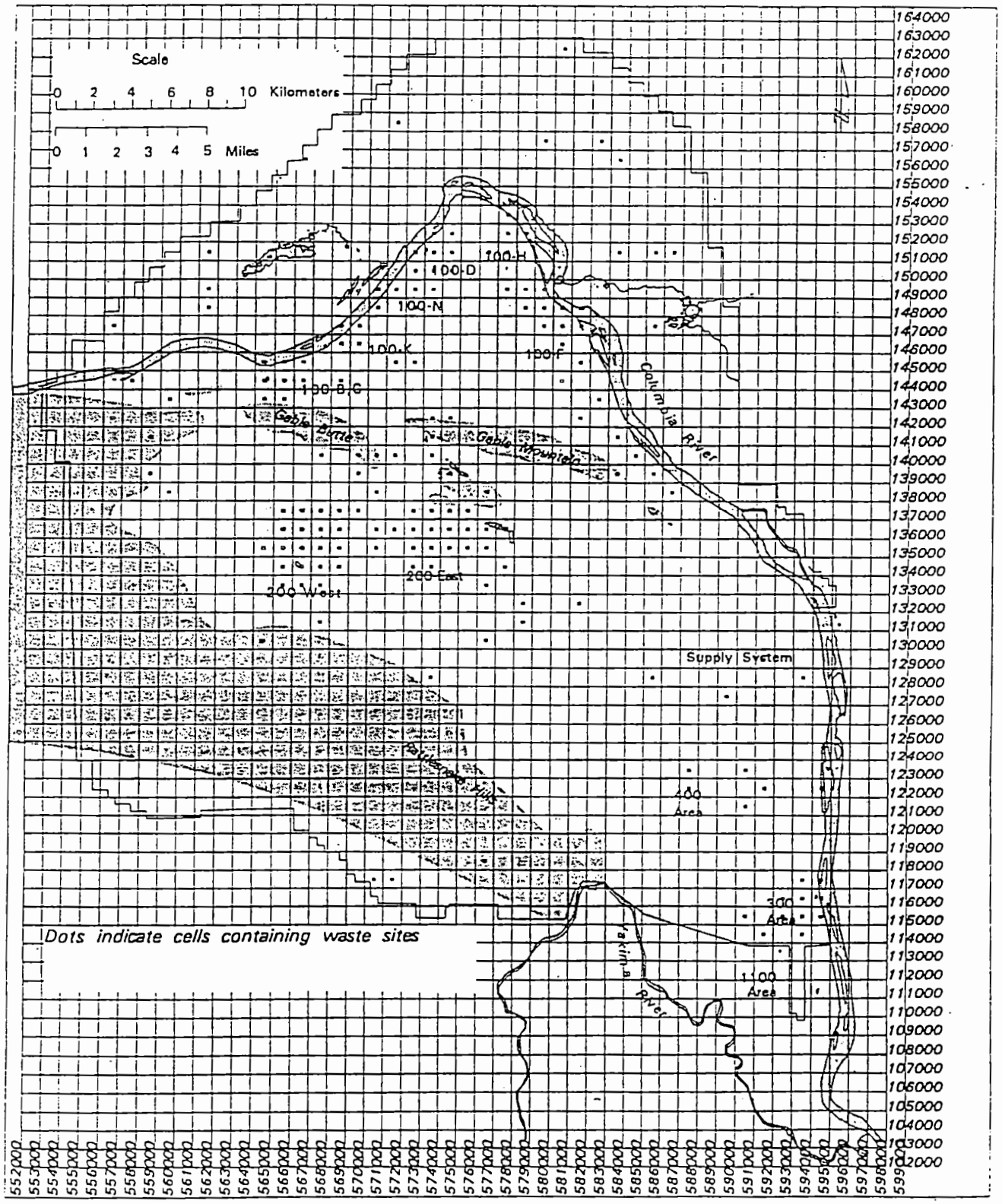
This appendix summarizes the No-Action Alternative (baseline) risk assessment methodology used in the *Hanford Remedial Action Environmental Impact Statement* (EIS). The general approach in this EIS was to estimate the cancer and noncancer risks of the No-Action Alternative and to compare the results with the risk range identified in the *National Contingency Plan* (40 CFR 300) as a target risk range for *Comprehensive Environmental Response, Compensation, and Liability Act* sites. This comparison allows a preliminary determination of whether various potential land uses are consistent with existing site risks. This requires the incremental lifetime cancer risk under a given scenario to fall within or be lower than a range of $10^{-4}$ to $10^{-6}$ (one in ten thousand to one in a million); and requires that exposure to hazardous chemicals to be lower than threshold values recommended by the U.S. Environmental Protection Agency and other regulatory authorities. If a potential land use is not consistent with the risk for a given area of the site, the U.S. Department of Energy (DOE), after consultation with stakeholders and appropriate regulatory authorities, would decide whether to clean the site to a level acceptable for the proposed land use or to change the anticipated land use to a more restricted one.

Several key simplifying concepts were necessary to develop a methodology to assess site-wide risks at a site as large and as complex as Hanford, including:

- defining the site as a grid of cells each 1 km by 1 km (0.6 mi by 0.6 mi)
- aggregating hazardous constituents within each cell
- using well-defined discrete exposure scenarios already established in existing site methodology documents (DOE-RL 1993a)
- separating the risk assessment process into discrete modules that could be dealt with independently and then combined
- using unit risk factors (URF) in this modular approach to facilitate risk estimates as source terms vary
- presenting risk in readily understood graphical contour plots.

Because of the resource demands associated with individually assessing risk at a large number of potential contaminant release sites (more than 1,000), an approach had to be developed to aggregate the waste sites and integrate the effects of their potential releases. The waste sites were aggregated by waste form: contaminated soil with overburden, contaminated soils without overburden, surface water, and groundwater. These sites were aggregated into cells defined by overlaying a grid of 1-km (0.6-mi) square cells over the site (Figure B1-1). The potential contaminant release and transport through the environment from each cell was estimated using computer models. The modeling results from multiple cells were combined to provide environmental concentrations in the air, soil, groundwater, and surface water to which a human or ecological receptor might be exposed.

*Figure B1-1. One-Kilometer Grid of the Hanford Site Showing Cells Containing Waste Sites.*



The exposure of a human receptor to hazards in the environment is largely controlled by how land use. The possibility of different land uses on the Site was addressed by estimating risks associated with four exposure scenarios for both on and offsite receptors: residential, agricultural, industrial, and recreational. Assumptions were made for each of these scenarios concerning the type and extent of contact with potentially contaminated media (air, soil, water, and food).

The risk to a given receptor is ultimately determined by the quantity of contaminant transported from a waste source to the receptor. Estimation of risk can be simplified by separating the process into discrete modules that can be dealt with separately and then combined. These modules include the source (waste) terms, hazard transport mechanisms, exposure scenarios, and the variables used to calculate risk from a given exposure.

The source term is the amount of hazardous material present at the beginning of the assessment (1990 for this EIS). The potentially contaminated media examined in this risk assessment are soil, groundwater, surface water, and air. Information used to compile the source terms was obtained from the Waste Information Data System (WIDS) (WHC 1991a), *Solid Waste Information Tracking System* (WHC 1991b), and Hanford Environmental Information System databases; limited field investigations (DOE-RL 1993b); the source terms for Environmental Restoration Disposal Facility documentation (DOE-RL and USACE 1994); and other sources where applicable.

Transport refers to the movement of a contaminant in the environment from the source to the potential receptor. Contaminants migrate through the air, surface water, and groundwater. Migration is modeled using computer programs that simulate the movement through the environment. To do this modeling, assumptions are made regarding the transfer of contaminants from one medium to the other, the types and quantities of food ingested, the source of drinking water supplies, proximity to the source terms, and barriers that isolate the source from the environment. The environmental transport code used in this EIS was the Multimedia Environmental Pollutant Assessment System (MEPAS), developed by Pacific Northwest Laboratory at Hanford (Droppo et al. 1991). Chemicals of concern that were not already in MEPAS were added.

After the transport of a contaminant through the environment is estimated, the exposure of individuals to the hazard is calculated. Four exposure scenarios from the *Hanford Site Baseline Risk Assessment Methodology* (HSBRAM) (DOE-RL 1993a) were used in this EIS, as described above. Three types of risk were estimated: cancers due to radionuclides, cancers due to chemical carcinogens, and noncancerous toxic effects. In accordance with *Hanford Site Baseline Risk Assessment Methodology (HSBRAM)* and the *National Contingency Plan*, the target incremental lifetime cancer risk to an individual permitted unrestricted access to a site is no greater than $10^{-4}$. The chemical noncarcinogenic risk, the hazard index, is defined as the ratio of the estimated exposure to a threshold value below which no toxic effects are expected. If the ratio is greater than 1.0, the estimated exposure exceeds the threshold, and potential adverse health impacts may occur.

Variations in the amount of contaminant present in source terms are accommodated in the transport model by starting with a unit concentration of each hazardous substance. Exposures and risks are estimated for all receptors on this unit basis, which results in URFs for each hazardous constituent. The unit risk is the amount of risk associated with one unit of the substance present at the source location. The risk associated with a given source is then estimated by multiplying the URF by the estimate of actual amount of hazardous constituent present.

To estimate risk to future generations, several future time periods were analyzed for the No-Action Alternative. These times were selected to correspond with the expected duration of remedial activities and an assumed future loss of institutional control. This methodology allows for evaluation of overall risk and is capable of accounting for both the effects of widely scattered release sites and the timing of remedial activities. While the methodology used in this EIS arrives at the same result as if each of the 892 contaminated sites were analyzed independently and added together, the number of calculations required is greatly reduced.

## *B1.2 Remediation Risk Estimation*

Risks during remediation were estimated as the potential consequences of three types of accidents:

- accidents during excavation of the Columbia River shoreline
- accidents during the pumping and treating of contaminated groundwater
- accidents during excavation of waste sites.

In addition, one accident was considered under the No-Action Alternative. This accident consists of a range fire that burns a 2.6 $km^2$ (1 $mi^2$) area of the Hanford Site. This accident is considered because of its likelihood of occurrence (approximately once every 10 years) and its lack of dependence on the alternative selected. Accidents resulting from natural occurrences such as earthquakes, floods, and tornadoes were not considered because the scenario is incredible or because the accident itself would do greater damage than the subsequent release of materials. Such accidents would be considered in safety documentation related to the operation of the Site.

Source terms used for these accidents were the highest concentrations of all radioactive constituents identified in the region. Doses are expressed in committed effective dose equivalent (CEDE) for the on-site maximally exposed individual worker and for an individual member of the public at the point of nearest public access. Off-site doses are expressed in CEDE for the maximally exposed off-site individual at the point on the site boundary having the highest airborne concentrations of radionuclides. Population doses are expressed in collective CEDE for the maximally exposed off-site population out to 80 km (50 mi) from the center of the Hanford Site. Consequences of these accidents are expressed as increased probability of developing a fatal cancer as a result of the dose received, in the case of an exposed individual, and as increased latent cancer fatalities in the case of an exposed population. The conversion factors used to convert from dose received to these consequences are $4 \times 10^{-4}$ latent cancer fatalities per person-rem for workers and $5 \times 10^{-4}$ latent cancer fatalities per person-rem for the general population. The difference is attributable to the presence of sensitive subpopulations, such as children, in the general population (DOE 1993a).

Assumptions for the specific accident scenarios and for calculating impacts are discussed in detail in Appendix B5.

### *B1.2.1 Accident Scenario for Excavation of River Shoreline*

During excavation of the riverbank to remove contaminated soil, some of the contaminated soil is inadvertently released to the river. This contamination is transported downriver to the water treatment facilities in Richland, Kennewick, and Pasco. After being treated, the water is consumed by the residents of the three cities.

### *B1.2.2 Accident Scenario for Pumping and Treating Groundwater*

During groundwater treatment using reverse osmosis, a fire occurs and results in the destruction of the filtration unit and the release of chemicals and radionuclides. The contamination is aerosolized and transported to the nearby population. The nearby population is outdoors during the entire accident and is exposed to the airborne contaminants.

### *B1.2.3 Accident Scenario for Excavation of Hazardous Waste Sites*

During the excavation of a waste site, some unexpected reactive material is encountered and inadvertently detonated. The resulting explosion disperses a quantity of hazardous and radioactive material to the environment.

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# Appendix B2

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# B2.0 Source Terms

The signing of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1989) in December 1989, commenced remedial activities on the Hanford Site. The times selected for assessment of risks were based in part on schedules in the Tri-Party Agreement. The baseline time ($t=0$ or $T_0$) represents the initial contaminant inventory present at the start of remediation. Available records indicate the inventory of contaminants at the time of disposal. These values differ because of radioactive decay and biological degradation, as well as dispersion of the contaminants through the environment.

Contaminated media at the Hanford Site include soil, groundwater, surface water, and air. The introduction of contaminants from cribs, trenches, retention basins, solid waste burial grounds, and spills and leaks from storage tanks and pipes resulted in soil contamination. The majority of the waste is in a solid form and is relatively stable, resulting in a low potential for air contamination from suspended hazardous and radioactive materials and volatilized gases. Groundwater contamination resulted from liquid waste discharged into the aquifer and soil column at various waste sites and from migration of contaminants from soil into the aquifer.

The soil source terms for the *Hanford Remedial Action Environmental Impact Statement* (EIS) were derived from several Hanford databases and documents. The *Waste Information Data System (WIDS)* (WHC 1991a), which is the official Hanford waste site database, was used as the primary data source. This information was cross checked against additional sources and, when necessary, supplemented with external sources, such as limited field investigations (DOE-RL 1993b), the source term developed for the Environmental Restoration Disposal Facility (ERDF) (DOE-RL and USACE 1994), and other sources where applicable.

Groundwater source-term data were obtained from published documents concerning groundwater monitoring activities at Hanford. The data are presented in Table B2-1. Groundwater is discussed further in Appendix B3.

## B2.1 Sites in Scope

All facilities and part-practice waste units, TSD facilities, and surplus facilities within the scope of this EIS are listed in Appendix A.

## B2.2 Sources of Data for Contaminated Soil

The sources of data for this EIS were a combination of two electronic databases and various technical documents. These databases provided the primary source-term data for this EIS, with supplemental information being supplied from various technical documents.

### B2.2.1 Databases

The two databases used for the risk assessment in this EIS were: WIDS (WHC 1991a) and the *Solid Waste Information Tracking System* (SWITS) (WHC 1991b). The applicability and uses of each of these are discussed in the following sections.

*B2.2.1.1 Waste Information Data System.* The *Waste Information Data System* was the primary source-term database for this EIS. This database addresses approximately 1,660 individual waste sites at Hanford. Although WIDS contains all of these sites, specific contaminant inventories are limited to approximately 350 sites. Of the sites in scope, 298 have contaminant information in WIDS. One reason for the lack of information is that not all sites listed in WIDS were specifically designed for contaminant discharges or burials. A large number of the sites were temporary hazardous waste storage/staging areas, reactor cooling water structures located on the "cold" or uncontaminated side of the reactor buildings, and other associated noncontaminated sites such as septic tanks. Specific sites within WIDS are addressed using an alphanumeric code that designates the specific location or area, the contaminant type present (solid or liquid) at the site, and the sequential listing number for the site (WHC 1991a). WIDS relies on past waste disposal records and estimation of waste disposal based on knowledge of the process history of each site. The database does not contain any recent monitoring information.

Several fields located within the master file of WIDS provided information that was not specific enough to be used in risk assessment or transport modeling. When necessary, assumptions were made to translate this information into a usable form. Table B2-2 presents these assumption(s) (WHC 1991a).

*B2.2.1.2 Solid Waste Information Tracking System.* The *Solid Waste Information Tracking System* (WHC 1991b) is a database containing solid waste burial ground inventories at Hanford. This database provides chemical and radiological inventories, waste volumes, and operation dates for all solid waste burial grounds. Discrepancies between SWITS and WIDS were found for solid waste burial ground inventories for the 100 Areas. An example of this problem is the data for site 118-B-3. The radiological inventory in WIDS lists 1 Ci of cobalt-60 while SWITS lists 1,220 Ci of cobalt-60. This problem was reconciled by comparing inventories for all solid waste burial grounds between the two databases. If no site information existed in WIDS, the SWITS value was accepted. If a discrepancy existed between the databases, the larger or more conservative inventory was always used.

More comprehensive data was available for solid waste burial grounds in the 200 Areas, where the majority of solid waste exists. Following a thorough review of the data for these solid waste burial grounds, it was determined that WIDS and SWITS both accurately identified the waste present. Therefore, WIDS was used for the 200 Areas, as well as for the 300 Area and 600 Area sites.

### *B2.2.2 Supplemental Documents*

Published U.S. Department of Energy (DOE) documents provided additional information on sites with little or no data. In the 100 Areas, sources included *Radiological Characterization of the Retired 100 Areas* (Dorien 1978), the *Remedial Investigation and Feasibility Study Work Plan for the 100-BC-2 Operable Unit, Hanford Site, Richland, Washington* (DOE-RL 1993c), and the *Source Inventory Development Engineering Study for the Environmental Restoration Disposal Facility* (DOE-RL and USACE 1994). Data for the 200 Areas were from WIDS. WIDS data were cross-checked with published documents and determined to be the best available data. The *Source Inventory Development Engineering Study for the Environmental Restoration Disposal Facility* by the U.S. Army Corps of Engineers (USACE) supplied missing data or was used to supplement WIDS data. WIDS and USACE also constituted the primary data source for all the other areas (DOE-RL and USACE 1994).

*B2.2.2.1 Radiological Characterization of the Retired 100 Area Waste Sites*. The *Radiological Characterization of the Retired 100 Areas* waste sites was determined to be a reliable supplemental source of data for the 100 Areas. This study, performed in 1976, characterized radionuclide concentrations and inventories for solid and liquid waste disposal facilities, leakage areas, reactors, and associated facilities. For the purposes of this study, waste sites were broken down into the following classes: retention basin systems, miscellaneous cribs and trenches, solid waste burial grounds, reactors, fuel storage basins, and contaminated ancillary facilities. Supplemental data from this study were applied to approximately 30 sites in the 100 Areas (Dorien 1978).

*B2.2.2.2 Remedial Investigation and Feasibility Study Work Plans*. The *Remedial Investigation and Feasibility Study Work Plan for the 100-BC-2 Operable Unit, Hanford Site, Richland, Washington* (DOE-RL 1993c) was developed as a requirement of the Tri-Party Agreement (Ecology et al. 1989). This report focuses on reaching early decisions to initiate cleanup projects and maximizing the use of existing data, coupled with short timeframe investigations where necessary. Work plans are broken down by individual operable units. The work plans that supplement data for this EIS deal specifically with the 100 Areas. Each operable unit work plan incorporates a site-by-site breakdown of an area. Supplemental information from work plans was used for approximately 20 sites within the 100 Areas. Because N Reactor was the last reactor shut down, the adjacent 100-N Area sites had few characterization studies performed. General sources of data for the 100-N Area, as indicated in the appropriate work plans, were derived from field logbooks, verified sample analyses, historical data, chain of custody forms, quality assurance/quality control data, reports, meeting minutes, telephone conversations, archived samples, raw sample data, videotapes, magnetic media and supporting documentation, paper tapes, personnel training records, exposure records, health and safety records, and compliance and regulatory data (DOE-RL and USACE 1994; DOE-RL 1993c).

*B2.2.2.3 Source Inventory Development Engineering Study for the Environmental Restoration Disposal Facility*. This study was prepared by DOE-RL and USACE (1994) to provide necessary information for the design of the proposed ERDF. USACE analyzed waste sites in the 100 and 300 Areas to estimate the types and quantities of waste to be disposed at the proposed ERDF. Supplemental data used from this document include but are not limited to contaminated waste volumes, excavation dimensions, and noncontaminated soil (overburden) volumes.

*B2.2.2.4 Limited Field Investigation Reports*. The *Limited Field Investigation Report for the 100-HR-1 Operable Unit* (DOE-RL 1993b) is intended to identify those sites within the 100-HR-1 Operable Unit that pose an unacceptable risk that warrants action. These sites are recommended as candidates for Interim Response Measures.

Three limited field investigation (LFI) reports for soils have been produced to date. These are for Operable Units 100-BC-1, 100-HR-1, and 100-DR-3. These three LFIs were obtained and researched to supplement data for this EIS. The data were used as a quality assurance cross reference for this EIS. In some instances, where conflicting data existed, the LFIs assisted in determining which data to use.

## *B2.3 Source of Data for Surface Water*

The primary source of data addressing surface water sites was the programmatic environmental impact statement source-term description (Short and Smith 1994) produced by Pacific Northwest Laboratory. This source-term compilation addressed the six known surface water sites at Hanford. The six sites are West Lake, B Pond, 400 Area Process Lagoon, N Springs, the Columbia River, and

the 400 Area Percolation Ponds. Table B2-3 presents a summary of these sites and their characteristics.

## *B2.4 Source of Data for Groundwater*

Groundwater data were obtained from available documents and from personal communications to a very limited degree. The primary documents used are referenced in Table B2-4. Other documents used are listed as a footnote to Table B2-4.

## *B2.5 Cell Designation*

A regional geographic information system (GIS) cartesian grid was established over a 160- by 160-km (96- by 96-mi) area, with the Hanford Site at the center (Figure B2-1). The cells were defined by overlaying the state coordinate grid over the Hanford Site and surrounding area. The Hanford Site was further subdivided into a smaller grid of 1-km (0.6 mi) square cells (Figure B2-2).

The cells are labeled by the intersecting lines in the lower left corner of the cell. The cell identification numbers start with the first three numbers of the east/west coordinates followed by the first three numbers of the north/south coordinates of the cell. For example, cell number 565144 represents east/west coordinates of 565000 meters and north/south coordinates of 144000 meters from the origin. Using a state plane coordinate overlay on the GIS maps, a total of 160 cells that contain waste sites have been identified on the Hanford Site. By using the cell system, 892 sites in scope are scaled down to 160 sites. Each cell contains one aggregated site that represents all the sites within that cell. Figure B2-3 is an example of a 1-km (0.6-mi) square cell.

## *B2.6 Data Aggregation*

Because 892 waste sites and facilities have been identified within the scope of this EIS, analyzing each site individually to determine the regional impacts would not be productive. From a regional perspective, multiple waste sites at the same geographical location have an appearance similar to that of a large, single, waste site. For example, a source with an areal distribution begins to appear as a point source as the viewer retreats from the source.. As such, the impacts associated with the real distribution should approach the predicted impacts that would occur from a point source as the distance from the source increases. This phenomenon is known as being spatially far-field. Using this concept, the waste sites in any 1-km (0.6-mi) square cell can be combined and represented as an aggregated waste site. Similar waste types are combined (e.g., contaminated soils with contaminated soils and liquid ponds with liquid ponds). Figure B1-1 shows the cells that contain the aggregated waste sites.

9613470.0587

*Figure B2-1. Ten-Kilometer Grid with the Hanford Site at the Center.*

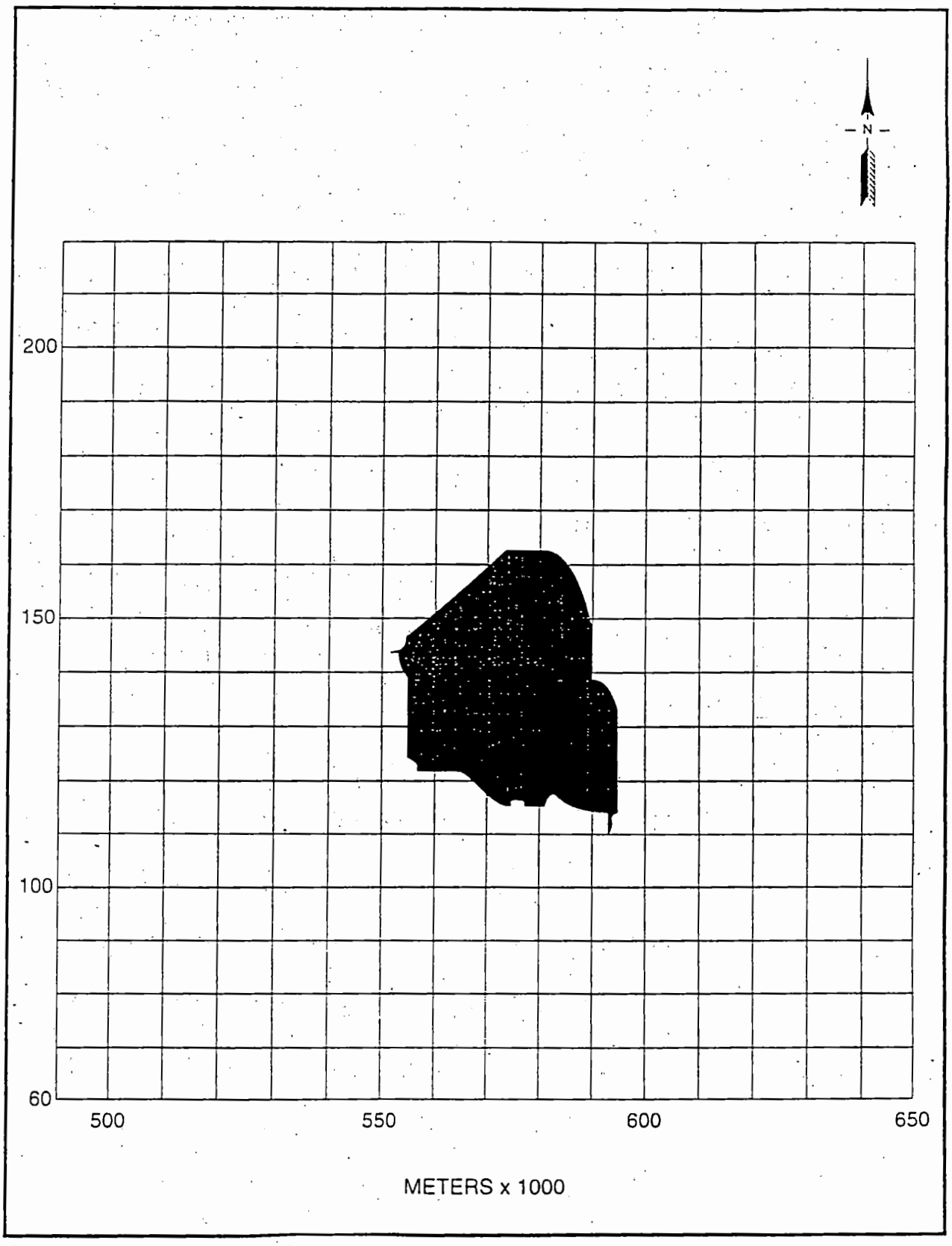
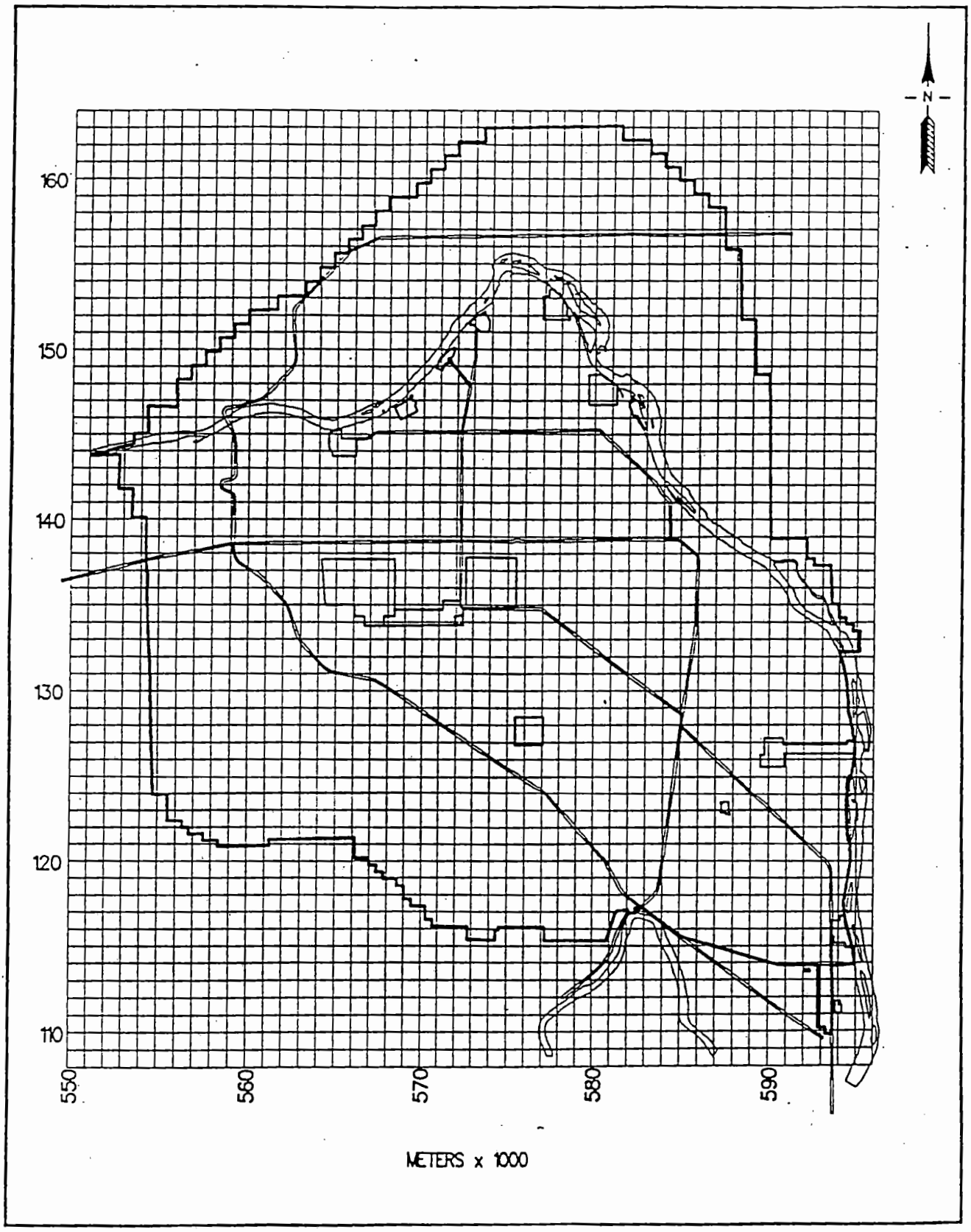


*Figure B2-2. One-Kilometer Grid of the Hanford Site.*



9613470.0588

*Figure B2-3. One-Kilometer by One-Kilometer Cell with Cell Identification Number.*

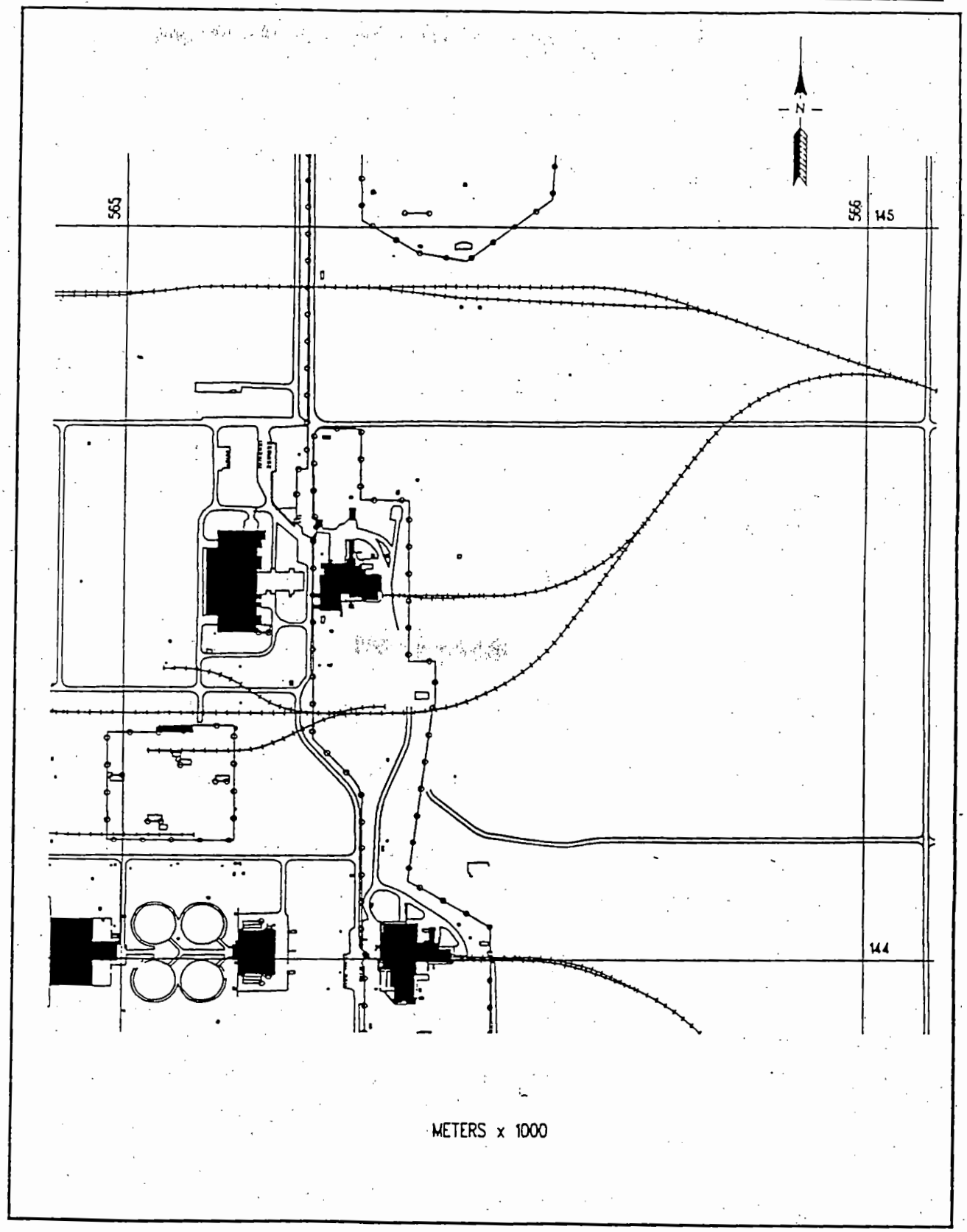


Table B2-5 presents the characteristics of waste sites. The table provides a description of sites by site type, dimensions, contaminated volume, depth, overburden data, volume stored at the site, decay date, and dates of operation.

Table B2-6 presents chemical inventories for the waste sites within the scope of this document. This table presents the inventory for each waste site by site code, cell identification number (ID), and chemical present. Table B2-7 presents radionuclide inventories in a similar manner. Table B2-8 is an aggregated summary of surface sites with contaminated media located within 0.3 m (1 ft) of the surface. Subsurface sites with contaminated media located greater than 0.3 m (1 ft) below the surface are presented in Table B2-9.

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 560141 | | | | | | | | | | | |
| 560142 | | | | | | | | | | | |
| 560144 | | | 1.00E-12 | | | | | | | | |
| 560145 | | | 1.00E-12 | | | | | | | | |
| 560146 | | | 1.00E-12 | | | | | | | | |
| 561141 | | | | | | | | | | | |
| 561144 | | | 1.00E-12 | | | | | | | | |
| 561145 | | | 1.00E-12 | | | | | | | | |
| 561146 | | | 1.00E-12 | | | | | | | | |
| 562141 | | | | | | | | | | | |
| 562144 | | | 1.00E-12 | | | | | | | | |
| 562145 | | | 1.00E-12 | | | | | | | | |
| 562146 | | | 1.00E-12 | | | | | | | | |
| 563143 | | | 1.00E-12 | | | | | | | | |
| 563144 | | | 1.00E-12 | | | | | | | | |
| 563145 | | | 1.00E-12 | | | | | | | | |
| 563146 | | | 1.00E-12 | | | | | | | | |
| 564134 | | | | | | | | | | 1.00E-08 | |
| 564135 | | | | | | | | | | 1.00E-08 | |
| 564136 | | | | | | | | | | 1.00E-08 | |
| 564143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 564144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 564145 | | | 1.00E-12 | | | | | | | | |
| 565134 | | | | | | | | | 2.00E-08 | 1.00E-07 | |
| 565135 | | | 1.00E-12 | | | | | | 2.00E-08 | 5.00E-07 | 1.00E-08 |
| 565136 | | | 1.00E-12 | | | | | | 2.00E-08 | 1.00E-07 | |
| 565137 | | | | | | | | | | 1.00E-08 | |
| 565143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 565144 | | | 1.00E-12 | | | 8.00E-15 | 5.00E-14 | | | | |
| 565145 | | | 1.00E-12 | | | 5.00E-14 | | | | | |
| 566133 | | | 2.00E-11 | | | | 5.00E-12 | | 6.00E-09 | | |
| 566134 | | | 1.50E-09 | | | | 5.00E-12 | | 2.00E-08 | 1.00E-07 | 1.00E-08 |
| 566135 | | | 2.00E-11 | | 1.00E-15 | | 2.50E-12 | | 2.00E-08 | 4.00E-06 | 3.00E-08 |
| 566136 | | | 2.00E-11 | | | | 5.00E-14 | | 2.00E-08 | 2.00E-06 | 3.00E-08 |
| 566137 | | | 1.00E-12 | | | | 5.00E-14 | | | 1.00E-06 | 1.00E-08 |
| 566142 | | | | | | | 5.00E-14 | | | | |
| 566143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 566144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 566145 | | | 1.00E-12 | | | 5.00E-14 | 5.00E-14 | | | | |
| 566146 | | | | | | 8.00E-15 | | | | | |
| 567132 | | | 2.00E-11 | | | | | | | | |
| 567133 | | | 2.50E-09 | 1.00E-14 | | | 5.00E-12 | | 6.00E-09 | | |
| 567134 | | | 2.50E-09 | 2.00E-14 | | | 2.00E-11 | 2.00E-12 | 1.00E-08 | 1.00E-07 | |
| 567135 | | | 3.00E-12 | 5.00E-15 | | | 2.00E-11 | 2.00E-12 | | 2.00E-06 | 3.00E-08 |
| 567136 | | | 2.00E-11 | 1.00E-15 | | | 9.00E-13 | 1.00E-13 | | 1.00E-06 | 2.00E-08 |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 560141 | | | | 2.00E-05 | | | | |
| 560142 | | | | 4.50E-05 | | | | |
| 560144 | | | | | | | | |
| 560145 | | | | | | | | |
| 560146 | | | | | | | | |
| 561141 | | | | 2.00E-05 | | | | |
| 561144 | | | | | | | | |
| 561145 | | | | | | | | |
| 561146 | | | | | | | | |
| 562141 | | | | 2.00E-05 | | | | |
| 562144 | | | | | | | | |
| 562145 | | | | | | | | |
| 562146 | | | | | | | | |
| 563143 | | | | | | | | |
| 563144 | | | | | | | | |
| 563145 | | | | | | | | |
| 563146 | | | | | | | | |
| 564134 | | | | | | | | |
| 564135 | | | | | | | | |
| 564136 | | | | | | | | |
| 564143 | | | | | | | | |
| 564144 | | | | | | | | |
| 564145 | | | | | | | | |
| 565134 | | | | | | | | |
| 565135 | | | | 4.50E-05 | | | | |
| 565136 | | 2.00E-07 | | 4.50E-05 | | | | |
| 565137 | | 5.00E-08 | | 4.50E-05 | | | | |
| 565143 | | | | | | | | |
| 565144 | | | | 2.00E-05 | | | | |
| 565145 | | | | 2.00E-05 | | | | |
| 566133 | | 3.00E-07 | | | | | | |
| 566134 | | 3.00E-07 | | 1.00E-04 | | | | |
| 566135 | | 5.00E-08 | 4.00E-06 | 2.50E-04 | 5.00E-09 | | | |
| 566136 | | 2.00E-07 | 4.00E-06 | 2.50E-04 | 2.50E-08 | | | |
| 566137 | | 5.00E-08 | | 5.00E-04 | 5.00E-09 | | | |
| 566142 | | | | | | | | |
| 566143 | | | | | | | | |
| 566144 | | | | 2.00E-05 | | | | |
| 566145 | | | | | | | | |
| 566146 | | | | | | | | |
| 567132 | | | | | | | | |
| 567133 | | 3.00E-07 | | 4.50E-05 | 2.50E-08 | | | |
| 567134 | | 2.00E-07 | 4.00E-06 | 5.00E-04 | 1.00E-08 | | | |
| 567135 | | | | 5.00E-04 | 5.00E-09 | | | |
| 567136 | | | | 5.00E-04 | 5.00E-09 | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 567137 | | | 2.00E-10 | 1.00E-15 | | | 5.00E-14 | 1.00E-13 | | 1.00E-06 | 1.00E-08 |
| 567138 | | | | | | | | | | 1.00E-08 | |
| 567142 | | | | | | | 5.00E-14 | | | | |
| 567143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 567144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 567145 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 567146 | | | 1.00E-12 | | | | | | | | |
| 568132 | | | 2.00E-11 | 1.00E-15 | | | | | | | |
| 568133 | | | 1.50E-09 | 2.00E-14 | | | | | | | |
| 568134 | | | 2.50E-09 | 2.00E-14 | | | 1.00E-11 | 1.00E-13 | | 1.00E-08 | |
| 568135 | | | 3.00E-12 | 1.00E-15 | | | 1.00E-11 | 1.00E-13 | | 1.00E-07 | |
| 568136 | | | 2.00E-11 | | | | 5.00E-14 | | | 1.00E-08 | |
| 568137 | | | 2.00E-11 | | | | 5.00E-14 | | | 5.00E-08 | |
| 568138 | | | | | | | | | | 1.00E-08 | |
| 568142 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 568143 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 568144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 568145 | | | 1.00E-12 | | | | | | | | |
| 568146 | | | 1.00E-12 | | | 8.00E-15 | | | | | |
| 568147 | | | 1.00E-12 | | | | | | | | |
| 569132 | | | 2.00E-11 | 1.00E-15 | | | | | | | |
| 569133 | | | 2.00E-10 | 2.00E-14 | | | | | | | |
| 569134 | | | 2.00E-10 | 2.00E-14 | | | 9.00E-13 | | | 1.00E-08 | |
| 569135 | | | 2.00E-10 | 1.00E-15 | | | 5.00E-14 | | | 1.00E-08 | |
| 569136 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 569137 | | | | | | | | | | | |
| 569142 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 569143 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 569144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 569145 | | | 1.00E-12 | | | | | | | | |
| 569146 | | | 2.00E-10 | | | | | | | | |
| 569147 | | | 2.00E-10 | | | 8.00E-15 | | | | | |
| 569148 | | | | | | 8.00E-15 | | | | | |
| 570132 | | | 2.00E-11 | 1.00E-15 | | | | | | | |
| 570133 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 570134 | | | 2.00E-10 | 1.00E-15 | | | 5.00E-14 | | | | |
| 570135 | | | 2.00E-10 | 1.00E-15 | | | 5.00E-14 | | | | |
| 570136 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 570137 | | | | | | | | | | | |
| 570139 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 570140 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 570141 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 570142 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 570143 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 570144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 567137 | | 5.00E-08 | 2.00E-06 | 5.00E-04 | | | | |
| 567138 | | | | 1.00E-04 | | | | |
| 567142 | | | | | | | | |
| 567143 | | | | | | | | |
| 567144 | | | | | | | | |
| 567145 | | | | | | | | |
| 567146 | | | | | | | | |
| 568132 | | | | | | | | |
| 568133 | | | | | | | | |
| 568134 | | | | 2.50E-04 | | | | |
| 568135 | | | | 5.00E-04 | | | | |
| 568136 | | | | 5.00E-04 | | | | |
| 568137 | | | | 2.50E-04 | | | | |
| 568138 | | | | 4.50E-05 | | | | |
| 568142 | | | | | | | | |
| 568143 | | | | | | | | |
| 568144 | | | | | | | | |
| 568145 | | | | | | | | |
| 568146 | | | | 1.00E-04 | | | | |
| 568147 | | | | 4.50E-05 | | | | |
| 569132 | | | | | | | | |
| 569133 | | | | | | | | |
| 569134 | | | | 1.00E-04 | | | | |
| 569135 | | | | 1.00E-04 | | | | |
| 569136 | | | | 1.00E-04 | | | | |
| 569137 | | | | 4.50E-05 | | | | |
| 569142 | | | | | | | | |
| 569143 | | | | 2.00E-05 | | | | |
| 569144 | | | | 2.00E-05 | | | | |
| 569145 | | | | | | | | |
| 569146 | | | | 2.00E-05 | | | | |
| 569147 | | 1.00E-07 | | 2.00E-05 | | | | |
| 569148 | | 1.00E-07 | | | | | | |
| 570132 | | | | | | | | |
| 570133 | | | | | | | | |
| 570134 | | | | 1.00E-04 | | | | |
| 570135 | | | | 1.00E-04 | | | | |
| 570136 | | | | 4.50E-05 | | | | |
| 570137 | | | | 4.50E-05 | | | | |
| 570139 | | | | | | | | |
| 570140 | | | | | | | | |
| 570141 | | | | 2.00E-05 | | | | |
| 570142 | | | | 2.00E-05 | | | | |
| 570143 | | | | 2.00E-05 | | | | |
| 570144 | | | | 2.00E-05 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 570145 | | | 1.00E-12 | | | | | | | | |
| 570146 | | | 1.00E-12 | | | | | | | | |
| 570147 | | | 1.00E-12 | | | | | | | | |
| 570148 | | | 1.00E-12 | | | | | | | | |
| 570149 | | | 1.00E-12 | | | | | | | | |
| 571132 | | | 1.00E-12 | | | | | | | | |
| 571133 | | | 2.00E-11 | | | | | | | | |
| 571134 | | | 2.00E-11 | | | | | | | | |
| 571135 | | | 2.00E-11 | | | | | | | | |
| 571136 | | | 2.00E-11 | | | | | | | | |
| 571137 | | | 2.00E-11 | | | | | | | | |
| 571139 | | | 1.00E-12 | | | | 9.00E-13 | | | | |
| 571140 | | | 1.00E-12 | | | | 9.00E-13 | | | | |
| 571141 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 571142 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 571143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 571144 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 571145 | | | 1.00E-12 | | | | | | | | |
| 571146 | | | 1.00E-12 | | | | | | | | |
| 571147 | | | 1.00E-12 | | | | | | | | |
| 571148 | | | 1.00E-12 | | | | | | | | |
| 571149 | | | 2.00E-11 | | | 1.00E-12 | | | | | |
| 571150 | | | 2.00E-11 | | | 5.00E-14 | | | | | |
| 572133 | | | 1.00E-12 | | | | | | | | |
| 572134 | | | 1.00E-12 | | | | | | | | |
| 572135 | | | 2.00E-11 | | | | | | | | |
| 572136 | | | 2.00E-11 | | | | | | | | |
| 572137 | | | 2.00E-10 | | | | 9.00E-13 | | 6.00E-09 | | |
| 572138 | | | 1.00E-12 | 1.00E-15 | | | 9.00E-13 | | 6.00E-09 | | |
| 572139 | | | 1.00E-12 | | | | 9.00E-13 | | | | |
| 572140 | | | 1.00E-12 | | | | 9.00E-13 | | | | |
| 572141 | | | 1.00E-12 | | | | | | | | |
| 572142 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 572143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 572144 | | | 1.00E-12 | | | | | | | | |
| 572145 | | | 1.00E-12 | | | | | | | | |
| 572146 | | | 1.00E-12 | | | | | | | | |
| 572147 | | | 1.00E-12 | | | | | | | | |
| 572148 | | | 1.00E-12 | | | | | | | | |
| 572149 | | | 2.00E-11 | | | 5.00E-14 | | | | | |
| 572150 | | | 2.00E-11 | | | | | | | | |
| 572151 | | | 1.00E-12 | | | | | | | | |
| 572152 | | | | | | | | | | | |
| 573134 | | | 1.00E-12 | | | | | | | | |
| 573135 | | | 2.00E-10 | 1.00E-15 | | | | | 1.00E-08 | | 1.00E-08 |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 570145 | | | | | | | | |
| 570146 | | 5.00E-08 | | | | | | |
| 570147 | | 1.00E-07 | | 2.00E-05 | | | | |
| 570148 | | 1.00E-07 | | | | | | |
| 570149 | | | | 4.50E-05 | | | | |
| 571132 | | | | | | | | |
| 571133 | | | | | | | | |
| 571134 | | | | | | | | |
| 571135 | | | | 4.50E-05 | | | | |
| 571136 | | | | 4.50E-05 | | | | |
| 571137 | | | | 4.50E-05 | | | | |
| 571139 | | | | 4.50E-05 | | | | |
| 571140 | | | | 4.50E-05 | | | | |
| 571141 | | | | 2.00E-05 | | | | |
| 571142 | | | | 2.00E-05 | | | | |
| 571143 | | | | 2.00E-05 | | | | |
| 571144 | | | | 2.00E-05 | | | | |
| 571145 | | | | | | | | |
| 571146 | | | | | | | | |
| 571147 | | | | | | | | |
| 571148 | | | | | | | | |
| 571149 | | | | 4.50E-05 | | | | |
| 571150 | | | | | | | | |
| 572133 | | | | | | | | |
| 572134 | | | | | | | | |
| 572135 | | | | | | | | |
| 572136 | | | | 4.50E-05 | | | | |
| 572137 | | | | 4.50E-05 | | | | |
| 572138 | | | | 4.50E-05 | | | | |
| 572139 | | | | 4.50E-05 | | | | |
| 572140 | | | | 1.00E-04 | | | | |
| 572141 | | | | | | | | |
| 572142 | | | | 2.00E-05 | | | | |
| 572143 | | | | 2.00E-05 | | | | |
| 572144 | | | | 2.00E-05 | | | | |
| 572145 | | | | | | | | |
| 572146 | | | | | | | | |
| 572147 | | | | | | | | |
| 572148 | | | | | | | | |
| 572149 | | | | 2.00E-05 | | | | |
| 572150 | | 1.00E-07 | | 2.00E-05 | | | | |
| 572151 | | 1.00E-07 | | 4.50E-05 | | | | |
| 572152 | | 1.00E-07 | | | | | | |
| 573134 | | | | | | | | |
| 573135 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 573136 | | 1.20E-13 | 2.00E-10 | 1.00E-15 | 3.00E-14 | 2.50E-12 | 5.00E-14 | | 6.00E-09 | | |
| 573137 | | | 2.00E-10 | 1.00E-14 | | | 2.50E-12 | | 1.00E-08 | | |
| 573138 | 1.00E-13 | | 1.00E-12 | | | | 2.00E-11 | | 6.00E-09 | | |
| 573139 | 1.00E-13 | | 1.00E-12 | | | | 2.50E-12 | | 6.00E-09 | | |
| 573140 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 573141 | | | 1.00E-12 | | | | | | | | |
| 573142 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 573143 | | | 1.00E-12 | | | | 5.00E-14 | | | | |
| 573144 | | | 1.00E-12 | | | | | | | | |
| 573145 | | | 1.00E-12 | | | | | | | | |
| 573146 | | | 1.00E-12 | | | | | | | | |
| 573147 | | | 1.00E-12 | | | | | | | | |
| 573148 | | | 1.00E-12 | | | | | | | | |
| 573149 | | | 2.00E-11 | | | | | | | | |
| 573150 | | | 2.00E-11 | | | | | | | | |
| 573151 | | | 2.00E-11 | | | 8.00E-15 | | | | | |
| 573152 | | | 1.00E-12 | | | | | | | | |
| 574132 | | | 1.00E-12 | | | | | | | | |
| 574133 | | | 1.00E-12 | | | | | | | | |
| 574134 | | | 2.00E-10 | 1.00E-15 | | 8.00E-15 | 5.00E-14 | | 6.00E-09 | | |
| 574135 | | | 2.50E-09 | 2.00E-14 | | 8.00E-15 | 5.00E-14 | | 6.00E-09 | | |
| 574136 | | | 2.50E-09 | 5.00E-15 | | | 5.00E-14 | | 1.00E-08 | | |
| 574137 | | | 2.00E-11 | 1.00E-15 | | | 5.00E-14 | | 1.00E-08 | | |
| 574138 | 1.00E-13 | | 1.00E-12 | | | 8.00E-15 | 5.00E-12 | | | | |
| 574139 | | | 1.00E-12 | | | 8.00E-15 | 5.00E-14 | | | | |
| 574140 | | | 1.00E-12 | | | 8.00E-15 | | | | | |
| 574141 | | | 1.00E-12 | | | | | | | | |
| 574142 | | | 1.00E-12 | | | | | | | | |
| 574143 | | | 1.00E-12 | | | | | | | | |
| 574144 | | | 1.00E-12 | | | | | | | | |
| 574145 | | | 1.00E-12 | | | | | | | | |
| 574146 | | | 1.00E-12 | | | | | | | | |
| 574147 | | | 1.00E-12 | | | | | | | | |
| 574148 | | | 1.00E-12 | | | | | | | | |
| 574149 | | | 2.00E-11 | | | | | | | | |
| 574150 | | | 2.00E-11 | | | | | | | | |
| 574151 | | | 2.00E-11 | | | | | | | | |
| 574152 | | | 1.00E-12 | | | | | | | | |
| 574153 | | | 1.00E-12 | | | | | | | | |
| 574154 | | | 1.00E-12 | | | | | | | | |
| 575131 | | | 1.00E-12 | | | | | | | | |
| 575132 | | | 2.00E-11 | | | | | | | | |
| 575133 | | | 2.00E-11 | | | | | | | | |
| 575134 | | | 2.00E-10 | 1.00E-15 | | 8.00E-15 | 5.00E-14 | | 6.00E-09 | | |
| 575135 | | | 2.50E-09 | 2.00E-14 | | 8.00E-15 | 5.00E-14 | | 1.00E-08 | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 573136 | | | | 1.00E-04 | | | | |
| 573137 | | | | 4.50E-05 | | | | |
| 573138 | 5.00E-07 | | | 2.50E-04 | | | | |
| 573139 | | | | 1.00E-04 | | | | |
| 573140 | | | | | | | | |
| 573141 | | | | | | | | |
| 573142 | | | | | | | | |
| 573143 | | | | | | | | |
| 573144 | | | | | | | | |
| 573145 | | | | | | | | |
| 573146 | | | | | | | | |
| 573147 | | | | | | | | |
| 573148 | | | | | | | | |
| 573149 | | | | 2.00E-05 | | | | |
| 573150 | | | | 4.50E-05 | | | | |
| 573151 | | 1.00E-06 | | 4.50E-05 | | | | |
| 573152 | | 1.00E-06 | | 1.00E-04 | | | | |
| 574132 | | | | | | | | |
| 574133 | | | | | | | | |
| 574134 | | | | 2.00E-05 | | | | |
| 574135 | | | | 1.00E-04 | | | | |
| 574136 | | | | 4.50E-05 | | | | |
| 574137 | | | | | | | | |
| 574138 | 2.00E-07 | | | 1.00E-04 | | | | |
| 574139 | | | | 5.10E-08 | | | | |
| 574140 | | | | 4.60E-08 | | | | |
| 574141 | | | | | | | | |
| 574142 | | | | | | | | |
| 574143 | | | | | | | | |
| 574144 | | | | | | | | |
| 574145 | | | | | | | | |
| 574146 | | | | | | | | |
| 574147 | | | | | | | | |
| 574148 | | | | | | | | |
| 574149 | | | | 2.00E-05 | | | | |
| 574150 | | | | 2.00E-05 | | | | |
| 574151 | | 1.00E-07 | | 4.50E-05 | | | | |
| 574152 | | 1.00E-07 | | 1.00E-04 | | | | |
| 574153 | | 1.00E-07 | | 2.00E-05 | | | | |
| 574154 | | | | | | | | |
| 575131 | | | | | | | | |
| 575132 | | | | | | | | |
| 575133 | | | | | | | | |
| 575134 | | | | 2.00E-05 | | | | |
| 575135 | | 2.00E-07 | | 2.50E-04 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 575136 | | | 2.00E-11 | 5.00E-15 | | 8.00E-15 | 5.00E-14 | | 1.00E-08 | | |
| 575137 | | | 2.00E-11 | 1.00E-15 | | 8.00E-15 | | | 6.00E-09 | | |
| 575139 | | | 1.00E-12 | | | 8.00E-15 | | | | | |
| 575140 | | | 1.00E-12 | | | 8.00E-15 | | | | | |
| 575141 | | | 1.00E-12 | | | | | | | | |
| 575142 | | | 1.00E-12 | | | | | | | | |
| 575143 | | | 1.00E-12 | | | | | | | | |
| 575144 | | | 1.00E-12 | | | | | | | | |
| 575145 | | | 1.00E-12 | | | | | | | | |
| 575146 | | | 1.00E-12 | | | | | | | | |
| 575147 | | | 1.00E-12 | | | | | | | | |
| 575148 | | | 1.00E-12 | | | | | | | | |
| 575149 | | | 1.00E-12 | | | | | | | | |
| 575150 | | | 1.00E-12 | | | | | | | | |
| 575152 | | | 1.00E-12 | | | | | | | | |
| 575153 | | | 1.00E-12 | | | | | | | | |
| 575154 | | | 1.00E-12 | | | | | | | | |
| 576130 | | | 1.00E-12 | | | | | | | | |
| 576131 | | | 2.00E-11 | | | | | | | | |
| 576132 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 576133 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 576134 | | | 2.00E-11 | 1.00E-15 | | | | | 6.00E-09 | | |
| 576135 | | | 2.00E-11 | 1.00E-15 | | | | | 2.00E-08 | | |
| 576136 | | | 2.00E-11 | 1.00E-15 | | | | | 1.00E-08 | | |
| 576137 | | | 2.00E-11 | | | 8.00E-15 | | | 6.00E-09 | | |
| 576138 | | | 1.00E-12 | | | | | | | | |
| 576139 | | | 1.00E-12 | | | 8.00E-15 | | | | | |
| 576140 | | | 1.00E-12 | | | | | | | | |
| 576142 | | | 1.00E-12 | | | | | | | | |
| 576143 | | | 1.00E-12 | | | | | | | | |
| 576144 | | | 1.00E-12 | | | | | | | | |
| 576145 | | | 1.00E-12 | | | | | | | | |
| 576146 | | | 1.00E-12 | | | | | | | | |
| 576147 | | | 1.00E-12 | | | | | | | | |
| 576148 | | | 1.00E-12 | | | | | | | | |
| 576149 | | | 1.00E-12 | | | | | | | | |
| 576150 | | | 1.00E-12 | | | | | | | | |
| 576151 | | | 1.00E-12 | | | | | | | | |
| 576152 | | | 1.00E-12 | | | | | | | | |
| 576153 | | | 1.00E-12 | | | | | | | | |
| 576154 | | | 1.00E-12 | | | | | | | | |
| 577128 | | | 1.00E-12 | | | | | | | | |
| 577129 | | | 1.00E-12 | | | | | | | | |
| 577130 | | | 2.00E-11 | | | | | | | | |
| 577131 | | | 2.00E-11 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 575136 | | 2.00E-07 | | 1.00E-04 | | | | |
| 575137 | | | | | | | | |
| 575139 | | | | 1.00E-04 | | | | |
| 575140 | | | | 4.50E-05 | | | | |
| 575141 | | | | | | | | |
| 575142 | | | | | | | | |
| 575143 | | | | | | | | |
| 575144 | | | | | | | | |
| 575145 | | | | | | | | |
| 575146 | | | | | | | | |
| 575147 | | | | | | | | |
| 575148 | | | | | | | | |
| 575149 | | | | | | | | |
| 575150 | | | | | | | | |
| 575152 | | 5.00E-08 | | 2.00E-05 | | | | |
| 575153 | | 5.00E-08 | | | | | | |
| 575154 | | | | | | | | |
| 576130 | | | | 2.00E-05 | | | | |
| 576131 | | | | 2.00E-05 | | | | |
| 576132 | | | | 2.00E-05 | | | | |
| 576133 | | | | 2.00E-05 | | | | |
| 576134 | | | | | | | | |
| 576135 | | | | | | | | |
| 576136 | | | | | | | | |
| 576137 | | | | | | | | |
| 576138 | | | | | | | | |
| 576139 | | | | 1.00E-04 | | | | |
| 576140 | | | | 4.50E-05 | | | | |
| 576142 | | | | | | | | |
| 576143 | | | | | | | | |
| 576144 | | | | | | | | |
| 576145 | | | | | | | | |
| 576146 | | | | | | | | |
| 576147 | | | | | | | | |
| 576148 | | | | | | | | |
| 576149 | | | | | | | | |
| 576150 | | | | | | | | |
| 576151 | | | | | | | | |
| 576152 | | 1.00E-07 | | 2.00E-05 | | | | |
| 576153 | | 1.00E-07 | | 2.00E-05 | | | | |
| 576154 | | 1.00E-07 | | | | | | |
| 577128 | | | | | | | | |
| 577129 | | | | | | | | |
| 577130 | | | | 2.00E-05 | | | | |
| 577131 | | | | 2.00E-05 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 577132 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 577133 | | | 2.00E-10 | 5.00E-15 | | | | | | | |
| 577134 | | | 2.00E-11 | 1.00E-15 | | | | | | | |
| 577135 | | | 2.00E-11 | | | | | | 6.00E-09 | | |
| 577136 | | | 2.00E-11 | | | | | | 1.00E-08 | | |
| 577137 | | | 2.00E-11 | | | | | | 6.00E-09 | | |
| 577138 | | | 1.00E-12 | | | | | | | | |
| 577139 | | | 1.00E-12 | | | | | | | | |
| 577140 | | | 1.00E-12 | | | | | | | | |
| 577142 | | | 1.00E-12 | | | | | | | | |
| 577143 | | | 1.00E-12 | | | | | | | | |
| 577144 | | | 1.00E-12 | | | | | | | | |
| 577145 | | | 1.00E-12 | | | | | | | | |
| 577146 | | | 1.00E-12 | | | | | | | | |
| 577147 | | | 1.00E-12 | | | | | | | | |
| 577148 | | | 1.00E-12 | | | | | | | | |
| 577149 | | | 1.00E-12 | | | | | | | | |
| 577150 | | | 1.00E-12 | | | | | | | | |
| 577151 | | | 1.00E-12 | | | | | | | | |
| 577152 | | | 2.00E-11 | | | 8.00E-15 | | 2.00E-17 | | | |
| 577153 | | | 1.00E-12 | | | | | 4.00E-17 | | | |
| 578125 | | | | | | | | | | | |
| 578127 | | | 1.00E-12 | | | | | | | | |
| 578128 | | | 1.00E-12 | | | | | | | | |
| 578129 | | | 2.00E-11 | | | | | | | | |
| 578130 | | | 2.00E-11 | | | | | | 6.00E-09 | | |
| 578131 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 578132 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 578133 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 578134 | | | 2.00E-11 | | | | | | | | |
| 578135 | | | 2.00E-11 | | | | | | | | |
| 578136 | | | 2.00E-11 | | | | | | | | |
| 578137 | | | 1.00E-12 | | | | | | | | |
| 578138 | | | 1.00E-12 | | | | | | | | |
| 578139 | | | 1.00E-12 | | | | | | | | |
| 578142 | | | 1.00E-12 | | | | | | | | |
| 578143 | | | 1.00E-12 | | | | | | | | |
| 578144 | | | 1.00E-12 | | | | | | | | |
| 578145 | | | 1.00E-12 | | | | | | | | |
| 578146 | | | 1.00E-12 | | | | | | | | |
| 578147 | | | 1.00E-12 | | | | | | | | |
| 578148 | | | 1.00E-12 | | | | | | | | |
| 578149 | | | 1.00E-12 | | | | | | | | |
| 578150 | | | 1.00E-12 | | | | | | | | |
| 578151 | | | 1.00E-12 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 577132 | | | | 2.00E-05 | | | | |
| 577133 | | | | 2.00E-05 | | | | |
| 577134 | | | | | | | | |
| 577135 | | | | | | | | |
| 577136 | | | | | | | | |
| 577137 | | | | | | | | |
| 577138 | | | | | | | | |
| 577139 | | | | | | | | |
| 577140 | | | | | | | | |
| 577142 | | | | | | | | |
| 577143 | | | | | | | | |
| 577144 | | | | | | | | |
| 577145 | | | | | | | | |
| 577146 | | | | 2.00E-05 | | | | |
| 577147 | | | | 2.00E-05 | | | | |
| 577148 | | | | 2.00E-05 | | | | |
| 577149 | | | | | | | | |
| 577150 | | | | | | | | |
| 577151 | | | | | | | | |
| 577152 | | 1.00E-07 | | 2.00E-05 | | | | |
| 577153 | | | | 2.00E-05 | | | | |
| 578125 | | | | 2.00E-05 | | | | |
| 578127 | | | | | | | | |
| 578128 | | | | | | | | |
| 578129 | | | | 2.00E-05 | 5.00E-09 | | | |
| 578130 | | | | 2.00E-05 | 5.00E-09 | | | |
| 578131 | | | | 2.00E-05 | | | | |
| 578132 | | | | 2.00E-05 | | | | |
| 578133 | | | | 2.00E-05 | | | | |
| 578134 | | | | 2.00E-05 | | | | |
| 578135 | | | | | | | | |
| 578136 | | | | | | | | |
| 578137 | | | | | | | | |
| 578138 | | | | | | | | |
| 578139 | | | | | | | | |
| 578142 | | | | | | | | |
| 578143 | | | | | | | | |
| 578144 | | | | | | | | |
| 578145 | | | | 2.00E-05 | | | | |
| 578146 | | | | 4.50E-05 | 3.50E-08 | | | |
| 578147 | | | | 4.50E-05 | 3.50E-08 | | | |
| 578148 | | | | 4.50E-05 | | | | |
| 578149 | | | | 2.00E-05 | | | | |
| 578150 | | | | | | | | |
| 578151 | | | | 2.00E-05 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 578152 | | | 1.00E-12 | | | 8.00E-15 | | 4.00E-17 | | | |
| 578153 | | | | | | 8.00E-15 | | | | | |
| 579126 | | | 1.00E-12 | | | | | | | | |
| 579127 | | | 1.00E-12 | | | | | | | | |
| 579128 | | | 2.00E-11 | | | | | | | | |
| 579129 | | | 2.00E-11 | 1.00E-15 | | | | | | | |
| 579130 | | | 2.00E-10 | 1.00E-15 | | | | | 6.00E-09 | | |
| 579131 | | | 2.00E-10 | 1.00E-15 | | | | | 6.00E-09 | | |
| 579132 | | | 2.00E-10 | 1.00E-15 | | | | | | | |
| 579133 | | | 2.00E-11 | 1.00E-15 | | | | | | | |
| 579134 | | | 2.00E-11 | | | | | | | | |
| 579135 | | | 1.00E-12 | | | | | | | | |
| 579136 | | | 1.00E-12 | | | | | | | | |
| 579137 | | | 1.00E-12 | | | | | | | | |
| 579138 | | | 1.00E-12 | | | | | | | | |
| 579139 | | | 1.00E-12 | | | | | | | | |
| 579142 | | | 1.00E-12 | | | | | | | | |
| 579143 | | | 1.00E-12 | | | | | | | | |
| 579144 | | | 1.00E-12 | | | | | | | | |
| 579145 | | | 1.00E-12 | | | | | | | | |
| 579146 | | | 1.00E-12 | | | | | | | | |
| 579147 | | | 1.00E-12 | | | | | | | | |
| 579148 | | | 1.00E-12 | | | | | | | | |
| 579149 | | | 1.00E-12 | | | | | | | | |
| 579150 | | | 1.00E-12 | | | | | | | | |
| 579151 | | | 1.00E-12 | | | | | | | | |
| 580125 | | | 1.00E-12 | | | | | | | | |
| 580126 | | | 1.00E-12 | | | | | | | | |
| 580127 | | | 2.00E-11 | | | | | | | | |
| 580128 | | | 2.00E-11 | | | | | | | | |
| 580129 | | | 2.00E-11 | | | | | | | | |
| 580130 | | | 2.00E-10 | | | | | | | | |
| 580131 | | | 2.00E-10 | | | | | | | | |
| 580132 | | | 2.00E-10 | | | | | | | | |
| 580133 | | | 2.00E-11 | | | | | | | | |
| 580134 | | | 2.00E-11 | | | | | | | | |
| 580135 | | | 1.00E-12 | | | | | | | | |
| 580136 | | | 2.00E-11 | | | | | | | | |
| 580137 | | | 1.00E-12 | | | | | | | | |
| 580138 | | | 1.00E-12 | | | | | | | | |
| 580139 | | | 1.00E-12 | | | | | | | | |
| 580141 | | | 1.00E-12 | | | | | | | | |
| 580142 | | | 1.00E-12 | | | | | | | | |
| 580143 | | | 1.00E-12 | | | | | | | | |
| 580144 | | | 1.00E-12 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 578152 | | 1.00E-07 | | 4.50E-05 | | | | |
| 578153 | | 1.00E-07 | | | | | | |
| 579126 | | | | | | | | |
| 579127 | | | | | | | | |
| 579128 | | | | | | | | |
| 579129 | | | | 2.00E-05 | 5.00E-09 | | | |
| 579130 | | | | 2.00E-05 | 2.50E-08 | | 5.90E-09 | 3.70E-09 |
| 579131 | | | | 2.00E-05 | | | | |
| 579132 | | | | 2.00E-05 | | | | |
| 579133 | | | | 2.00E-05 | | | | |
| 579134 | | | | 2.00E-05 | | | | |
| 579135 | | | | | | | | |
| 579136 | | | | | | | | |
| 579137 | | | | | | | | |
| 579138 | | | | | | | | |
| 579139 | | | | | | | | |
| 579142 | | | | | | | | |
| 579143 | | | | | | | | |
| 579144 | | | | | | | | |
| 579145 | | | | 4.50E-05 | | | | |
| 579146 | | | | 1.00E-04 | 3.50E-08 | | | |
| 579147 | | | | 1.00E-04 | 3.50E-08 | | | |
| 579148 | | | | 4.50E-05 | | | | |
| 579149 | | | | 2.00E-05 | | | | |
| 579150 | | | | | | | | |
| 579151 | | | | | | | | |
| 580125 | | | | | | | | |
| 580126 | | | | | | | | |
| 580127 | | | | | | | | |
| 580128 | | | | 2.00E-05 | | | | |
| 580129 | | | | 2.00E-05 | | | | |
| 580130 | | | | 2.00E-05 | | | | |
| 580131 | | | | 2.00E-05 | | | | |
| 580132 | | | | 2.00E-05 | | | | |
| 580133 | | | | 2.00E-05 | | | | |
| 580134 | | | | | | | | |
| 580135 | | | | | | | | |
| 580136 | | | | | | | | |
| 580137 | | | | | | | | |
| 580138 | | | | | | | | |
| 580139 | | | | | | | | |
| 580141 | | | | | | | | |
| 580142 | | | | 2.00E-05 | | | | |
| 580143 | | | | 2.00E-05 | | | | |
| 580144 | | | | 4.50E-05 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 580145 | | | 1.00E-12 | | | | | | | | |
| 580146 | | | 2.00E-11 | | | | | | | | |
| 580147 | | | 2.00E-11 | | | 5.00E-14 | | | | | |
| 580148 | | | 1.00E-12 | | | 8.00E-15 | | | | | |
| 581124 | | | 1.00E-12 | | | | | | | | |
| 581125 | | | 1.00E-12 | | | | | | | | |
| 581126 | | | 2.00E-11 | | | | | | | | |
| 581127 | | | 2.00E-11 | | | | | | | | |
| 581128 | | | 2.00E-11 | | | | | | | | |
| 581129 | | | 2.00E-11 | | | | | | | | |
| 581130 | | | 2.00E-11 | | | | | | | | |
| 581131 | | | 2.00E-11 | | | | | | | | |
| 581132 | | | 2.00E-11 | | | | | | | | |
| 581133 | | | 2.00E-11 | | | | | | | | |
| 581134 | | | 2.00E-11 | | | | | | | | |
| 581135 | | | 2.00E-11 | | | | | | | | |
| 581136 | | | 1.00E-12 | | | | | | | | |
| 581137 | | | 2.00E-11 | | | | | | | | |
| 581138 | | | 1.00E-12 | | | | | | | | |
| 581139 | | | 1.00E-12 | | | | | | | | |
| 581141 | | | 1.00E-12 | | | | | | | | |
| 581142 | | | 1.00E-12 | | | | | | | | |
| 581143 | | | 1.00E-12 | | | | | | | | |
| 581144 | | | 1.00E-12 | | | | | | | | |
| 581145 | | | 1.00E-12 | | | | | | | | |
| 581146 | | | 1.00E-12 | | | | | | | | |
| 581147 | | | 1.00E-12 | | | 5.00E-14 | | | | | |
| 581148 | | | 1.00E-12 | | | | | | | | |
| 582123 | | | 1.00E-12 | | | | | | | | |
| 582124 | | | 1.00E-12 | | | | | | | | |
| 582125 | | | 2.00E-11 | | | | | | | | |
| 582126 | | | 2.00E-11 | | | | | | | | |
| 582127 | | | 2.00E-11 | | | | | | | | |
| 582128 | | | 2.00E-11 | | | | | | | | |
| 582129 | | | 2.00E-11 | | | | | | | | |
| 582130 | | | 2.00E-11 | | | | | | | | |
| 582131 | | | 2.00E-11 | | | | | | | | |
| 582132 | | | 2.00E-11 | | | | | | | | |
| 582133 | | | 2.00E-11 | | | | | | | | |
| 582134 | | | 2.00E-11 | | | | | | | | |
| 582135 | | | 2.00E-11 | | | | | | | | |
| 582136 | | | 2.00E-11 | | | | | | | | |
| 582137 | | | 2.00E-11 | | | | | | | | |
| 582138 | | | 1.00E-12 | | | | | | | | |
| 582139 | | | 1.00E-12 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 580145 | | | | 1.00E-04 | | | | |
| 580146 | | | | 1.00E-04 | 3.50E-08 | | | |
| 580147 | | | | 1.00E-04 | 3.50E-08 | | | |
| 580148 | | | | 2.00E-05 | | | | |
| 581124 | | | | | | | | |
| 581125 | | | | | | | | |
| 581126 | | | | | | | | |
| 581127 | | | | 2.00E-05 | | | | |
| 581128 | | | | 2.00E-05 | | | | |
| 581129 | | | | 2.00E-05 | | | | |
| 581130 | | | | 2.00E-05 | | | | |
| 581131 | | | | 2.00E-05 | | | | |
| 581132 | | | | 2.00E-05 | | | | |
| 581133 | | | | | | | | |
| 581134 | | | | | | | | |
| 581135 | | | | | | | | |
| 581136 | | | | | | | | |
| 581137 | | | | | | | | |
| 581138 | | | | | | | | |
| 581139 | | | | | | | | |
| 581141 | | | | | | | | |
| 581142 | | | | 4.50E-05 | | | | |
| 581143 | | | | 4.50E-05 | | | | |
| 581144 | | | | 1.00E-04 | | | | |
| 581145 | | | | 1.00E-04 | | | | |
| 581146 | | | | 1.00E-04 | 9.00E-09 | 1.50E-07 | | |
| 581147 | | | | 4.50E-05 | 1.40E-08 | 1.50E-07 | | |
| 581148 | | | | 2.00E-05 | | | | |
| 582123 | | | | | | | | |
| 582124 | | | | | | | | |
| 582125 | | | | | | | | |
| 582126 | | | | | | | | |
| 582127 | | | | 2.00E-05 | | | | |
| 582128 | | | | 2.00E-05 | | | | |
| 582129 | | | | 2.00E-05 | | | | |
| 582130 | | | | 2.00E-05 | | | | |
| 582131 | | | | 2.00E-05 | | | | |
| 582132 | | | | 2.00E-05 | | | | |
| 582133 | | | | | | | | |
| 582134 | | | | | | | | |
| 582135 | | | | | | | | |
| 582136 | | | | | | | | |
| 582137 | | | | | | | | |
| 582138 | | | | | | | | |
| 582139 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 582140 | | | 1.00E-12 | | | | | | | | |
| 582141 | | | 1.00E-12 | | | | | | | | |
| 582142 | | | 1.00E-12 | | | | | | | | |
| 582143 | | | 1.00E-12 | | | | | | | | |
| 582144 | | | 1.00E-12 | | | | | | | | |
| 582145 | | | 1.00E-12 | | | | | | | | |
| 582146 | | | 1.00E-12 | | | | | | | | |
| 582147 | | | 1.00E-12 | | | | | | | | |
| 583122 | | | 1.00E-12 | | | | | | | | |
| 583123 | | | 1.00E-12 | | | | | | | | |
| 583124 | | | 2.00E-11 | | | | | | | | |
| 583125 | | | 2.00E-11 | | | | | | | | |
| 583126 | | | 2.00E-11 | | | | | | | | |
| 583127 | | | 2.00E-11 | | | | | | | | |
| 583128 | | | 2.00E-11 | | | | | | | | |
| 583129 | | | 2.00E-11 | | | | | | | | |
| 583130 | | | 2.00E-11 | | | | | | | | |
| 583131 | | | 2.00E-11 | | | | | | | | |
| 583132 | | | 2.00E-11 | | | | | | | | |
| 583133 | | | 2.00E-11 | | | | | | | | |
| 583134 | | | 2.00E-11 | | | | | | | | |
| 583135 | | | 2.00E-11 | | | | | | | | |
| 583136 | | | 2.00E-11 | | | | | | | | |
| 583137 | | | 2.00E-11 | | | | | | | | |
| 583138 | | | 1.00E-12 | | | | | | | | |
| 583139 | | | 1.00E-12 | | | | | | | | |
| 583140 | | | 1.00E-12 | | | | | | | | |
| 583141 | | | 1.00E-12 | | | | | | | | |
| 583142 | | | 1.00E-12 | | | | | | | | |
| 583143 | | | 1.00E-12 | | | | | | | | |
| 583144 | | | 1.00E-12 | | | | | | | | |
| 584121 | | | 1.00E-12 | | | | | | | | |
| 584122 | | | 1.00E-12 | | | | | | | | |
| 584123 | | | 2.00E-11 | | | | | | | | |
| 584124 | | | 2.00E-11 | | | | | | | | |
| 584125 | | | 2.00E-11 | | | | | | | | |
| 584126 | | | 2.00E-11 | | | | | | | | |
| 584127 | | | 2.00E-11 | | | | | | | | |
| 584128 | | | 2.00E-11 | | | | | | | | |
| 584129 | | | 2.00E-11 | | | | | | | | |
| 584130 | | | 2.00E-11 | | | | | | | | |
| 584131 | | | 2.00E-11 | | | | | | | | |
| 584132 | | | 2.00E-11 | | | | | | | | |
| 584133 | | | 2.00E-11 | | | | | | | | |
| 584134 | | | 2.00E-11 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 582140 | | | | | | | | |
| 582141 | | | | | | | | |
| 582142 | | | | 4.50E-05 | | | | |
| 582143 | | | | 1.00E-04 | | | | |
| 582144 | | | | 1.00E-04 | | | | |
| 582145 | | | | 1.00E-04 | | | | |
| 582146 | | | | 4.50E-05 | | 1.50E-07 | | |
| 582147 | | | | | | 1.50E-07 | | |
| 583122 | | | | | | | | |
| 583123 | | | | | | | | |
| 583124 | | | | | | | | |
| 583125 | | | | 2.00E-06 | | | | |
| 583126 | | | | 2.00E-05 | | | | |
| 583127 | | | | 2.00E-05 | | | | |
| 583128 | | | | 2.00E-05 | | | | |
| 583129 | | | | 2.00E-05 | | | | |
| 583130 | | | | 2.00E-05 | | | | |
| 583131 | | | | 2.00E-05 | | | | |
| 583132 | | | | | | | | |
| 583133 | | | | | | | | |
| 583134 | | | | | | | | |
| 583135 | | | | | | | | |
| 583136 | | | | | | | | |
| 583137 | | | | | | | | |
| 583138 | | | | | | | | |
| 583139 | | | | | | | | |
| 583140 | | | | | | | | |
| 583141 | | | | 2.00E-05 | | | | |
| 583142 | | | | 4.50E-05 | | | | |
| 583143 | | | | 1.00E-04 | | | | |
| 583144 | | | | 1.00E-04 | | | | |
| 584121 | | | | | | | | |
| 584122 | | | | | | | | |
| 584123 | | | | 2.00E-05 | | | | |
| 584124 | | | | 2.00E-05 | | | | |
| 584125 | | | | 2.00E-05 | | | | |
| 584126 | | | | 2.00E-05 | | | | |
| 584127 | | | | 2.00E-05 | | | | |
| 584128 | | | | 2.00E-05 | | | | |
| 584129 | | | | 2.00E-05 | | | | |
| 584130 | | | | 2.00E-05 | | | | |
| 584131 | | | | 2.00E-05 | | | | |
| 584132 | | | | | | | | |
| 584133 | | | | | | | | |
| 584134 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 584135 | | | 2.00E-11 | | | | | | | | |
| 584136 | | | 2.00E-11 | | | | | | | | |
| 584137 | | | 2.00E-11 | | | | | | | | |
| 584138 | | | 1.00E-12 | | | | | | | | |
| 584139 | | | 1.00E-12 | | | | | | | | |
| 584140 | | | 1.00E-12 | | | | | | | | |
| 584141 | | | 1.00E-12 | | | | | | | | |
| 584142 | | | 1.00E-12 | | | | | | | | |
| 585121 | | | 1.00E-12 | | | | | | | | |
| 585122 | | | 2.00E-11 | | | | | | | | |
| 585123 | | | 2.00E-11 | | | | | | | | |
| 585124 | | | 2.00E-11 | | | | | | | | |
| 585125 | | | 2.00E-11 | | | | | | | | |
| 585126 | | | 2.00E-11 | | | | | | | | |
| 585127 | | | 2.00E-11 | | | | | | | | |
| 585128 | | | 2.00E-11 | | | | | | | | |
| 585129 | | | 2.00E-11 | | | | | | | | |
| 585130 | | | 2.00E-11 | | | | | | | | |
| 585131 | | | 2.00E-11 | | | | | | | | |
| 585132 | | | 2.00E-11 | | | | | | | | |
| 585133 | | | 2.00E-11 | | | | | | | | |
| 585134 | | | 2.00E-10 | | | | | | | | |
| 585135 | | | 2.00E-10 | | | | | | | | |
| 585136 | | | 2.00E-10 | | | | | | | | |
| 585137 | | | 2.00E-11 | | | | | | | | |
| 585138 | | | 1.00E-12 | | | | | | | | |
| 585139 | | | 1.00E-12 | | | | | | | | |
| 585141 | | | 1.00E-12 | | | | | | | | |
| 586120 | | | 1.00E-12 | | | | | | | | |
| 586121 | | | 1.00E-12 | | | | | | | | |
| 586122 | | | 2.00E-11 | | | | | | | | |
| 586123 | | | 2.00E-11 | | | | | | | | |
| 586124 | | | 2.00E-11 | | | | | | | | |
| 586125 | | | 2.00E-11 | | | | | | | | |
| 586126 | | | 2.00E-11 | | | | | | | | |
| 586127 | | | 2.00E-11 | | | | | | | | |
| 586128 | | | 2.00E-11 | | | | | | | | |
| 586129 | | | 2.00E-11 | | | | | | | | |
| 586130 | | | 2.00E-11 | | | | | | | | |
| 586131 | | | 2.00E-11 | | | | | | | | |
| 586132 | | | 2.00E-11 | | | | | | | | |
| 586133 | | | 2.00E-10 | | | | | | | | |
| 586134 | | | 2.00E-10 | | | | | | | | |
| 586135 | | | 2.00E-10 | | | | | | | | |
| 586136 | | | 2.00E-10 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 584135 | | | | | | | | |
| 584136 | | | | | | | | |
| 584137 | | | | | | | | |
| 584138 | | | | | | | | |
| 584139 | | | | | | | | |
| 584140 | | | | | | | | |
| 584141 | | | | 4.50E-05 | | | | |
| 584142 | | | | 4.50E-05 | | | | |
| 585121 | | | | | | | | |
| 585122 | | | | | | | | |
| 585123 | | | | | | | | |
| 585124 | | | | 2.00E-05 | | | | |
| 585125 | | | | 2.00E-05 | | | | |
| 585126 | | | | 2.00E-05 | | | | |
| 585127 | | | | 2.00E-05 | | | | |
| 585128 | | | | 2.00E-05 | | | | |
| 585129 | | | | 2.00E-05 | | | | |
| 585130 | | | | 2.00E-05 | | | | |
| 585131 | | | | 2.00E-05 | | | | |
| 585132 | | | | | | | | |
| 585133 | | | | | | | | |
| 585134 | | | | | | | | |
| 585135 | | | | | | | | |
| 585136 | | | | | | | | |
| 585137 | | | | | | | | |
| 585138 | | | | | | | | |
| 585139 | | | | | | | | |
| 585141 | | | | | | | | |
| 586120 | | | | | | | | |
| 586121 | | | | | | | | |
| 586122 | | | | | | | | |
| 586123 | | | | 2.00E-05 | | | | |
| 586124 | | | | 2.00E-05 | | | | |
| 586125 | | | | 2.00E-05 | | | | |
| 586126 | | | | 2.00E-05 | | | | |
| 586127 | | | | 4.50E-05 | | | | |
| 586128 | | | | 4.50E-05 | | | | |
| 586129 | | | | 4.50E-05 | | | | |
| 586130 | | | | 4.50E-05 | | | | |
| 586131 | | | | 2.00E-05 | | | | |
| 586132 | | | | 2.00E-05 | | | | |
| 586133 | | | | 2.00E-05 | | | | |
| 586134 | | | | 2.00E-05 | | | | |
| 586135 | | | | | | | | |
| 586136 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 586137 | | | 2.00E-11 | | | | | | | | |
| 586138 | | | 1.00E-12 | | | | | | | | |
| 587120 | | | 1.00E-12 | | | | | | | | |
| 587121 | | | 1.00E-12 | | | | | | | | |
| 587122 | | | 2.00E-11 | | | | | | | | |
| 587123 | | | 2.00E-11 | | | | | | | | |
| 587124 | | | 2.00E-11 | | | | | | | | |
| 587125 | | | 2.00E-11 | | | | | | | | |
| 587126 | | | 1.00E-12 | | | | | | | | |
| 587127 | | | 1.00E-12 | | | | | | | | |
| 587128 | | | 1.00E-12 | | | | | | | | |
| 587129 | | | 2.00E-11 | | | | | | | | |
| 587130 | | | 2.00E-11 | | | | | | | | |
| 587131 | | | 2.00E-11 | | | | | | | | |
| 587132 | | | 2.00E-11 | | | | | | | | |
| 587133 | | | 2.00E-10 | | | | | | | | |
| 587134 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 587135 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 587136 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 587137 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 587138 | | | 1.00E-12 | | | | | | | | |
| 588120 | | | 1.00E-12 | | | | | | | | |
| 588121 | | | 1.00E-12 | | | | | | | | |
| 588122 | | | 2.00E-11 | | | | | | | | |
| 588123 | | | 2.00E-11 | | | | | | | | |
| 588124 | | | 2.00E-11 | | | | | | | | |
| 588125 | | | 2.00E-11 | | | | | | | | |
| 588126 | | | 1.00E-12 | | | | | | | | |
| 588127 | | | 1.00E-12 | | | | | | | | |
| 588128 | | | 1.00E-12 | | | | | | | | |
| 588129 | | | 2.00E-11 | | | | | | | | |
| 588130 | | | 2.00E-11 | | | | | | | | |
| 588131 | | | 2.00E-11 | | | | | | | | |
| 588132 | | | 2.00E-11 | | | | | | | | |
| 588133 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 588134 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 588135 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 588136 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 588137 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 588138 | | | | | | | | | | | |
| 589120 | | | 1.00E-12 | | | | | | | | |
| 589121 | | | 2.00E-11 | | | | | | | | |
| 589122 | | | 2.00E-11 | | | | | | | | |
| 589123 | | | 2.00E-11 | | | | | | | | |
| 589124 | | | 2.00E-11 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 586137 | | | | | | | | |
| 586138 | | | | | | | | |
| 587120 | | | | | | | | |
| 587121 | | | | | | | | |
| 587122 | | | | | | | | |
| 587123 | | | | | | | | |
| 587124 | | | | 2.00E-05 | | | | |
| 587125 | | | | | | | | |
| 587126 | | | | 2.00E-05 | | | | |
| 587127 | | | | 4.50E-05 | | | | |
| 587128 | | | | 4.50E-05 | | | | |
| 587129 | | | | 4.50E-05 | | | | |
| 587130 | | | | 4.50E-05 | | | | |
| 587131 | | | | 2.00E-05 | | | | |
| 587132 | | | | | | | | |
| 587133 | | | | | | | | |
| 587134 | | | | 2.00E-05 | | | | |
| 587135 | | | | | | | | |
| 587136 | | | | | | | | |
| 587137 | | | | | | | | |
| 587138 | | | | | | | | |
| 588120 | | | | | | | | |
| 588121 | | | | | | | | |
| 588122 | | | | | | | | |
| 588123 | | | | 2.00E-05 | | | | |
| 588124 | | | | 2.00E-05 | | | | |
| 588125 | | | | 2.00E-05 | | | | |
| 588126 | | | | 2.00E-05 | | | | |
| 588127 | | | | 4.50E-05 | | | | |
| 588128 | | | | 4.50E-05 | | | | |
| 588129 | | | | 4.50E-05 | | | | |
| 588130 | | | | | | | | |
| 588131 | | | | 2.00E-05 | | | | |
| 588132 | | | | 2.00E-05 | | | | |
| 588133 | | | | 2.00E-05 | | | | |
| 588134 | | | | 2.00E-05 | | | | |
| 588135 | | | | | | | | |
| 588136 | | | | | | | | |
| 588137 | | | | 2.00E-05 | | | | |
| 588138 | | | | 2.00E-05 | | | | |
| 589120 | | | | | | | | |
| 589121 | | | | | | | | |
| 589122 | | | | 2.00E-05 | | | | |
| 589123 | | | | 2.00E-05 | | | | |
| 589124 | | | | 2.00E-05 | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 589125 | | | 2.00E-11 | | | | | | | | |
| 589126 | | | 1.00E-12 | | | | | | | | |
| 589127 | | | 1.00E-12 | | | | | | | | |
| 589128 | | | 1.00E-12 | | | | | | | | |
| 589129 | | | 1.00E-12 | | | | | | | | |
| 589130 | | | 2.00E-11 | | | | | | | | |
| 589131 | | | 2.00E-11 | | | | | | | | |
| 589132 | | | 2.00E-11 | | | | | | | | |
| 589133 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 589134 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 589135 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 589136 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 589137 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 589138 | | | | | | | | | | | |
| 590119 | | | 1.00E-12 | | | | | | | | |
| 590120 | | | 1.00E-12 | | | | | | | | |
| 590121 | | | 2.00E-11 | | | | | | | | |
| 590122 | | | 2.00E-11 | | | | | | | | |
| 590123 | | | 2.00E-11 | | | | | | | | |
| 590124 | | | 2.00E-11 | | | | | | | | |
| 590125 | | | 2.00E-11 | | | | | | | | |
| 590126 | | | 1.00E-12 | | | | | | | | |
| 590127 | | | 1.00E-12 | | | | | | | | |
| 590128 | | | 1.00E-12 | | | | | | | | |
| 590129 | | | 1.00E-12 | | | | | | | | |
| 590130 | | | 1.00E-12 | | | | | | | | |
| 590131 | | | 2.00E-11 | | | | | | | | |
| 590132 | | | 2.00E-11 | | | | | | | | |
| 590133 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 590134 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 590135 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 590136 | | | 2.00E-10 | | | | 5.00E-14 | | | | |
| 591119 | | | 1.00E-12 | | | | | | | | |
| 591120 | | | 1.00E-12 | | | | | | | | |
| 591121 | | | 2.00E-11 | | | | | | | | |
| 591122 | | | 2.00E-11 | | | | | | | | |
| 591123 | | | 2.00E-11 | | | | | | | | |
| 591124 | | | 2.00E-11 | | | | | | | | |
| 591125 | | | 2.00E-11 | | | | | | | | |
| 591126 | | | 1.00E-12 | | | | | | | | |
| 591127 | | | 1.00E-12 | | | | | | | | |
| 591128 | | | 1.00E-12 | | | | | | | | |
| 591129 | | | 1.00E-12 | | | | | | | | |
| 591130 | | | 1.00E-12 | | | | | | | | |
| 591131 | | | 2.00E-11 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 589125 | | | | 2.00E-05 | | | | |
| 589126 | | | | 2.00E-05 | | | | |
| 589127 | | | | 2.00E-05 | | | | |
| 589128 | | | | 2.00E-05 | | | | |
| 589129 | | | | | | | | |
| 589130 | | | | 4.50E-05 | | | | |
| 589131 | | | | 4.50E-05 | | | | |
| 589132 | | | | 2.00E-05 | | | | |
| 589133 | | | | 2.00E-05 | | | | |
| 589134 | | | | 2.00E-05 | | | | |
| 589135 | | | | 2.00E-05 | | | | |
| 589136 | | | | 2.00E-05 | | | | |
| 589137 | | | | 2.00E-05 | | | | |
| 589138 | | | | 2.00E-05 | | | | |
| 590119 | | | | | | | | |
| 590120 | | | | | | | | |
| 590121 | | | | | | | | |
| 590122 | | | | | | | | |
| 590123 | | | | | | | | |
| 590124 | | | | | | | | |
| 590125 | | | | | | | | |
| 590126 | | | | | | | | |
| 590127 | | | | | | | | |
| 590128 | | | | | | | | |
| 590129 | | | | | | | | |
| 590130 | | | | | | | | |
| 590131 | | | | | | | | |
| 590132 | | | | | | | | |
| 590133 | | | | | | | | |
| 590134 | | | | | | | | |
| 590135 | | | | | | | | |
| 590136 | | | | | | | | |
| 591119 | | | | | | | | |
| 591120 | | | | | | | | |
| 591121 | | | | | | | | |
| 591122 | | | | | | | | |
| 591123 | | | | | | | | |
| 591124 | | | | | | | | |
| 591125 | | | | | | | | |
| 591126 | | | | | | | | |
| 591127 | | | | | | | | |
| 591128 | | | | | | | | |
| 591129 | | | | | | | | |
| 591130 | | | | | | | | |
| 591131 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 591132 | | | 2.00E-11 | | | | | | | | |
| 591133 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 591134 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 591135 | | | 2.00E-11 | | | | | | | | |
| 592118 | | | 1.00E-12 | | | | | | | | |
| 592119 | | | 1.00E-12 | | | | | | | | |
| 592120 | | | 1.00E-12 | | | | | | | | |
| 592121 | | | 2.00E-11 | | | | | | | | |
| 592122 | | | 2.00E-11 | | | | | | | | |
| 592123 | | | 2.00E-11 | | | | | | | | |
| 592124 | | | 2.00E-11 | | | | | | | | |
| 592125 | | | 1.00E-12 | | | | | | | | |
| 592126 | | | 1.00E-12 | | | | | | | | |
| 592127 | | | 1.00E-12 | | | | | | | | |
| 592128 | | | 1.00E-12 | | | | | | | | |
| 592129 | | | 1.00E-12 | | | | | | | | |
| 592130 | | | 1.00E-12 | | | | | | | | |
| 592131 | | | 2.00E-11 | | | | | | | | |
| 592132 | | | 2.00E-11 | | | | | | | | |
| 592133 | | | 2.00E-11 | | | | 5.00E-14 | | | | |
| 592134 | | | 2.00E-11 | | | | | | | | |
| 593116 | | | | | | | | 2.00E-14 | | | |
| 593117 | | | 1.00E-12 | | | | | | | | |
| 593118 | | | 1.00E-12 | | | | | | | | |
| 593119 | | | 1.00E-12 | | | | | | | | |
| 593120 | | | 1.00E-12 | | | | | | | | |
| 593121 | | | 1.00E-12 | | | | | | | | |
| 593122 | | | 1.00E-12 | | | | | | | | |
| 593123 | | | 1.00E-12 | | | | | | | | |
| 593124 | | | 1.00E-12 | | | | | | | | |
| 593125 | | | 1.00E-12 | | | | | | | | |
| 593126 | | | 1.00E-12 | | | | | | | | |
| 593127 | | | 1.00E-12 | | | | | | | | |
| 593128 | | | 1.00E-12 | | | | | | | | |
| 593129 | | | 1.00E-12 | | | | | | | | |
| 593130 | | | 1.00E-12 | | | | | | | | |
| 593131 | | | 2.00E-11 | | | | | | | | |
| 593132 | | | 2.00E-11 | | | | | | | | |
| 593133 | | | 2.00E-11 | | | | | | | | |
| 594115 | | | 1.00E-12 | | | | | 2.00E-14 | | | |
| 594116 | | | 2.00E-12 | | | | | 1.00E-13 | | | |
| 594117 | | | 2.00E-12 | | | | | 2.00E-14 | | | |
| 594118 | | | 2.00E-12 | | | | | | | | |
| 594119 | | | 2.00E-12 | | | | | | | | |
| 594120 | | | 2.00E-12 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 591132 | | | | | | | | |
| 591133 | | | | | | | | |
| 591134 | | | | | | | | |
| 591135 | | | | | | | | |
| 592118 | | | | | | | | |
| 592119 | | | | | | | | |
| 592120 | | | | | | | | |
| 592121 | | | | | | | | |
| 592122 | | | | | | | | |
| 592123 | | | | | | | | |
| 592124 | | | | | | | | |
| 592125 | | | | | | | | |
| 592126 | | | | | | | | |
| 592127 | | | | | | | | |
| 592128 | | | | | | | | |
| 592129 | | | | | | | | |
| 592130 | | | | | | | | |
| 592131 | | | | | | | | |
| 592132 | | | | | | | | |
| 592133 | | | | | | | | |
| 592134 | | | | | | | | |
| 593116 | | | | | | | | |
| 593117 | | | | | | | | |
| 593118 | | | | | | | | |
| 593119 | | | | | | | | |
| 593120 | | | | | | | | |
| 593121 | | | | | | | | |
| 593122 | | | | | | | | |
| 593123 | | | | | | | | |
| 593124 | | | | | | | | |
| 593125 | | | | | | | | |
| 593126 | | | | | | | | |
| 593127 | | | | | | | | |
| 593128 | | | | | | | | |
| 593129 | | | | | | | | |
| 593130 | | | | | | | | |
| 593131 | | | | | | | | |
| 593132 | | | | | | | | |
| 593133 | | | | | | | | |
| 594115 | | | | | | | | |
| 594116 | | | | | | | | |
| 594117 | | | | | | | | |
| 594118 | | | | | | | | |
| 594119 | | | | | | | | |
| 594120 | | | | | | | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | CO60 Ci/mL | Cs137 Ci/mL | H3 Ci/mL | I129 Ci/mL | PU238 Ci/mL | SR90 Ci/mL | Tc99 Ci/mL | U238 Ci/mL | As g/ml | CCl4 g/ml | Chlor g/ml |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 594121 | | | 1.00E-12 | | | | | | | | |
| 594122 | | | 1.00E-12 | | | | | | | | |
| 594123 | | | 1.00E-12 | | | | | | | | |
| 594124 | | | 1.00E-12 | | | | | | | | |
| 594125 | | | 1.00E-12 | | | | | | | | |
| 594126 | | | 1.00E-12 | | | | | | | | |
| 594127 | | | 1.00E-12 | | | | | | | | |
| 594128 | | | 1.00E-12 | | | | | | | | |
| 594129 | | | 1.00E-12 | | | | | | | | |
| 594130 | | | 1.00E-12 | | | | | | | | |
| 594131 | | | 2.00E-11 | | | | | | | | |
| 594132 | | | 2.00E-11 | | | | | | | | |
| 565133 | | | | | | | | | | | |
| 565133 | | | | | | | | | 6.00E-09 | | |

*Table B2-1. Groundwater Summary Table. (28 sheets)*

| Cell Id | Cyanide g/ml | CrVI g/ml | F g/ml | NO3 g/ml | TriChlor g/ml | Dichloro ethylene | Perchloro ethylene | Dichloro ethane |
|---|---|---|---|---|---|---|---|---|
| 594121 | | | | | | | | |
| 594122 | | | | | | | | |
| 594123 | | | | | | | | |
| 594124 | | | | | | | | |
| 594125 | | | | | | | | |
| 594126 | | | | | | | | |
| 594127 | | | | | | | | |
| 594128 | | | | | | | | |
| 594129 | | | | | | | | |
| 594130 | | | | | | | | |
| 594131 | | | | | | | | |
| 594132 | | | | | | | | |
| 565133 | | 1.00E-07 | | | | | | |
| 565133 | | | | | | | | |

*Table B2-2. Assumptions Used in Reconstructing WIDS Fields.*

| Category | Isotope Assigned (percentage) | Justification |
|---|---|---|
| Pu grams | Average isotopic distribution of Hanford plutonium (Ci/g)<br><br>Pu-238 $1.54 \times 10^{-3}$<br>Pu-239 $5.84 \times 10^{-2}$<br>Pu-240 $1.33 \times 10^{-2}$<br>Pu-241 $1.89 \times 10^{-1}$<br>Pu-242 $1.14 \times 10^{-6}$<br>Am-241 $6.59 \times 10^{-3}$<br>Total $2.69 \times 10^{-1}$ | Typical isotopic ratio of weapons grade plutonium<br><br>Ref: 232S/232Z Environmental Assessment |
| U grams | The entire inventory is assumed to be natural Uranium consisting of U-238 (99.3%) and U-235 (.7%) | Prevalent in WIDS |
| U gross | (see U grams) | Weight is applied, activity of all Uranium isotopes are equal |
| Gross Alpha | Pu-239 (100%) | |
| Gross Beta | Sr-90 (50%)<br>Cs-137 (50%) | Two of the most prevalent beta emitters listed in WIDS, higher energy than other beta emitters listed (conservative assumption for external dosimetry) |
| Gross Gamma | Not Assigned | According to WHC, gross gamma was used exclusively for calibration purposes, and was therefore eliminated from the list. |

*Table B2-3. Surface Water Summary Table. (6 sheets)*

| Site Code | Media | Alias | Length | Width | Depth of water | Depth to GW | Area | Contaminated Volume | Decay Date | Cell Id | QA | Be7 | Ce134 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ft | ft | | m | m2 | m3 | | | | Max | Max |
| 100-N-Springs | Water | N-Springs | | | | | | | 1/1/92 | 570149 | JKH | | |
| 216-B-3 | Water | B Pond | | | 1.6 ft | | 1.49E+05 | 2.33E+05 | 1/1/91 | 576136 | JKH | 1.55E+01 | 8.35E+00 |
| 216-N-8 | Water | West Lake | | | 1.3 ft | 67 | 7.78E+04 | 3.11E+04 | 8/1/89 | 573141 | JKH | | |
| 400-FFTF | Water | Fast flux test facility | | | | | | | 1/1/91 | 587123 | JKH | | 8.98E-01 |
| 400-PPSS | Water | Percolation Ponds | 200 | 50 | 4 | | | | | 587123 | JKH | | |
| Columbia River | Water | Hanford Reach | | 7.93E+02 | | | | | 11/27/91 | see attachment | JKH | 6.82E+01 | |
| 100-N-Springs | Soil | N-Springs | | | | | | | | 570149 | JKH | | |
| 216-B-3 | Soil | B Pond | | | | | | | | 576136 | JKH | | |
| 216-N-8 | Soil | West Lake | | | | | | | 8/1/89 | 573141 | JKH | | |
| 400-FFTF | Soil | Fast flux test facility | | | | | | | | 587123 | JKH | | |
| 400-PPSS | Soil | Percolation Ponds | | | | | | | | 587123 | JKH | | |
| Columbia River | Soil | Hanford Reach | | | | | | | | see attachment | JKH | | |
| | | | | | | | | | | | | | |
| UNITS: | Water | pci/l | | | | | | | | | | | |
| | Soil | pci/g | | | | | | | | | | | |

Table B2-3. Surface water summary table (page 2 of 6).

| Site Code | Co60 Max | CS134 Max | Cs137 Max | Eu154 Max | Eu155 Max | H3 Max | K40 Max | Pu238 Max | Pu239 Max | Ru106 Max | Sb125 Max | Sr90 Max | Tc99 Max | U234 Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100-N-Springs | 5.20E+00 | | | | | 7.70E+02 | | | | | | 1.50E+02 | | |
| 216-B-3 | 4.74E-01 | 7.33E-01 | | 1.29E+00 | 2.34E+00 | 4.69E+02 | 7.14E+01 | | | 8.34E+00 | 1.99E+00 | | 3.55E+05 | |
| 216-N-8 | | | 9.64E-01 | | | 5.12E+02 | | | | 7.97E+01 | | 1.93 | 1.07E+02 | |
| 400-FFTF | 6.02E-01 | 7.29E-01 | 1.97E+00 | 3.47E+00 | 1.27E+00 | 7.33E+03 | 6.85E+01 | | | 2.24E+00 | | | | |
| 400-PPSS | | | | | | | | | | | | | | |
| Columbia River | 1.25 | | | | | 1.61E+02 | 5.88E+01 | | | 8.43E+00 | 7.29E-01 | | 5.24E+01 | 3.10E-01 |
| 100-N-Springs | | | | | | | | | | | | | | |
| 216-B-3 | | | 3.00E+02 | | | | | | 5.40E+01 | | | 1.90E-01 | | |
| 216-N-8 | 9.00E-03 | | 1.22 | | | | 2.19E+01 | | | 1.66E+02 | | 1.57E+00 | | |
| 400-FFTF[3] | | | | | | | | | | | | | | |
| 400-PPSS | | | | | | | | | | | | | | |
| Columbia River | | | | | | | | | | | | | | |
| UNITS: | | | | | | | | | | | | | | |

*Table B2-3. Surface Water Summary Table. (6 sheets)*

Table B2-3. Surface water summary table (page 3 of 6).

| Site Code | U235 | U238 | Zn65 | Zr95 | Be7 | Ce134 | Co60 | Cs134 | Cs137 | Eu154 | Eu155 | H3 | K40 | Pu238 | Pu239 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max | Max | Max | Max | Mean | Mean | Mean | Mean | Mean | Mean | Mean | Mean | Mean | Mean | Mean |
| 100-N-Springs | | | | | 2.75E+01 | | 1.20E+00 | | | 1.33E+01 | | 3.90E+02 | 1.06E+02 | | |
| 216-B-3 | | | 1.45E+00 | 1.86E+01 | | | | | | | 6.48E-01 | 1.42E+02 | 3.10E+01 | | |
| 216-N-8 | | | | | | | 2.64 | | | | | 3.95E+02 | | | |
| 400-FFTF | | | 2.18E+00 | 1.33E+01 | | | 2.48E-01 | | 8.01E-01 | 8.33E-01 | 8.19E-01 | 6.53E+03 | 3.27E+01 | | |
| 400-PPSS | | | | | | | | | | | | | | | |
| Columbia River | | | | | 1.45E+01 | | | | | | | 1.32E+02 | 3.25E+01 | | |
| 100-N-Springs | | | | | | | | | | | | | | | |
| 216-B-3 | 2.05E+01 | | | | | | | | | | | | | | |
| 216-N-8 | | 5.13 | | | | | 2.00E-03 | | 4.90E-01 | | | | 1.87E+01 | | |
| 400-FFTF | | | | | | | | | | | | | | | |
| 400-PPSS | | | | | | | | | | | | | | | |
| Columbia River | | | | | | | | | 1.12E-01 | | | | | 1.59E-04 | 9.53E-04 |
| UNITS: | | | | | | | | | | | | | | | |

Table B2-3. Surface water summary table (page 4 of 6).

| Site Code | Ru106 Mean | Sb125 Mean | Sr90 Mean | Tc99 Mean | U234 Mean | U235 Mean | U238 Mean | Zn65 Mean | Zr95 Mean | Be7 Min | Ce134 Min | Co60 Min | CS134 Min | Cs137 Min | Eu154 Min | Eu155 Min |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100-N-Springs | | | 4.90E+01 | 2.44E+00 | | | | | | | | | | | | |
| 216-B-3 | 3.20E+00 | | | | | | | | 2.08E+00 | | | | | | | |
| 216-N-8 | 1.86 | | 1.67 | 5.97E+01 | | | | | | | | 1.21 | | 7.03 | | |
| 400-FFTF | | | | | | | | 7.44E-01 | 2.92E+00 | | | | | 2.06E-01 | | |
| 400-PPSS | | | | | | | | | | | | | | | | |
| Columbia River | 3.91E-01 | | | 1.42E+01 | 2.76E-01 | | | | | | | | | | | |
| 100-N-Springs | | | | | | | | | | | | | | | | |
| 216-B-3 | | | | | | | | | | | | | | | | |
| 216-N-8 | 2.22E-05 | | 4.94E-01 | | | | 1.82 | | | | | | | 2.45 | | |
| 400-FFTF | | | | | | | | | | | | | | | | |
| 400-PPSS | | | | | | | | | | | | | | | | |
| Columbia River | | | 6.54E-03 | | | 1.91E-01 | 2.30E+00 | | | | | | | | | |
| UNITS: | | | | | | | | | | | | | | | | |

*Table B2-3. Surface Water Summary Table. (6 sheets)*

*Table B2-3. Surface Water Summary Table. (6 sheets)*

| Site Code | H3 | K40 | Pu238 | Pu239 | Ru106 | Sb125 | Sr90 | Tc99 | U234 | U235 | U238 | Zn65 | Zr95 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Min | Min | Min | Min | Min | Min | Min | Min | Min | Min | Min | Min | Min |
| 100-N-Springs | | | | | | | | | | | | | |
| 216-B-3 | | 1.11E+00 | | | | | | | | | | | |
| 216-N-8 | 2.55E+02 | | | | | | | 2.09E+01 | | | | | |
| 400-FFTF | 5.39E+03 | 5.08E+00 | | | | | | | | | | | |
| 400-PPSS | | | | | | | | | | | | | |
| Columbia River | 9.79E+01 | 4.95E+00 | | | | | | 6.22E-01 | 2.24E-01 | | | | |
| 100-N-Springs | | | | | | | | | | | | | |
| 216-B-3 | | | | | | | | | | | | | |
| 216-N-8 | | 1.61E+01 | | | | | 5.00E-02 | | | | 2.01E-01 | | |
| 400-FFTF | | | | | | | | | | | | | |
| 400-PPSS | | | | | | | | | | | | | |
| Columbia River | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| UNITS: | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

*Table B2-3. Surface Water Summary Table. (6 sheets)*

| CELL_ID | SIZE |
|---|---|
| 551143 | 1 |
| 552143 | 1 |
| 552144 | 1 |
| 553144 | 1 |
| 554144 | 1 |
| 555144 | 1 |
| 556144 | 1 |
| 557144 | 1 |
| 557145 | 1 |
| 558145 | 1 |
| 559145 | 1 |
| 559146 | 1 |
| 560146 | 1 |
| 561146 | 1 |
| 562146 | 1 |
| 562145 | 1 |
| 563145 | 1 |
| 564145 | 1 |
| 565145 | 1 |
| 566145 | 1 |
| 567145 | 1 |
| 567146 | 1 |
| 568147 | 1 |
| 569147 | 1 |
| 569148 | 1 |
| 570148 | 1 |
| 570149 | 1 |
| 571149 | 1 |
| 571150 | 1 |
| 572150 | 1 |

| CELL_ID | SIZE |
|---|---|
| 572151 | 1 |
| 572152 | 1 |
| 573152 | 1 |
| 573153 | 1 |
| 574153 | 1 |
| 574154 | 1 |
| 575154 | 1 |
| 576154 | 1 |
| 576153 | 1 |
| 577153 | 1 |
| 578153 | 1 |
| 578152 | 1 |
| 578151 | 1 |
| 578150 | 1 |
| 579150 | 1 |
| 579149 | 1 |
| 579148 | 1 |
| 580148 | 1 |
| 581148 | 1 |
| 581147 | 1 |
| 582147 | 1 |
| 581146 | 1 |
| 582146 | 1 |
| 582145 | 1 |
| 582144 | 1 |
| 583144 | 1 |
| 583143 | 1 |
| 583142 | 1 |
| 584142 | 1 |
| 584141 | 1 |

| CELL_ID | SIZE |
|---|---|
| 585141 | 1 |
| 584140 | 1 |
| 585140 | 1 |
| 585139 | 1 |
| 586139 | 1 |
| 586138 | 1 |
| 587138 | 1 |
| 588138 | 1 |
| 588137 | 1 |
| 589137 | 1 |
| 589136 | 1 |
| 590136 | 1 |
| 590135 | 1 |
| 591135 | 1 |
| 591134 | 1 |
| 592134 | 1 |
| 592133 | 1 |
| 593133 | 1 |
| 593132 | 1 |
| 594132 | 1 |
| 594131 | 1 |
| 594130 | 1 |
| 594129 | 1 |
| 594128 | 1 |
| 594127 | 1 |
| 594126 | 1 |
| 594125 | 1 |
| 594124 | 1 |
| 594123 | 1 |
| 594122 | 1 |

| CELL_ID | SIZE |
|---|---|
| 594121 | 1 |
| 594120 | 1 |
| 594119 | 1 |
| 594118 | 1 |
| 594117 | 1 |
| 594116 | 1 |
| 594115 | 1 |
| 594114 | 1 |
| 594113 | 1 |
| 595113 | 1 |
| 595112 | 1 |
| 595111 | 1 |
| 595110 | 1 |
| 595109 | 1 |
| 595108 | 1 |
| 594108 | 1 |
| 590100 | 10 |
| 600100 | 10 |
| 600090 | 10 |
| 610090 | 10 |
| 610080 | 10 |
| 620080 | 10 |
| 620070 | 10 |
| 610060 | 10 |
| 600060 | 10 |
| 590060 | 10 |
| 580060 | 10 |
| 570060 | 10 |
| 560060 | 10 |

*Table B2-4. MEPAS Input Values for Analytical Groundwater Solute Transport Simulation. (3 sheets)*

| Plume | Source Cell ID | Source Dimensions | | Release Starting Year | Release Duration (years) | Key Monitoring Well | Constituent Concentration at Key Monitoring Well (ug/L or pCi/L) | Primary Reference |
|---|---|---|---|---|---|---|---|---|
| | | Length (m) | Width (m) | | | | | |
| REACTORS ON THE RIVER | | | | | | | | |
| 100B/C Strontium-90 | 565600 | 1390 | 730 | 1944 | 46 | 199-B3-1 | 44 | DOE/RL 1993d |
| 100D Chromium | 573151 | 244 | 244 | 1947 | 20 | 199-D8-54 | 410 | DOE/RL, 1994a |
| 100D Nitrate A | 573151 | 18 | 12 | 1955 | 1 | 199-D5-12 | 53 | DOE/RL, 1994a |
| 100D Nitrate B | 573151 | 30 | 91 | 1951 | 16 | 199-D8-53 | 66 | DOE/RL, 1994a |
| 100D Strontium-90 | 573151 | 46 | 76 | 1947 | 20 | 199-D5-12 | 45 | Evans et al. 1990 |
| 100D Tritium | 573151 | 18 | 12 | 1955 | 1 | 199-D5-12 | 41000 | DOE/RL, 1994a |
| 100F Nitrate | 580146 | 76 | 152 | 1945 | 20 | 199-F5-6 | 4330 | DOE/RL, 1994b |
| 100F Strontium-90 | 580146 | 91 | 15 | 1950 | 15 | 199-F5-3 | 250 | DOE/RL, 1994b |
| 100F Tritium | 580146 | 76 | 152 | 1945 | 20 | 199-F5-48 | 17000 | DOE/RL, 1994b |
| 100H Chromium | 577152 | 76 | 46 | 1973 | 12 | 199-H4-4 | 75 | DOE/RL, 1994a |
| 100H Nitrate | 577152 | 76 | 46 | 1973 | 12 | 199-H4-4 | 36000 | DOE/RL, 1994a |
| 100-H Strontium-90 | 577152 | 76 | 46 | 1973 | 12 | 199-H4-11 | 24 | DOE/RL, 1994a |
| 100H Tritium | 577152 | 76 | 46 | 1973 | 12 | 199-H4-4 | 1800 | DOE/RL, 1994a |
| 100H Uranium | 577152 | 76 | 46 | 1973 | 12 | 199-H4-4 | 64 | DOE/RL, 1994a |
| 100K Chromium | 569145 | 15 | 1219 | 1955 | 16 | 199-K-20 | 160 | WHC 1992 |
| 100K Nitrate | 569145 | 12 | 12 | 1955 | 16 | 199-K-19 | 51000 | WHC 1992 |
| 100K Tritium | 569145 | 12 | 12 | 1955 | 16 | 199-K-27 | 172000 | WHC 1992 |
| 100N Strontium-90 | 571148 | 488 | 15 | 1963 | 22 | 199-N-75 | 1580 | DOE/RL, 1994a |
| 100N Tritium | 571148 | 76 | 73 | 1986 | 4 | 199-N-14 | 80900 | DOE/RL, 1994a |
| CENTRAL PLATEAU | | | | | | | | |
| 200E Arsenic | 575135 | 213 | 30 | 1977 | 13 | 699-34-42 | 6 | DOE/RL, 1993e |
| 200E Cesium-137 | 573136 | 0.2 | 0.2 | 1945 | 3 | 299-E28-23 | 1328 | DOE/RL, 1993e |
| 200E Chromium B | 573137 | 533 | 671 | 1954 | 2 | 699-49-57B | 26 | DOE/RL, 1993e |
| 200E Chromium C | 575135 | 701 | 5273 | 1954 | 36 | 299-E17-15 | 18 | DOE/RL, 1993e |
| 200E Cobalt-60 | 573137 | 91 | 61 | 1954 | 21 | 699-50-53A | 474 | DOE/RL, 1993e |
| 200E Cyanide A | 573137 | 91 | 61 | 1954 | 11 | 699-50-53A | 869 | DOE/RL, 1993e |
| 200E Cyanide B | 575135 | 701 | 5273 | 1954 | 36 | 299-E13-5 | 10 | DOE/RL, 1993e |
| 200E Iodine-129 | 574135 | 396 | 122 | 1956 | 34 | 299-E17-12 | 5 | DOE/RL, 1993e |
| 200E Nitrate B | 573137 | 91 | 61 | 1954 | 2 | 699-50-53A | 503 | DOE/RL, 1993e |
| 200E Nitrate C | 575135 | 2591 | 3353 | 1945 | 45 | Unidentified | 45000 | DOE/RL, 1993e |

*Table B2-4. MEPAS Input Values for Analytical Groundwater Solute Transport Simulation. (3 sheets)*

| Plume | Source Cell ID | Source Dimensions | | Release Starting Year | Release Duration (years) | Key Monitoring Well | Constituent Concentration at Key Monitoring Well (ug/L or pCi/L) | Primary Reference |
|---|---|---|---|---|---|---|---|---|
| | | Length (m) | Width (m) | | | | | |
| 200E Plutonium-239/240 | 573136 | 0.2 | 0.2 | 1945 | 3 | 299-E28-23 | 74 | DOE/RL, 1993e |
| 200E Strontium-90 B | 573136 | 0.2 | 0.2 | 1945 | 3 | 299-E28-25 | 5149 | DOE/RL, 1993e |
| 200E Technetium-99 | 573137 | 91 | 61 | 1954 | 2 | 699-50-53A | 21665 | DOE/RL, 1993e |
| 200E Tritium North | 573136 | 533 | 671 | 1945 | 5 | 699-61-62 | 13731 | DOE/RL, 1993e |
| 200E Tritium C | 575135 | 2591 | 3353 | 1945 | 45 | 699-24-34C | 306167 | DOE/RL, 1993e |
| 200W Carbon Tetrachloride | 566135 | 381 | 360 | 1949 | 24 | 299-15-11 | 4900 | DOE/RL, 1993f |
| 200W Chloroform | 566135 | 381 | 360 | 1949 | 24 | 299-W15-11 31 | 31 | DOE/RL, 1993f |
| 200W Chromium | 567133 | 30 | 15 | 1952 | 38 | 299-W22-20 | 323 | DOE/RL, 1993f |
| 200W Fluoride | 566136 | 840 | 1410 | 1944 | 38 | 699-45-69A | 492 | DOE/RL, 1993f |
| 200W Iodine-129 | 567133 | 30 | 15 | 1952 | 39 | 699-45-70 | 27 | DOE/RL, 1993f |
| 200W Nitrate | 567135 | 1158 | 2743 | 1944 | 47 | 699-40-62 | 42 | DOE/RL, 1993f |
| 200W Technetium-99 | 567135 | 61 | 30 | 1951 | 17 | 200-W19-24 | 26602 | DOE/RL, 1993f |
| 200W Trichloroethylene A | 566136 | 1143 | 1010 | 1949 | 24 | 299-W10-16 | 24 | DOE/RL, 1993f |
| 200W Trichloroethylene B | 567135 | 30 | 15 | 1952 | 22 | 299-W22-20 | 32 | DOE/RL, 1993f |
| 200W Tritium A | 567136 | 777 | 1006 | 1944 | 13 | 200-W11-9 | 1619 | DOE/RL, 1993f |
| 200W Tritium B | 566134 | 533 | 610 | 1944 | 24 | 699-35-66 | 1165000 | DOE/RL, 1993f |
| 200W Uranium A | 567136 | 53 | 27 | 1944 | 13 | 299-W11-14 | 207 | DOE/RL, 1993f |
| 200W Uranium B | 567135 | 454 | 585 | 1951 | 34 | 299-W19-20 | 492 | DOE/RL, 1993f |
| 300 1,2-Dichloroethylene | 594116 | 259 | 732 | 1943 | 32 | 399-1-16B | 79 | DOE/RL, 1993f |
| 300 Trichloroethylene | 594116 | 259 | 732 | 1943 | 32 | 399-1-16B | 12 | DOE/RL, 1993f |
| 300 Uranium | 594116 | 320 | 732 | 1943 | 44 | 399-1-16A | 9 | DOE/RL, 1993f |
| Gable Mtn Pond Nitrate | 575139 | 76 | 305 | 1986 | 4 | 699-54-49 | 4950 | DOE/RL, 1993e |
| Gable Mtn Pond Sr-90 | 575139 | 76 | 305 | 1957 | 31 | 699-53-48B | 311 | DOE/RL, 1993e |
| ALL OTHER AREAS | | | | | | | | |
| 1,1-Dichloroethylene | 579130 | 183 | 183 | 1985 | 5 | 6-24-34-B | 3 | DOE/RL, 1994a |
| Landfill Perchloroethylene | 579130 | 91 | 182 | 1985 | 3 | 699-24-34B | 0.07 | DOE/RL, 1994a |
| Landfill Trichloroethylene | 579130 | 91 | 182 | 1985 | 3 | 699-24-34B | 22 | DOE/RL, 1994a |
| Horn Rapids Trichloroethlene | 593110 | 762 | 701 | 1955 | 35 | MW-12 | 98 | WHC 1992 |
| Yakima Ridge Nitrate | 568128 | 30 | 30 | Unknown | Unknown | 699-17-70 | 45000 | WHC 1992 |

*Table B2-4. MEPAS Input Values for Analytical Groundwater Solute Transport Simulation. (3 sheets)*

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*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100BC PIPING | Solid | | | | | 4.67E+03 | | | | 1/1/76 | | | 565145 |
| 100DR PIPING | Solid | | | | | | | | | | | | |
| 100FR PIPING | Solid | | | | | | | | | | | | |
| 100HR PIPING | Solid | | | | | | | | | 1/1/76 | | | |
| 100KR PIPING | Solid | | | | | | | | | | | | |
| 100NR PIPING | Solid | | | | | | | | | | | | |
| 116-B-1 | Liquid | 200.0 | 30.0 | | | 5.86E+03 | 15.0 | 8.65E+05 | 6.00E+07 | 4/1/86 | 1946 | 1955 | 565145 |
| 116-B-10 | Liquid | | | 3.0 | | 4.21E+01 | 7.0 | 2.25E+04 | 5.00E+06 | | 1950 | 1968 | 565144 |
| 116-B-11 | Liquid | 450.0 | 230.0 | | | 2.88E+05 | 24.0 | 4.53E+06 | | 4/1/86 | 1944 | 1968 | 565145 |
| 116-B-12 | Liquid | 10.0 | 10.0 | | | 7.43E+01 | 10.0 | 7.14E+04 | 4.20E+05 | | 1961 | 1968 | 565144 |
| 116-B-13 | Liquid | 50.0 | 50.0 | | | 7.75E+02 | 10.0 | 7.84E+04 | | | 1952 | 1952 | 565145 |
| 116-B-14 | Liquid | 120.0 | 10.0 | | | 4.50E+02 | 10.0 | 6.20E+04 | | | 1948 | 1948 | 565145 |
| 116-B-15 | Liquid | 100.0 | 50.0 | | 5.00E+03 | 8.78E+02 | 6.0 | 6.73E+04 | 5.68E+05 | | Nov-84 | Dec-85 | 565144 |
| 116-B-16 | Liquid | 10.7 | 5.8 | | 6.13E+01 | 5.24E+01 | 9.0 | | | | | 1968 | 565144 |
| 116-B-2 | Liquid | 75.0 | 10.0 | | | 3.68E+03 | 15.0 | 8.34E+05 | 4.00E+06 | 4/1/86 | 1946 | 1946 | 565144 |
| 116-B-3 | Liquid | 10.0 | 10.0 | | | 7.43E+01 | 11.0 | 5.04E+04 | 4.00E+03 | 4/1/86 | 1951 | 1952 | 565144 |
| 116-B-4 | Liquid | | | 4.0 | | 2.59E+01 | 20.0 | 9.06E+04 | 3.00E+05 | 4/1/86 | 1957 | 1968 | 565144 |
| 116-B-5 | Liquid | 84.0 | 16.0 | | | 7.45E+02 | 10.0 | 9.09E+04 | 1.00E+07 | 4/1/86 | 1950 | 1968 | 565144 |
| 116-B-6A | Liquid | 12.0 | 8.0 | | | 6.72E+01 | 15.0 | 5.57E+04 | 5.00E+03 | 4/1/86 | 1951 | 1968 | 565144 |
| 116-B-6B | Liquid | 4.0 | 8.0 | | | 3.51E+01 | 8.0 | 4.45E+04 | 5.00E+03 | 4/1/86 | 1950 | 1953 | 565144 |
| 116-B-7 | Liquid | 27.0 | 14.0 | | | 3.32E+02 | | 1.45E+05 | | | 1944 | 1968 | 565145 |
| 116-B-9 | Liquid | | | 4.0 | | 2.27E+01 | 3.0 | 7.27E+03 | 4.00E+04 | | 1952 | 1954 | 565144 |
| 116-C-1 | Liquid | 500.0 | 50.0 | | | 6.11E+04 | 25.0 | 1.13E+06 | 1.00E+08 | 4/1/86 | 1952 | 1968 | 565145 |
| 116-C-2A | Liquid | 140.0 | 100.0 | | 1.40E+04 | 3.47E+03 | 20.0 | 1.72E+06 | 7.50E+06 | 4/1/86 | 1952 | 1968 ?1969 [65]? | 565144 |
| 116-C-2B | Liquid | 10.0 | 8.0 | | 8.00E+01 | 4.80E+01 | | 2.15E+05 | | | 1952 | 1969 | 565144 |
| 116-C-2C | Liquid | 23.0 | 16.0 | | 3.68E+02 | 6.16E+02 | 6.0 | 1.30E+05 | 7.50E+06 | 4/1/86 | 1952 | 1969 | 565144 |
| 116-C-3 | Liquid | | | | | 1.02E+02 | | 2.87E+04 | | | | | 565144 |
| 116-C-5 | Liquid | | | 330.0 | | 4.47E+05 | 16.0 | 4.93E+06 | | 4/1/86 | 1952 | 1969 | 565145 |
| 116-C-6 | Liquid | | | | 7.25E+03 | 2.92E+02 | 6.0 | 2.78E+04 | 2.16E+06 | 4/1/86 | Dec-84 | Aug-85 | 565144 |
| 116-D-10 | Liquid | | | | | 2.53E+02 | | 9.21E+03 | 2.35E+06 | | Jul-84 | Sep-84 | 573151 |
| 116-D-1A | Liquid | 130.0 | 10.0 | | | 1.98E+03 | 6.0 | 1.22E+05 | 2.00E+05 | 4/1/86 | 1947 | 1952 | 573151 |
| 116-D-1B | Liquid | 100.0 | 10.0 | | 1.00E+03 | 8.97E+02 | 15.0 | 2.22E+05 | 8.00E+06 | 4/1/86 | 1953 | 1967 | 573151 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 116-D-2 | Liquid | 10.0 | 10.0 | | | 7.43E+01 | 10.0 | 1.07E+05 | 4.00E+03 | | 1950 | 1952 | 573151 |
| 116-D-3 | Liquid | | | 3.0 | | 1.95E+01 | 5.0 | 1.34E+04 | 3.00E+04 | 4/1/86 | 1951 | 1967 | 573151 |
| 116-D-4 | Liquid | | | 3.0 | | 1.95E+01 | 5.0 | 1.34E+04 | 3.00E+04 | 4/1/86 | 1956 | 1957 | 573151 |
| 116-D-5 | Liquid | 60.0 | 24.0 | | 1.44E+03 | 1.16E+03 | | 2.22E+05 | | | 1944 | 1967 | 573152 |
| 116-D-6 | Liquid | | | 3.0 | | 1.90E+01 | 3.0 | 8.81E+03 | 1.00E+05 | 4/1/86 | 1961 | 1967 | 573151 |
| 116-D-7 | Liquid | 467.0 | 230.0 | | 1.07E+05 | 2.86E+05 | 24.0 | 4.55E+06 | | | 1944 | 1967 | 573152 |
| 116-D-9 | Liquid | 10.0 | 10.0 | | 1.00E+02 | 7.43E+01 | 10.0 | 5.04E+04 | 4.20E+05 | | 1960 | 1967 | 573151 |
| 116-DR-1 | Liquid | 300.0 | 15.0 | | 4.50E+03 | 3.95E+03 | 20.0 | 7.14E+05 | 4.00E+07 | 4/1/86 | 1951 | 1967 | 573152 |
| 116-DR-10 | Liquid | 80.0 | 50.0 | | 4.00E+03 | 8.20E+02 | 6.0 | 2.94E+04 | 9.08E+05 | | Oct-84 | Nov-84 | 573151 |
| 116-DR-2 | Liquid | 150.0 | 10.0 | | 1.50E+03 | 2.05E+03 | 20.0 | 4.52E+05 | 4.00E+07 | 4/1/86 | 1952 | 1967 | 574152 |
| 116-DR-3 | Liquid | 60.0 | 40.0 | | 2.40E+03 | 7.30E+02 | 10.0 | 9.04E+04 | 4.00E+06 | 4/1/86 | 1955 | 1955 | 573151 |
| 116-DR-4 | Liquid | 10.0 | 10.0 | | | 8.85E+01 | 15.0 | 8.74E+04 | 4.00E+03 | 4/1/86 | 1952 | 1953 | 573151 |
| 116-DR-5 | Liquid | 27.0 | 14.0 | | 3.78E+02 | 3.32E+02 | | 1.58E+05 | | | 1950 | 1965 | 573152 |
| 116-DR-6 | Liquid | 50.0 | 10.0 | | 5.00E+02 | 3.27E+02 | 10.0 | | 7.00E+06 | 4/1/86 | 1953 | 1965 | 573151 |
| 116-DR-7 | Liquid | 5.0 | 5.0 | | | 3.19E+01 | 10.0 | 4.30E+04 | 4.00E+03 | 4/1/86 | 1953 | 1953 | 573151 |
| 116-DR-8 | Liquid | 10.0 | 10.0 | | | 7.43E+01 | 10.0 | 1.19E+03 | 2.40E+05 | 4/1/86 | 1960 | 1964 | 573151 |
| 116-DR-9 | Liquid | 600.0 | 273.0 | | 1.64E+05 | 3.68E+05 | | 5.37E+06 | | 4/1/86 | 1950 | 1965 | 573152 |
| 116-F-1 | Liquid | 3000.0 | 40.0 | | | 2.73E+04 | 10.0 | 1.06E+06 | 1.00E+08 | 4/1/86 | 1953 | 1965 | 580147 |
| 116-F-10 | Liquid | | | 3.0 | | 2.34E+01 | 20.0 | 9.68E+04 | 4.00E+05 | 4/1/86 | 1948 | 1965 | 580147 |
| 116-F-11 | Liquid | | | 3.0 | | 1.90E+01 | 3.0 | 8.81E+03 | 2.00E+05 | 4/1/86 | 1953 | 1965 | 580147 |
| 116-F-12 | Liquid | | | 3.0 | | 1.98E+01 | 6.0 | 1.61E+04 | 1.00E+04 | 4/1/86 | 1944 | 1964 | 580147 |
| 116-F-13 | Liquid | | | 3.0 | | 1.90E+01 | 3.0 | 5.81E+03 | 1.00E+04 | 4/1/86 | 1952 | 1976 | 580148 |
| 116-F-14 | Liquid | 450.0 | 230.0 | | | 2.76E+05 | 24.0 | 4.05E+06 | | 4/1/86 | 1945 | 1965 | 581147 |
| 116-F-15 | Liquid | | | | | 7.43E+01 | | 5.04E+04 | | 4/1/86 | | | 580147 |
| 116-F-16 | Liquid | | | | | 2.91E+02 | | 1.59E+05 | | 4/1/86 | | | 580148 |
| 116-F-2 | Liquid | 300.0 | 50.0 | | | 4.24E+03 | 15.0 | 6.24E+05 | 6.00E+07 | 4/1/86 | 1950 | 1965 | 581147 |
| 116-F-3 | Liquid | 100.0 | | | | 9.96E+02 | | / | 8.00E+06 | 4/1/86 | 1947 | 1951 | 580147 |
| 116-F-4 | Liquid | 10.0 | 10.0 | | | 7.43E+01 | 10.0 | 5.04E+04 | 4.00E+03 | 4/1/86 | 1950 | 1952 ?1956 [17]? | 580147 |
| 116-F-5 | Liquid | 10.0 | 10.0 | | | 7.43E+01 | 10.0 | 5.04E+04 | 3.00E+03 | 4/1/86 | 1962 | 1964 | 580147 |
| 116-F-6 | Liquid | 300.0 | 100.0 | | | 5.65E+03 | 10.0 | 5.30E+05 | 1.00E+05 | 4/1/86 | 1952 | 1965 | 580147 |
| 116-F-7 | Liquid | | | 4.0 | | 2.59E+01 | 10.0 | 3.17E+04 | 3.00E+05 | 4/1/86 | 1960 | 1965 | 580147 |
| 116-F-8 | Liquid | 27.0 | 14.0 | | | 3.75E+02 | | 2.14E+05 | | 4/1/86 | 1945 | 1965 | 581148 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 116-F-9 | Liquid | | | | | 2.85E+03 | 10.0 | 3.44E+05 | 3.00E+08 | 4/1/86 | 1963 | 1976 | 581147 |
| 116-H-1 | Liquid | 200.0 | 25.0 | | | 3.80E+03 | 15.0 | 5.60E+05 | 9.00E+07 | 4/1/86 | 1952 | May-65 | 578152 |
| 116-H-2 | Liquid | 275.0 | 100.0 | | | 7.21E+03 | 6.0 | 1.31E+05 | 6.00E+08 | 4/1/86 | 1953 | 1965 | 577152 |
| 116-H-3 | Liquid | | | 3.0 | | 1.30E+02 | 15.0 | 1.13E+05 | 4.00E+05 | 4/1/86 | 1950 | 1965 | 577152 |
| 116-H-4 | Liquid | 4.0 | 4.0 | | | 2.14E+01 | 2.0 | 0.00E+00 | 1.00E+03 | | 1950 | 1952 | 577152 |
| 116-H-5 | Liquid | 27.0 | 14.0 | | 3.78E+02 | 3.32E+02 | | 1.58E+05 | | 4/1/86 | 1949 | 1965 | 578152 |
| 116-H-6 | Liquid | | | | 2.64E+04 | 4.90E+03 | | 8.70E+05 | | 1/1/73 | Jul-73 | Nov-85 | 577152 |
| 116-H-7 | Liquid | 600.0 | 273.0 | | 1.64E+05 | 4.37E+05 | 20.0 | 5.33E+06 | | 1/1/73 | 1949 | 1965 | 578152 |
| 116-H-9 | Liquid | 10.0 | 10.0 | | | 4.60E+01 | 10.0 | 3.99E+04 | 3.00E+05 | | 1960 | 1965 | 577152 |
| 116-K-1 | Liquid | | | | | 3.85E+04 | | 5.75E+06 | 4.00E+07 | 4/1/86 | 1955 | 1955 | 569147 |
| 116-K-2 | Liquid | 4000.0 | 45.0 | | | 6.69E+04 | 15.0 | 4.15E+06 | 3.00E+11 | 4/1/86 | 1955 | 1971 | 569147 |
| 116-K-3 | Liquid | 32.0 | 32.0 | | 1.02E+03 | 8.03E+02 | | 1.77E+05 | | | 1955 | active | 568147 |
| 116-KE-1 | Liquid | 40.0 | 40.0 | | | 3.80E+02 | 26.0 | 3.46E+05 | 8.00E+05 | 4/1/86 | 1955 | 1971 | 569146 |
| 116-KE-2 | Liquid | 16.0 | 16.0 | | | 3.13E+02 | 32.0 | 3.04E+05 | 3.00E+06 | 4/1/86 | 1955 | 1971 | 569146 |
| 116-KE-3 | Liquid | | | 20.0 | | 9.27E+01 | 78.0 | 4.61E+05 | | | 1955 | 1971 | 569146 |
| 116-KE-4 | Liquid | | | 250.0 | 3.00E+05 | 5.84E+05 | 25.0 | 9.98E+06 | | 4/1/86 | 1955 | 1971 | 569146 |
| 116-KW-1 | Liquid | 40.0 | 40.0 | | | 3.80E+02 | 26.0 | 3.71E+05 | 8.00E+05 | 4/1/86 | 1955 | 1970 | 568146 |
| 116-KW-2 | Liquid | | | 20.0 | | 9.27E+01 | 78.0 | 4.61E+05 | | | 1955 | 1970 | 568146 |
| 116-KW-3 | Liquid | | | 250.0 | | 5.84E+05 | 29.0 | 9.98E+06 | | 4/1/86 | 1944 | 1970 | 568146 |
| 116-N-1 | Liquid | 125.0 | 290.0 | | | 3.60E+04 | 12.0 | 1.07E+06 | | 9/1/85 | 1964 | 1985 | 571149 |
| 116-N-2 | Liquid | | | | | 7.43E+01 | | 6.61E+04 | | | 1964 | active | 571149 |
| 116-N-3 | Liquid | | | | | 3.16E+04 | | 8.37E+05 | | 1983 | Oct-83 | active | 571149 |
| 116-N-4 | Liquid | 130.0 | 80.0 | | | 1.71E+03 | | 4.51E+05 | | 1985 | Dec-63 | 1973 | 571149 |
| 118-B-1 | Solid | 1000.0 | 321.0 | | | 6.65E+04 | 20.0 | 5.09E+06 | 1.00E+04 | 4/1/86 | 1944 | 1973 | 564143 |
| 118-B-10 | Solid | 48.0 | 18.0 | | | 1.54E+03 | | 9.56E+04 | | | | | 565144 |
| 118-B-2 | Solid | 60.0 | 30.0 | | | 8.02E+02 | 10.0 | 2.84E+04 | 1.00E+02 | 4/1/86 | 1952 | 1956 | 565144 |
| 118-B-3 | Solid | 350.0 | 275.0 | | | 6.19E+04 | 20.0 | 6.50E+05 | 5.00E+03 | 4/1/86 | 1956 | 1960 | 565144 |
| 118-B-4 | Solid | 50.0 | 30.0 | | | 7.21E+01 | 15.0 | 5.71E+04 | 7.00E+01 | 4/1/86 | 1956 | 1958 | 565144 |
| 118-B-5 | Solid | 50.0 | 50.0 | | | 2.85E+03 | 20.0 | 8.57E+04 | 4.00E+01 | 4/1/86 | Jan-53 | 1953 | 565144 |
| 118-B-6 | Solid | 40.0 | 40.0 | | | 2.88E+01 | 20.0 | 5.01E+04 | 1.00E+01 | 4/1/86 | 1952 | 1953 | 565144 |
| 118-B-7 | Solid | 8.0 | 8.0 | | | 6.28E+01 | 8.0 | 9.75E+03 | | 4/1/86 | 1951 | 1968 | 565144 |
| 118-C-1 | Solid | 510.0 | 400.0 | | | 4.75E+04 | 15.0 | 3.97E+06 | 1.00E+04 | 4/1/86 | 1953 | 1969 | 565143 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 118-C-2 | Solid | | | 6.0 | | 4.00E+00 | 5.0 | 9.18E+02 | | 4/1/86 | 1969 | 1969 | 565144 |
| 118-D-1 | Solid | 450.0 | 375.0 | | | 1.05E+05 | 20.0 | | 1.00E+04 | 4/1/86 | 1944 | 1967 | 573150 |
| 118-D-2 | Solid | 1000.0 | 360.0 | | | 8.19E+04 | 20.0 | 6.85E+06 | 1.00E+04 | 4/1/86 | 1949 | 1970 | 572150 |
| 118-D-3 | Solid | 1000.0 | 250.0 | | | 6.07E+04 | 20.0 | 4.94E+06 | 1.00E+02 | 4/1/86 | 1956 | 1973 | 573151 |
| 118-D-4 | Solid | 600.0 | 200.0 | | | 3.32E+04 | 20.0 | 2.43E+06 | 2.00E+04 | 4/1/86 | 1953 | 1967 | 573151 |
| 118-D-5 | Solid | | | | 1.60E+03 | 8.68E+02 | 10.0 | 6.41E+04 | 1.00E+01 | 4/1/86 | 1954 | 1954 | 573151 |
| 118-DR-1 | Solid | 125.0 | 75.0 | | | 5.38E+03 | 15.0 | | 2.00E+01 | 4/1/86 | 1963 | 1964 | 573151 |
| 118-F-1 | Solid | 600.0 | 500.0 | | | 5.86E+04 | 20.0 | | 2.00E+04 | 4/1/86 | 1954 | 1965 | 580147 |
| 118-F-2 | Solid | 368.0 | 326.0 | | | 3.10E+04 | 20.0 | | 1.00E+04 | 4/1/86 | 1945 | 1965 | 579147 |
| 118-F-3 | Solid | 175.0 | 50.0 | | | 5.28E+03 | 15.0 | 1.42E+05 | 1.00E+01 | 4/1/86 | 1952 | 1952 | 580147 |
| 118-F-4 | Solid | 10.0 | 10.0 | | | 3.45E+02 | 10.0 | 1.87E+04 | 1.00E+01 | 4/1/86 | 1949 | 1949 | 580147 |
| 118-F-5 | Solid | 500.0 | 150.0 | | | 1.39E+04 | 15.0 | 1.30E+06 | 1.00E+04 | 4/1/86 | 1954 | 1975 | 581147 |
| 118-F-6 | Solid | 400.0 | 200.0 | | | 5.24E+04 | 20.0 | 6.40E+05 | 1.00E+04 | 4/1/86 | 1965 | Feb-73 | 580147 |
| 118-F-7 | Solid | 16.0 | 8.0 | | | 1.15E+02 | 8.0 | | | 4/1/86 | 1945 | 1965 | 580147 |
| 118-F-9 | Solid | 150.0 | 30.0 | | 4.50E+03 | 4.89E+03 | | 1.77E+05 | | 4/1/86 | | | 580147 |
| 118-H-1 | Solid | 700.0 | 350.0 | | | 6.59E+04 | 20.0 | 4.78E+06 | 1.00E+04 | 4/1/86 | 1949 | 1965 | 577152 |
| 118-H-2 | Solid | 140.0 | 50.0 | | | 2.34E+03 | 15.0 | | 2.00E+00 | 4/1/86 | 1955 | 1965 | 577152 |
| 118-H-3 | Solid | 300.0 | 200.0 | | | 3.99E+04 | 20.0 | 5.22E+05 | 3.00E+03 | 4/1/86 | 1953 | 1957 | 577152 |
| 118-H-4 | Solid | 150.0 | 30.0 | | | 1.82E+03 | 10.0 | 5.72E+04 | 2.00E+01 | 4/1/86 | 1953 | 1965 | 577152 |
| 118-H-5 | Solid | 30.0 | 10.0 | | | 9.25E+02 | 2.0 | 1.19E+05 | 3.00E+01 | 4/1/86 | 1953 | 1960 | 577152 |
| 118-K-1 | Solid | 1200.0 | 600.0 | | | 1.98E+05 | 20.0 | 1.18E+07 | 1.00E+04 | 4/1/86 | 1953 | 1973 | 569146 |
| 118-N-1 | Solid | | | | | 3.78E+02 | | 8.27E+04 | | | 1963 | active | 571149 |
| 120-B-1 | Liquid | | | | | 7.43E+01 | | 4.44E+04 | | | 1944 | 1969 | 565144 |
| 120-D-1 | Liquid | | | | | 1.56E+04 | | 2.56E+05 | | | Jan-77 | | 573152 |
| 120-D-2 | Solid | 92.3 | 92.3 | | 8.53E+03 | 4.90E+03 | 14.0 | 2.16E+05 | | | | | 573151 |
| 120-F-1 | Solid | 30.0 | 8.0 | | | 8.31E+01 | 4.0 | 8.21E+03 | | 4/1/86 | | | 581147 |
| 120-KE-1 | Liquid | 4.0 | 4.0 | | | 2.32E+01 | 4.0 | | | | 1955 | 1971 | 569146 |
| 120-KE-2 | Liquid | | | 3.0 | | 1.90E+01 | 3.0 | 8.81E+03 | | | 1955 | 1971 | 569146 |
| 120-KE-3 | Liquid | 40.0 | 3.0 | | | 4.91E+01 | 3.0 | | | | 1955 | 1970 | 569146 |
| 120-KE-6 | Liquid | | | | | 7.43E+01 | | 3.38E+04 | | | 1955 | 1971 | 569146 |
| 120-KE-8 | Liquid | 16.0 | 10.0 | | 1.60E+02 | 1.02E+02 | 10.0 | 3.20E+04 | | | 1955 | 1971 | 569146 |
| 120-KE-9 | Liquid | 23.0 | 17.0 | | 3.91E+02 | 2.19E+02 | 10.0 | 3.56E+04 | | | 1955 | 1971 | 569146 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 120-KW-1 | Liquid | 4.0 | 4.0 | | | 2.32E+01 | 4.0 | 1.15E+04 | | | 1955 | 1970 | 568146 |
| 120-KW-2 | Liquid | | | 3.0 | | 1.90E+01 | 3.0 | | | | 1955 | 1970 | 568146 |
| 120-KW-5 | Liquid | | | | | 7.43E+01 | | 3.38E+04 | | | 1955 | 1971 | 568146 |
| 120-KW-6 | Liquid | 16.0 | 10.0 | | 1.60E+02 | 1.02E+02 | 10.0 | 3.20E+04 | | | 1955 | 1970 | 568146 |
| 120-KW-7 | Liquid | 23.0 | 17.0 | | 3.91E+02 | 2.19E+02 | 10.0 | 1.27E+04 | | | 1955 | 1970 | 568146 |
| 120-N-1 | Liquid | | | | 2.90E+04 | 8.20E+03 | | 9.09E+05 | | | Aug-77 | active | 571149 |
| 120-N-2 | Liquid | | | | | 1.55E+03 | | 2.42E+05 | | | May-86 | Nov-88 | 571149 |
| 120-N-3 | Liquid | | | | | 2.32E+01 | | 1.15E+04 | | | Dec-63 | Mar-88 | 571149 |
| 120-N-5 | Liquid | | | | | 2.32E+01 | | 1.15E+04 | | | 1963 | active | 571149 |
| 120-N-6 | Liquid | | | | | 2.32E+01 | | 1.15E+04 | | | 1963 | Mar-88 | 571149 |
| 120-N-7 | Liquid | | | | | 2.32E+01 | | 1.15E+04 | | | 1963 | Mar-87 | 571149 |
| 120-N-8 | Liquid | | | | | 2.32E+01 | | 9.67E+03 | | | Dec-63 | Mar-88 | 571149 |
| 124-N-1 | Liquid | | | | | 4.65E+02 | | 7.00E+04 | | | 1963 | active | 571149 |
| 124-N-10 | Liquid | | | | | 1.89E+04 | | 2.50E+06 | | | Feb-87 | active | 572148 |
| 124-N-2 | Liquid | | | | | 7.81E+01 | | 1.55E+04 | | | 1963 | active | 571149 |
| 124-N-3 | Liquid | | | | | 2.32E+01 | | 1.14E+04 | | | 1982 | active | 571149 |
| 124-N-4 | Liquid | | | | | 9.71E+03 | | 1.37E+06 | | | 1963 | Feb-87 | 571149 |
| 124-N-5 | Liquid | | | | | 1.24E+03 | | 1.79E+05 | | | 1981 | Feb-87 | 571149 |
| 124-N-6 | Liquid | | | | | 3.78E+02 | | 5.76E+04 | | | 1979 | 1984 | 571149 |
| 124-N-7 | Liquid | | | | | 1.69E+03 | | 2.41E+05 | | | 1984 | Feb-87 | 571149 |
| 124-N-8 | Liquid | | | | | 3.04E+02 | | 4.67E+04 | | | 1983 | Feb-87 | 571149 |
| 124-N-9 | Liquid | | | | | 7.24E+02 | | 1.06E+05 | | | 1985 | active | 571149 |
| 126-B-1 | Solid | | | | | 5.14E+04 | | 9.77E+04 | | | 1944 | 1969 | 564145 |
| 126-B-2 | Solid | 751.0 | 135.0 | | 1.01E+05 | 6.31E+04 | | 6.79E+05 | | | | | 564144 |
| 126-B-3 | Solid | 400.0 | 225.0 | | 9.00E+04 | 4.38E+04 | | 2.56E+05 | | | 1970's | | 564144 |
| 126-B-4 | Solid | | | | | | | | | | | | 564144 |
| 126-D-1 | Solid | | | | | 2.67E+04 | | | | | 1950 | 1960 | 573151 |
| 126-D-2 | Solid | | | | | 5.84E+04 | | 2.06E+05 | | | 1970's | 1986 | 573151 |
| 126-D-3 | Solid | | | | | 6.02E+01 | | 1.78E+04 | | | | | 573151 |
| 126-DR-1 | Solid | 42.0 | 525.0 | | | 1.92E+04 | | 3.96E+05 | | | 1970's | | 573151 |
| 126-F-1 | Solid | | | | | 3.13E+04 | | 4.56E+05 | | 4/1/86 | 1944 | 1965 | 580147 |
| 126-F-2 | Solid | 751.0 | 135.0 | | 1.01E+05 | 6.78E+04 | | | | 4/1/86 | 1970's | | 580148 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 126-H-1 | Solid | | | | | 3.13E+04 | | 4.89E+05 | | | 1948 | 1965 | 577152 |
| 126-H-2 | Solid | 751.0 | 135.0 | | 1.01E+05 | 6.78E+04 | | | | | 1970's | | |
| 126-K-1 | Solid | | | | | 5.84E+04 | | 6.90E+05 | | | 1970's | active | 569146 |
| 128-B-1 | Solid | 100.0 | 100.0 | | | 3.44E+03 | 10.0 | 9.77E+04 | | | 1943 | 1950 | 565145 |
| 128-B-2 | Solid | 450.0 | 30.0 | | 1.35E+04 | 1.34E+04 | | 3.07E+05 | | | 1948 | 1968 | 566145 |
| 128-B-3 | Solid | 450.0 | 60.0 | | | 2.14E+04 | | 3.88E+05 | | | 1944 | 1968 | 566145 |
| 128-C-1 | Solid | 225.0 | 125.0 | | | 2.02E+04 | | 3.23E+05 | | | | | 565143 |
| 128-D-1 | Solid | 100.0 | 100.0 | | | 3.44E+03 | 10.0 | 7.52E+04 | | | 1944 | 1967 | 574151 |
| 128-D-2 | Solid | 240.0 | 240.0 | | 5.80E+04 | 3.84E+04 | | 5.05E+05 | | | | | 574151 |
| 128-F-1 | Solid | 100.0 | 100.0 | | | 3.44E+03 | 10.0 | 7.52E+04 | 2.00E+04 | 4/1/86 | 1945 | 1965 | 581147 |
| 128-F-2 | Solid | 150.0 | 60.0 | | 9.00E+03 | 5.29E+03 | | 1.39E+05 | | 4/1/86 | | | 581147 |
| 128-F-3 | Solid | 100.0 | 100.0 | | | 5.65E+03 | | 1.02E+05 | | 4/1/86 | | | 580147 |
| 128-H-1 | Solid | 100.0 | 100.0 | | | 3.44E+03 | 10.0 | 7.52E+04 | | 4/1/86 | 1949 | 1965 | 577153 |
| 128-H-2 | Solid | 120.0 | 80.0 | | | 3.32E+03 | | | | | | 1965 | |
| 128-H-3 | Solid | | | | | 3.32E+03 | | | | | | | |
| 128-K-1 | Solid | 100.0 | 100.0 | | | 3.44E+03 | 10.0 | 7.52E+04 | | | 1955 | 1971 | 569146 |
| 128-K-2 | Solid | 800.0 | 280.0 | | 7.50E+04 | 1.39E+05 | | | | | | | |
| 128-N-1 | Solid | | | | | 3.13E+04 | | 4.56E+05 | | | 1963 | 1989 | 572149 |
| 130-D-1 | Liquid | | | | | 5.92E+01 | | 3.78E+04 | | | 1944 | 1968 | 573151 |
| 130-K-1 | Liquid | | | | | 1.13E+02 | | 3.99E+03 | | | 1955 | 1972 | 569146 |
| 130-K-2 | Liquid | | | | | 6.41E+01 | | | | | 1955 | 1972 | 569146 |
| 130-K-3 | Liquid | | | | | 1.50E+02 | | 1.05E+05 | | | 1955 | 1971 | 568146 |
| 130-KE-1 | Liquid | | | | | 4.32E+01 | | | | | 1955 | 1971 | |
| 130-KE-2 | Liquid | | | | | 4.32E+01 | | 2.35E+04 | | | 1955 | 1971 | 569146 |
| 130-KW-1 | Liquid | | | | | 4.32E+01 | | 2.35E+04 | | | 1955 | 1970 | 568146 |
| 130-KW-2 | Liquid | | | | | 4.32E+01 | | 2.35E+04 | | | 1955 | 1970 | 568146 |
| 130-N-1 | Liquid | | | | | 2.44E+04 | | 3.65E+05 | | | 1983 | active | 570149 |
| 132-B-1 | Solid | 148.0 | 32.0 | | | 2.01E+03 | | 8.76E+04 | | | 1944 | 1970s | 565144 |
| 132-B-2 | Solid | 200.0 | | 16.6 | | | | | | | 1944 | 1968 | 565144 |
| 132-B-3 | Solid | 300.0 | | 18.0 | | 5.42E+03 | | 3.30E+05 | | | | | 565144 |
| 132-B-4 | Solid | 59.0 | 39.0 | | | 1.76E+03 | | 8.63E+04 | | | 1961 | 1968 | 565144 |
| 132-B-5 | Solid | 168.0 | | | | 5.66E+03 | | 1.29E+05 | | | 1952 | 1968 | 565144 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contaminated Volume m3 | Depth to Release ft | Overburden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 132-B-6 | Liquid | 27.0 | 14.0 | | | 3.32E+02 | | 1.45E+05 | | | 1944 | 1968 | 565145 |
| 132-C-1 | Solid | 200.0 | | | | 8.95E+03 | | 1.70E+05 | | | 1952 | 1969 | 565143 |
| 132-C-2 | Solid | | | | | 6.39E+02 | | 1.82E+05 | | | | | 565145 |
| 132-C-3 | Solid | 59.0 | 39.0 | | | 1.76E+03 | | 1.75E+05 | | | 1961 | 1969 | 565143 |
| 132-D-1 | Solid | 168.0 | 98.0 | | | 5.59E+03 | 11.0 | | | | 1944 | 1967 | 573151 |
| 132-D-2 | Solid | 59.0 | 39.0 | | | 1.35E+03 | | 2.87E+05 | | | 1961 | 1967 | 573151 |
| 132-D-3 | Liquid | 20.0 | 20.0 | | 4.00E+02 | 4.72E+02 | | 4.41E+05 | | | 1944 | 1965 | 573151 |
| 132-DR-1 | Liquid | 36.0 | 34.0 | | 1.22E+03 | 3.62E+02 | | 1.83E+04 | | | 1950 | 1964 | 573151 |
| 132-DR-2 | Solid | 200.0 | | 16.6 | | | | | | | 1950 | 1986 | 573151 |
| 132-F-3 | Solid | 168.0 | 98.0 | | | 6.99E+03 | 11.0 | 4.02E+04 | | | 1943 | 1956 | 580147 |
| 132-F-4 | Solid | 200.0 | | 16.6 | 2.20E+02 | 1.48E+04 | | 3.66E+05 | | 4/1/86 | 1944 | 1965 | 580147 |
| 132-F-5 | Solid | 59.0 | 39.0 | | | 2.09E+03 | | 3.58E+05 | | 4/1/86 | | | 580147 |
| 132-F-6 | Liquid | 36.0 | 34.0 | | | 9.74E+02 | | | | 4/1/86 | 1944 | 1965 | 580147 |
| 132-H-1 | Solid | 200.0 | | 16.6 | 2.20E+02 | 9.90E+03 | | 2.69E+05 | | | 1945 | 1965 | 577152 |
| 132-H-2 | Solid | 59.0 | 39.0 | | | 2.35E+03 | | | | | 1961 | 1965 | |
| 132-H-3 | Liquid | 36.0 | 34.0 | | | 1.37E+03 | | 4.01E+05 | | | 1949 | 1965 | 577152 |
| 132-KE-1 | Solid | 300.0 | | 22.0 | 3.80E+02 | | | | | | 1955 | 1971 | 569146 |
| 132-KW-1 | Solid | 300.0 | | 22.0 | 3.80E+02 | | | | | | 1955 | 1970 | 568146 |
| 1607-B1 | Liquid | 14.0 | 7.0 | | | 1.43E+03 | | 2.04E+05 | | | 1944 | 1960 | 566144 |
| 1607-B10 | Liquid | | | | | 1.40E+02 | | 2.46E+04 | | | 1952 | | 564143 |
| 1607-B11 | Liquid | | | | | 4.84E+01 | | 1.17E+04 | | | 1952 | | 564144 |
| 1607-B2 | Liquid | 25.0 | 11.5 | | | 5.10E+03 | | 7.18E+05 | | | 1944 | | 565144 |
| 1607-B3 | Liquid | 9.5 | 4.5 | | | 5.56E+02 | | 8.26E+04 | | | 1944 | 1974 | 564144 |
| 1607-B4 | Liquid | 6.0 | 3.0 | | | 1.26E+02 | | 2.26E+04 | | | 1944 | | 564144 |
| 1607-B5 | Liquid | 4.0 | 2.0 | | | 4.84E+01 | | 1.17E+04 | | | 1944 | active | 564145 |
| 1607-B6 | Liquid | 8.0 | 4.0 | | | 2.96E+02 | | 4.63E+04 | | | 1944 | 1988 | 564144 |
| 1607-B7 | Liquid | 6.0 | 3.0 | | | 1.49E+02 | | 2.58E+04 | | | 1951 | 1969 | 564144 |
| 1607-B8 | Liquid | | | | | 1.40E+02 | | 2.46E+04 | | | 1951 | 1969 | 565144 |
| 1607-B9 | Liquid | | | | | 8.85E+02 | | 1.29E+05 | | | | | 565143 |
| 1607-D1 | Liquid | 14.0 | 7.0 | | | 1.43E+03 | | 2.05E+05 | | | 1944 | 1965 | 574150 |
| 1607-D2 | Liquid | 26.5 | 12.0 | | | 6.27E+03 | | 8.83E+05 | | | 1944 | | 573152 |
| 1607-D3 | Liquid | 6.0 | 3.0 | | | 1.26E+02 | | 2.26E+04 | | | 1944 | | 573151 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx.yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1607-D4 | Liquid | 4.0 | 2.0 | | | 8.09E+01 | | 1.63E+04 | | | 1944 | 1968 | 573151 |
| 1607-D5 | Liquid | 4.0 | 2.0 | | | 8.09E+01 | | 1.63E+04 | | | 1944 | | 572151 |
| 1607-F1 | Liquid | 14.0 | 7.0 | | | 1.43E+03 | | 2.04E+05 | | 4/1/86 | 1944 | 1960 | 580146 |
| 1607-F2 | Liquid | 26.5 | 11.5 | | | 5.92E+03 | | 8.32E+05 | | 4/1/86 | 1944 | 1988 | 580147 |
| 1607-F3 | Liquid | 8.5 | 4.5 | | | 4.77E+02 | | 7.15E+04 | | 4/1/86 | 1944 | 1965 | 580148 |
| 1607-F4 | Liquid | 4.0 | 2.0 | | | 8.09E+01 | | 1.63E+04 | | 4/1/86 | 1944 | 1965 | 580147 |
| 1607-F5 | Liquid | 4.0 | 2.0 | | | 8.09E+01 | | 1.63E+04 | | 4/1/86 | 1944 | 1965 | 580148 |
| 1607-F6 | Liquid | | | | | 4.77E+02 | | 7.15E+04 | | 4/1/86 | 1945 | 1975 | 580147 |
| 1607-FSM | Liquid | | | | | | | | | | 1960 | active | 571145 |
| 1607-H1 | Liquid | | | | | 4.77E+02 | | 7.15E+04 | | | 1948 | | 577152 |
| 1607-H2 | Liquid | | | | | 4.77E+02 | | 7.15E+04 | | | 1949 | 1965 | 577153 |
| 1607-H3 | Liquid | | | | | 1.14E+03 | | 1.65E+05 | | 4/1/86 | 1948 | 1968 | 577153 |
| 1607-H4 | Liquid | | | | | 8.09E+01 | | 1.63E+04 | | 4/1/86 | 1948 | 1965 | 577151 |
| 1607-K1 | Liquid | | | | | 1.83E+02 | | 3.05E+04 | | | 1955 | active | 569146 |
| 1607-K2 | Liquid | | | | | 1.26E+02 | | 2.26E+04 | | | 1955 | active | 569146 |
| 1607-K3 | Liquid | | | | | 1.83E+02 | | 3.05E+04 | | | 1955 | 1970 | 568146 |
| 1607-K4 | Liquid | | | | | 1.83E+02 | | 3.05E+04 | | | 1955 | active | 568146 |
| 1607-K5 | Liquid | | | | | 2.39E+02 | | | | | 1955 | | |
| 1607-K6 | Liquid | | | | | 1.83E+02 | | 3.05E+04 | | | 1955 | active | 568146 |
| 200 CP | Solid | 1500.0 | 500.0 | | | | 20.0 | | | | 1945 | 1955 | 572136 |
| 200-E BP | Solid | 394.0 | 201.0 | | | | 15.0 | | | | 1950 | 1970 | 575137 |
| 200-E PAP | Solid | | | | 6.53E+05 | | | | | | 1943 | active | 574135 |
| 200-E PD | Liquid | | | | | | | | | | | | |
| 200-W ADB | Solid | | | | | | | | | | | | |
| 200-W BP | Solid | 200.0 | 200.0 | | | | 15.0 | | | | 1950 | 1970 | 567135 |
| 200-W CSLA | Solid | 400.0 | 175.0 | | | | 15.0 | | | | 1945 | 1950 | 567134 |
| 200-W PAP | Solid | | | | 4.36E+04 | | | | | | 1943 | | 567135 |
| 200-W PP | Liquid | | | | | | | | | | Aug-84 | active | 567136 |
| 207-A | Liquid | | | | | | | | | | Mar-77 | | 575136 |
| 207-B | Liquid | 246.0 | 123.0 | | | | 6.5 | | | | Apr-45 | | 573137 |
| 207-S | Liquid | 130.0 | 130.0 | | | | 8.0 | | | | Oct-51 | Apr-54 | 566133 |
| 207-SL | Liquid | 50.0 | 50.0 | | | | 12.0 | | | | Feb-52 | active | 567133 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 207-T | Liquid | 246.0 | 123.0 | | | | 6.5 | | | | Nov-44 | active | 566136 |
| 207-U | Liquid | | | | | | | | | | 1952 | | 567135 |
| 207-Z | Liquid | 50.0 | 40.0 | | | | 10.0 | | | | 1949 | 1959 | 566135 |
| 213-J&K | Liquid | 15.0 | 8.0 | | | | 5.0 | | | | 1944 | 1958 | 579140 |
| 216-A-1 | Liquid | 30.0 | 30.0 | | | 3.60E+02 | 15.0 | 1.10E+03 | 9.84E+04 | 12/31/89 | Nov-55 | Dec-55 | 575136 |
| 216-A-10 | Liquid | 275.0 | 45.0 | | | 3.30E+04 | 45.0 | 1.90E+05 | 3.21E+09 | 12/31/89 | 1956 | Mar-87 | 574135 |
| 216-A-11 | Liquid | | | 2.5 | | | 30.0 | | 1.00E+05 | | Jan-56 | 1972 | 575135 |
| 216-A-12 | Liquid | | | 2.5 | | | 33.0 | | 1.00E+05 | | Nov-55 | 1972 | 575135 |
| 216-A-13 | Liquid | | | 3.0 | | | 18.0 | | 1.00E+05 | | Jan-56 | Dec-62 | 574135 |
| 216-A-14 | Liquid | | | 2.5 | | | 29.0 | | 1.00E+03 | | Jan-56 | 1972 | 575135 |
| 216-A-15 | Liquid | | | 4.0 | | | 44.0 | | 1.00E+07 | | Dec-55 | 1972 | 575135 |
| 216-A-16 | Liquid | | | 3.5 | | | 17.0 | | 1.22E+05 | | Jan-56 | Mar-69 | 575136 |
| 216-A-17 | Liquid | | | 3.5 | | | 17.0 | | 6.00E+04 | | Jan-56 | Mar-69 | 575136 |
| 216-A-18 | Liquid | 80.0 | 80.0 | | | 1.60E+04 | 15.0 | 2.90E+05 | 4.88E+05 | 12/31/89 | Nov-55 | Jan-56 | 575136 |
| 216-A-19 | Liquid | 25.0 | 25.0 | | | 6.60E+01 | 15.0 | 1.20E+03 | 1.10E+06 | 12/31/89 | Nov-55 | Jan-56 | 575136 |
| 216-A-2 | Liquid | 20.0 | 20.0 | | | 2.10E+02 | 27.0 | 2.80E+03 | 2.30E+05 | 12/31/89 | Jan-56 | Jan-63 | 575135 |
| 216-A-20 | Liquid | 25.0 | 25.0 | | | 6.60E+01 | 15.0 | 1.20E+03 | 9.61E+05 | 12/31/89 | Nov-55 | Jan-56 | 575136 |
| 216-A-21 | Liquid | 60.0 | 16.0 | | | 1.40E+03 | 19.0 | 8.00E+03 | 7.79E+07 | 12/31/89 | Oct-57 | Jun-65 | 575135 |
| 216-A-22 | Liquid | | | 6.0 | | | 16.0 | | 1.00E+04 | | Mar-56 | Dec-58 | 574135 |
| 216-A-23A | Liquid | | | 3.5 | | | 13.0 | | 6.00E+03 | | Sep-57 | Mar-69 | 575136 |
| 216-A-23B | Liquid | | | 3.5 | | | 7.0 | | 6.00E+03 | | Sep-57 | Mar-69 | 575136 |
| 216-A-24 | Liquid | 1400.0 | 20.0 | | | 4.80E+03 | 15.0 | 2.00E+04 | 8.20E+08 | 12/31/89 | May-58 | Jan-66 | 575136 |
| 216-A-25 | Liquid | | | | | 1.50E+05 | | | 3.07E+11 | 12/31/89 | Dec-57 | 1987 | 574139 |
| 216-A-26 | Liquid | | | 4.0 | | | | | | | Jul-65 | active | 575135 |
| 216-A-26A | Liquid | | | 3.0 | | | 15.0 | | 1.00E+03 | | Mar-59 | Jul-65 | 575135 |
| 216-A-27 | Liquid | 200.0 | 10.0 | | | 7.70E+03 | 14.0 | 2.00E+04 | 2.32E+07 | 12/31/89 | Jun-65 | Jul-70 | 575135 |
| 216-A-28 | Liquid | | | 10.0 | | | 11.0 | | 3.00E+04 | 11/1/67 | Dec-58 | Nov-67 | 574135 |
| 216-A-29 | Liquid | 4000.0 | 6.0 | | | 9.60E+03 | | | | | Nov-55 | 1991 | |
| 216-A-3 | Liquid | 20.0 | 20.0 | | | 3.60E+02 | 16.0 | 8.80E+02 | 3.05E+06 | 12/31/89 | Jan-56 | Apr-81 | 575135 |
| 216-A-30 | Liquid | 1400.0 | 10.0 | | | 3.30E+03 | 12.0 | 4.60E+03 | 7.11E+09 | 12/31/89 | Jan-61 | active | 575135 |
| 216-A-31 | Liquid | 70.0 | 10.0 | | | 3.10E+02 | 24.0 | 2.70E+03 | 1.00E+04 | 12/31/89 | Jul-64 | Nov-66 | 575135 |
| 216-A-32 | Liquid | 70.0 | 8.0 | | | | 12.0 | | 4.00E+03 | | Jan-59 | 1972 | 575135 |





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*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-A-33 | Liquid | | | 6.0 | | | 12.0 | | | | Nov-55 | Jul-64 | 575135 |
| 216-A-34 | Liquid | 280.0 | | | | | 3.0 | | | | Nov-55 | Dec-57 | 575136 |
| 216-A-35 | Liquid | | | 6.0 | | | 16.0 | | 1.00E+04 | | Dec-63 | Jan-66 | 574135 |
| 216-A-36A | Liquid | 100.0 | 11.0 | | | 1.10E+02 | 22.0 | 2.90E+03 | 1.07E+06 | 12/31/89 | Sep-65 | Mar-66 | 575135 |
| 216-A-36B | Liquid | 500.0 | 11.0 | | | 8.30E+02 | 25.0 | 1.40E+04 | 3.17E+08 | 12/31/89 | Mar-66 | Sep-87 | 575135 |
| 216-A-37-1 | Liquid | 700.0 | 10.0 | | | 1.80E+03 | 11.0 | 3.40E+03 | 3.77E+08 | 12/31/89 | Mar-77 | active | 575135 |
| 216-A-37-2 | Liquid | 1400.0 | 10.0 | | | | 15.0 | | 1.09E+09 | 12/31/89 | 1983 | | 576135 |
| 216-A-38-1 | Liquid | 520.0 | 15.0 | | | | 37.0 | | | | never used | | 574135 |
| 216-A-4 | Liquid | 20.0 | 20.0 | | | 2.10E+02 | 26.0 | 2.60E+03 | 6.21E+06 | 12/31/89 | Dec-55 | Dec-58 | 575135 |
| 216-A-40 | Liquid | 400.0 | 20.0 | | | | 16.0 | | 9.46E+05 | | Jan-68 | May-79 | 575136 |
| 216-A-41 | Liquid | 10.0 | 10.0 | | | | 6.0 | | 1.00E+04 | | Jan-68 | 1974 | 575136 |
| 216-A-42 | Liquid | 342.0 | 30.0 | | | | 23.0 | | | | Sep-78 | active | 575135 |
| 216-A-45 | Liquid | 310.0 | 60.0 | | | | 37.5 | | 1.03E+08 | 12/31/89 | Mar-87 | | 574135 |
| 216-A-5 | Liquid | 35.0 | 35.0 | | | 6.90E+02 | 32.0 | 6.10E+03 | 1.63E+09 | 12/31/89 | Dec-55 | Oct-66 | 575135 |
| 216-A-524 | Liquid | 16.0 | 8.0 | | | | 11.0 | | | | 1957 | Jan-66 | 575136 |
| 216-A-6 | Liquid | 100.0 | 100.0 | | | 2.80E+03 | 19.0 | 6.90E+03 | 3.40E+09 | 12/31/89 | Nov-55 | Jan-70 | 575135 |
| 216-A-7 | Liquid | 10.0 | 10.0 | | | 1.40E+02 | 15.0 | 7.20E+02 | 3.26E+05 | 12/31/89 | Nov-55 | Nov-66 | 575136 |
| 216-A-8 | Liquid | 850.0 | 20.0 | | | 6.60E+03 | 14.0 | 1.00E+04 | 1.15E+09 | 12/31/89 | Nov-55 | | 575136 |
| 216-A-9 | Liquid | 420.0 | 20.0 | | | 2.10E+03 | 13.0 | 5.90E+03 | 9.81E+08 | 12/31/89 | Mar-56 | Aug-69 | 575136 |
| 216-B-10A | Liquid | 14.0 | 14.0 | | | 4.50E+01 | 20.0 | 7.70E+02 | 9.99E+06 | 12/31/89 | Dec-49 | Jan-52 | 573136 |
| 216-B-10B | Liquid | 14.0 | 14.0 | | | 4.50E+01 | 20.0 | 7.70E+02 | 2.80E+04 | 12/31/89 | Jun-69 | Oct-73 | 573136 |
| 216-B-11A&B | Liquid | | | 4.0 | | 2.60E+01 | 40.0 | 2.20E+01 | 2.96E+07 | 12/31/89 | Dec-51 | Dec-54 | 573137 |
| 216-B-12 | Liquid | 160.0 | 50.0 | | | 3.00E+03 | 26.0 | 6.90E+03 | 5.20E+08 | 12/31/89 | Nov-52 | Nov-73 | 573136 |
| 216-B-13 | Liquid | | | 4.0 | | | 18.0 | | 2.10E+04 | | Aug-47 | Jun-76 | 573136 |
| 216-B-14 | Liquid | 80.0 | 80.0 | | | 4.10E+02 | 12.0 | 9.50E+02 | 8.71E+06 | 12/31/89 | Jan-56 | Feb-56 | 573134 |
| 216-B-15 | Liquid | 80.0 | 80.0 | | | 4.10E+02 | 15.0 | 1.30E+03 | 6.32E+06 | 12/31/89 | Apr-56 | Dec-57 | 573134 |
| 216-B-16 | Liquid | 80.0 | 80.0 | | | 4.10E+02 | 12.0 | 9.50E+02 | 5.60E+06 | 12/31/89 | Apr-56 | Aug-56 | 573134 |
| 216-B-17 | Liquid | 80.0 | 80.0 | | | 4.10E+02 | 14.0 | 1.10E+03 | 3.41E+06 | 12/31/89 | Jan-56 | Jan-56 | 573134 |
| 216-B-18 | Liquid | 80.0 | 80.0 | | | 4.10E+02 | 14.0 | 1.50E+03 | 8.52E+06 | 12/31/89 | Mar-56 | Apr-56 | 573134 |
| 216-B-19 | Liquid | 80.0 | 80.0 | | | 4.10E+02 | 14.0 | 1.50E+03 | 6.40E+06 | 12/31/89 | Feb-57 | Oct-57 | 573134 |
| 216-B-2-1 | Liquid | 3500.0 | 15.0 | | | 3.90E+03 | 6.0 | 1.10E+04 | 1.49E+11 | | Apr-45 | Nov-63 | |
| 216-B-2-2 | Liquid | 2350.0 | 15.0 | | | 4.10E+03 | 8.0 | 1.30E+04 | 4.97E+07 | 12/31/89 | Nov-63 | May-70 | 573137 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-2-3 | Liquid | 4000.0 | 20.0 | | | 1.90E+03 | 8.0 | | | 12/31/89 | 1970 | 1987 | 573137 |
| 216-B-20 | Liquid | 500.0 | 10.0 | | | 2.70E+02 | 10.0 | 4.80E+03 | 4.68E+06 | 12/31/89 | Aug-56 | Sep-56 | 573134 |
| 216-B-21 | Liquid | 500.0 | 10.0 | | | 3.10E+02 | 10.0 | 5.60E+03 | 4.67E+06 | 12/31/89 | Sep-56 | Oct-56 | 573134 |
| 216-B-22 | Liquid | 500.0 | 10.0 | | | 3.10E+02 | 12.0 | 5.60E+03 | 4.74E+06 | 12/31/89 | Oct-56 | Oct-56 | 573134 |
| 216-B-23 | Liquid | 500.0 | 10.0 | | | 1.60E+02 | 8.0 | 2.90E+03 | 4.52E+06 | 12/31/89 | Oct-56 | Oct-56 | 573134 |
| 216-B-24 | Liquid | 500.0 | 10.0 | | | 2.30E+02 | 8.0 | 4.10E+03 | 4.70E+06 | 12/31/89 | Oct-56 | Nov-56 | 573134 |
| 216-B-25 | Liquid | 500.0 | 10.0 | | | 3.10E+02 | 10.0 | 5.60E+03 | 3.76E+06 | 12/31/89 | Nov-56 | Dec-56 | 573134 |
| 216-B-26 | Liquid | 500.0 | 10.0 | | | 1.60E+02 | 8.0 | 2.90E+03 | 5.88E+06 | 12/31/89 | Dec-56 | Feb-57 | 573134 |
| 216-B-27 | Liquid | 500.0 | 10.0 | | | 2.30E+02 | 8.0 | 4.10E+03 | 4.42E+06 | 12/31/89 | Feb-57 | Apr-57 | 573134 |
| 216-B-28 | Liquid | 500.0 | 10.0 | | | 3.10E+02 | 13.0 | 5.60E+03 | 5.05E+06 | 12/31/89 | Apr-57 | Jun-57 | 573134 |
| 216-B-29 | Liquid | 500.0 | 10.0 | | | 2.70E+02 | 10.0 | 4.80E+03 | 4.84E+06 | 12/31/89 | Jun-57 | Jul-57 | 573134 |
| 216-B-3 | Liquid | | | | | 6.30E+04 | | | 2.40E+11 | | Apr-45 | | 576136 |
| 216-B-3-1 | Liquid | 3200.0 | 6.0 | | | 3.70E+03 | 6.0 | 1.20E+04 | 1.49E+11 | | Apr-45 | Jul-64 | |
| 216-B-3-2 | Liquid | 3700.0 | 15.0 | | | | | | 1.49E+11 | | Jul-64 | Sep-70 | |
| 216-B-3-3 | Liquid | | 3700.0 | 20.0 | | | | | | | Sep-70 | | |
| 216-B-30 | Liquid | 500.0 | 10.0 | | | 2.70E+02 | 11.0 | 4.80E+03 | 4.78E+06 | 12/31/89 | Jul-57 | Jul-57 | 573134 |
| 216-B-31 | Liquid | 500.0 | 10.0 | | | 1.90E+02 | 10.0 | 3.50E+03 | 4.74E+06 | 12/31/89 | Jul-57 | Aug-57 | 573134 |
| 216-B-32 | Liquid | 500.0 | 10.0 | | | 2.70E+02 | 10.0 | 4.80E+03 | 4.77E+06 | 12/31/89 | Aug-57 | Sep-57 | 573134 |
| 216-B-33 | Liquid | 500.0 | 10.0 | | | 3.10E+02 | 10.0 | 5.60E+03 | 4.74E+06 | 12/31/89 | Sep-57 | Oct-57 | 573134 |
| 216-B-34 | Liquid | 500.0 | 10.0 | | | 1.90E+02 | 10.0 | 3.50E+03 | 4.87E+06 | 12/31/89 | Oct-57 | Oct-57 | 573134 |
| 216-B-35 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.06E+06 | 12/31/89 | Feb-54 | Mar-54 | 573137 |
| 216-B-36 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.94E+06 | 12/31/89 | Mar-54 | Apr-54 | 573137 |
| 216-B-37 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 4.32E+06 | 12/31/89 | Aug-54 | Aug-54 | 573137 |
| 216-B-38 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.43E+06 | 12/31/89 | Jul-54 | 1954 | 573137 |
| 216-B-39 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.54E+06 | 12/31/89 | Dec-53 | Nov-54 | 573137 |
| 216-B-3A | Liquid | | | | | | | | | | | | 577136 |
| 216-B-3B | Liquid | | | | | | | | | | | | 577136 |
| 216-B-3C | Liquid | | | | | | | | | | 1985 | | 577136 |
| 216-B-40 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.64E+06 | 12/31/89 | Apr-54 | Jul-54 | 573137 |
| 216-B-41 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.44E+06 | 12/31/89 | Nov-54 | Nov-54 | 573137 |
| 216-B-42 | Liquid | 252.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.20E+03 | 1.50E+06 | 12/31/89 | Jan-55 | Feb-55 | 573137 |
| 216-B-43 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 2.12E+06 | 12/31/89 | Nov-54 | Nov-54 | 573137 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-44 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 5.60E+06 | 12/31/89 | Nov-54 | Mar-55 | 573137 |
| 216-B-45 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 4.92E+06 | 12/31/89 | Apr-55 | Jun-55 | 573137 |
| 216-B-46 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 6.70E+06 | 12/31/89 | Sep-55 | Dec-55 | 573137 |
| 216-B-47 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 3.71E+06 | 12/31/89 | Sep-55 | Sep-55 | 573137 |
| 216-B-48 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 4.09E+06 | 12/31/89 | Nov-55 | Nov-55 | 573137 |
| 216-B-49 | Liquid | 75.0 | 75.0 | | | 4.20E+02 | 15.0 | 8.70E+02 | 6.70E+06 | 12/31/89 | Nov-55 | Dec-55 | 573137 |
| 216-B-5 | Liquid | | | 0.7 | | 1.60E+02 | 302.0 | 5.60E+02 | 3.06E+07 | 12/31/89 | Apr-45 | Oct-47 | 573136 |
| 216-B-50 | Liquid | 75.0 | 75.0 | | | 4.60E+02 | 15.0 | 7.90E+02 | 5.48E+07 | 12/31/89 | Jan-65 | Jan-74 | 573137 |
| 216-B-51 | Liquid | | | 5.0 | | | | | 1.00E+03 | | Jan-56 | Jan-58 | 573137 |
| 216-B-52 | Liquid | 580.0 | 10.0 | | | 1.90E+02 | 10.0 | 3.40E+03 | 8.53E+06 | 12/31/89 | Dec-57 | Jan-58 | 573134 |
| 216-B-53A | Liquid | 60.0 | 10.0 | | | 2.40E+01 | 10.0 | 4.30E+02 | 5.49E+05 | 12/31/89 | Oct-65 | Nov-65 | 573134 |
| 216-B-53B | Liquid | 150.0 | 10.0 | | | 4.00E+01 | 8.0 | 7.10E+02 | 1.51E+04 | 12/31/89 | Nov-62 | Mar-63 | 573134 |
| 216-B-54 | Liquid | 200.0 | 10.0 | | | 6.80E+01 | 8.0 | 1.20E+03 | 9.99E+05 | 12/31/89 | Mar-63 | Oct-65 | 573134 |
| 216-B-55 | Liquid | 750.0 | 10.0 | | | 1.70E+03 | 12.0 | 6.60E+03 | 1.23E+09 | 12/31/89 | Sep-67 | active | 573136 |
| 216-B-56 | Liquid | 70.0 | 10.0 | | 7.00E+02 | | | | | | never used | | 573136 |
| 216-B-57 | Liquid | 200.0 | 15.0 | | | 6.80E+02 | 10.0 | 1.30E+03 | 8.44E+07 | 12/31/89 | Feb-68 | Jun-73 | 573137 |
| 216-B-58 | Liquid | 200.0 | 10.0 | | | 4.70E+02 | 8.0 | 7.00E+02 | 4.13E+05 | 12/31/89 | Nov-65 | Jun-67 | 573134 |
| 216-B-59 | Liquid | 400.0 | 20.0 | | | 2.50E+02 | 12.0 | 2.90E+03 | 4.77E+05 | 12/31/89 | Dec-67 | | 573136 |
| 216-B-6 | Liquid | | | 0.5 | | | 75.0 | | 6.00E+06 | | Apr-45 | Dec-49 | 573136 |
| 216-B-60 | Liquid | | | 8.0 | | 6.70E+01 | 40.0 | 2.20E+03 | 1.89E+04 | 12/31/89 | Nov-67 | Nov-67 | 573136 |
| 216-B-61 | Liquid | | | | 1.75E+03 | | | | | | | | 573137 |
| 216-B-62 | Liquid | 500.0 | 10.0 | | | 9.50E+02 | 18.0 | 7.10E+03 | 2.82E+08 | 12/31/89 | Nov-73 | | 573136 |
| 216-B-63 | Liquid | 1400.0 | 4.0 | | | 5.90E+02 | 10.0 | 1.10E+04 | 7.22E+09 | | Mar-70 | | |
| 216-B-64 | Liquid | 142.0 | 20.0 | | | | 15.0 | | | | never used | | 573136 |
| 216-B-7A&B | Liquid | | | | | 4.30E+02 | 14.0 | 1.30E+03 | 4.36E+07 | 12/31/89 | Oct-46 | May-67 | 573137 |
| 216-B-8 | Liquid | | | | | 4.50E+03 | 23.0 | 1.90E+04 | 2.72E+07 | 12/31/89 | Apr-48 | Jul-53 | 573137 |
| 216-B-9 | Liquid | 194.0 | 64.0 | | | 1.60E+03 | 30.0 | 6.50E+03 | 3.60E+07 | 12/31/89 | Aug-48 | Jul-51 | 573136 |
| 216-C-1 | Liquid | 27.0 | 12.0 | | | 1.50E+02 | 13.0 | 5.50E+02 | 2.34E+07 | 12/31/89 | Jan-53 | Jun-57 | 574136 |
| 216-C-10 | Liquid | 32.0 | 5.0 | | | 6.60E+01 | 7.0 | 9.50E+01 | 8.97E+05 | 12/31/89 | Nov-64 | Oct-69 | 574136 |
| 216-C-2 | Liquid | | | 12.0 | | | 40.0 | | | | Jan-53 | May-88 | 574136 |
| 216-C-3 | Liquid | 50.0 | 10.0 | | | 3.10E+01 | 10.0 | 5.60E+02 | 5.00E+06 | 12/31/89 | Jan-53 | Mar-54 | 574136 |
| 216-C-4 | Liquid | 20.0 | 10.0 | | | 8.60E+01 | 16.0 | 4.40E+02 | 1.70E+05 | 12/31/89 | Jul-55 | May-65 | 574136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-C-5 | Liquid | 20.0 | 10.0 | | | 8.60E+01 | 16.0 | 4.40E+02 | 3.79E+04 | 12/31/89 | Mar-55 | Jun-55 | 574136 |
| 216-C-6 | Liquid | 20.0 | 10.0 | | | 8.60E+01 | 16.0 | 4.40E+02 | 5.30E+05 | 12/31/89 | Sep-55 | Sep-64 | 574136 |
| 216-C-7 | Liquid | 20.0 | 20.0 | | | 1.30E+02 | 12.0 | 3.40E+02 | 6.01E+04 | 12/31/89 | May-61 | | 574136 |
| 216-C-9 | Liquid | 800.0 | 100.0 | | 8.00E+04 | 2.60E+03 | 25.0 | 6.90E+03 | 1.03E+09 | 12/31/89 | Jun-53 | | 574136 |
| 216-N-1 | Liquid | 500.0 | 100.0 | | | | 3.0 | | 9.46E+08 | | Sep-44 | Jun-52 | 569140 |
| 216-N-2 | Liquid | 50.0 | 10.0 | | | 1.30E+01 | 7.0 | 2.30E+02 | 7.57E+06 | 12/31/89 | Mar-47 | Apr-47 | 569140 |
| 216-N-3 | Liquid | 50.0 | 20.0 | | | 1.90E+01 | 6.0 | 3.30E+02 | 7.57E+06 | 12/31/89 | May-52 | Jun-52 | 569140 |
| 216-N-4 | Liquid | 500.0 | 200.0 | | | 3.10E+03 | 3.0 | 8.70E+03 | 9.46E+08 | 12/31/89 | Sep-44 | Jun-52 | 570140 |
| 216-N-5 | Liquid | 80.0 | 15.0 | | | 2.30E+01 | 6.0 | 4.20E+02 | 7.57E+06 | 12/31/89 | May-52 | Jun-52 | 570140 |
| 216-N-6 | Liquid | 500.0 | 150.0 | | | 2.40E+03 | 3.0 | 6.60E+03 | 9.46E+08 | 12/31/89 | Sep-44 | Jun-52 | 571140 |
| 216-N-7 | Liquid | 80.0 | 15.0 | | | 2.30E+01 | 6.0 | 4.20E+02 | 7.57E+06 | 12/31/89 | May-52 | Jun-52 | 571140 |
| 216-N-8 | Liquid | | | | | | | | | | | | 573141 |
| 216-S-1&2 | Liquid | 90.0 | 40.0 | | | 1.70E+03 | 35.0 | 8.70E+03 | 1.60E+08 | 12/31/89 | Jan-52 | Jan-56 | 566134 |
| 216-S-10D | Liquid | 2250.0 | 6.0 | | | 2.20E+03 | 6.0 | | 4.34E+09 | 12/31/89 | Aug-51 | Oct-91 | 566133 |
| 216-S-10P | Liquid | | | | 2.18E+05 | 7.10E+03 | | | | | Feb-54 | Oct-84 | 566133 |
| 216-S-11 | Liquid | | | | 6.53E+04 | 2.10E+03 | | 5.70E+03 | 2.23E+09 | 12/31/89 | May-54 | Aug-65 | 566133 |
| 216-S-12 | Liquid | 90.0 | 20.0 | | | 6.60E+01 | 10.0 | 1.20E+03 | 6.81E+04 | 12/31/89 | Jul-54 | Jul-54 | 567134 |
| 216-S-13 | Liquid | 40.0 | 40.0 | | | 7.70E+02 | 34.0 | 5.20E+03 | 5.00E+06 | 12/31/89 | Jan-52 | Jul-72 | 567134 |
| 216-S-14 | Liquid | 100.0 | 8.0 | | | | 6.0 | | | 4/1/86 | Dec-51 | Jan-52 | 567133 |
| 216-S-15 | Liquid | 35.0 | 5.0 | | | | 5.0 | | 1.00E+04 | | Dec-51 | Oct-52 | 566134 |
| 216-S-16D | Liquid | 3000.0 | 4.0 | | | 2.00E+03 | 3.0 | 7.70E+02 | 4.00E+08 | | Jan-57 | Feb-75 | 565133 |
| 216-S-16P | Liquid | | | | 1.35E+06 | 4.30E+04 | 3.0 | 7.70E+04 | 4.07E+10 | 12/31/89 | Jan-57 | Feb-75 | 565133 |
| 216-S-17 | Liquid | 958.0 | 958.0 | | 9.15E+05 | 2.40E+04 | 10.0 | 8.50E+04 | 6.44E+09 | 12/31/89 | Oct-51 | Apr-54 | 566133 |
| 216-S-172 | Liquid | | | | | | | | | | 1956 | 1976 | 566133 |
| 216-S-18 | Liquid | 125.0 | 15.0 | | | | 10.0 | | | 12/31/89 | Oct-54 | Oct-54 | 567134 |
| 216-S-19 | Liquid | | | | 1.52E+05 | 5.00E+03 | | | 1.33E+09 | 12/31/89 | Feb-52 | Oct-84 | 567133 |
| 216-S-20 | Liquid | 90.0 | 40.0 | | | 1.50E+03 | 30.0 | 5.80E+03 | 1.35E+08 | 12/31/89 | Jan-52 | May-73 | 567133 |
| 216-S-21 | Liquid | 50.0 | 50.0 | | | 1.10E+03 | 21.0 | 2.20E+03 | 8.71E+07 | 12/31/89 | Nov-54 | Feb-69 | 566134 |
| 216-S-22 | Liquid | 100.0 | 3.5 | | | 1.70E+02 | 10.0 | 5.00E+02 | 9.84E+04 | 12/31/89 | Oct-57 | 1967 | 567133 |
| 216-S-23 | Liquid | 360.0 | 10.0 | | | 3.10E+02 | 27.0 | 1.20E+04 | 3.41E+07 | 12/31/89 | Jan-69 | Jul-72 | 567134 |
| 216-S-25 | Liquid | 575.0 | 10.0 | | 5.75E+03 | 1.10E+03 | 10.0 | 2.60E+03 | 2.88E+08 | 12/31/89 | Nov-73 | active | 566134 |
| 216-S-26 | Liquid | 420.0 | 10.0 | | | | 12.0 | | 1.64E+08 | 12/31/89 | Oct-84 | active | 567133 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-S-3 | Liquid | | | | | 3.60E+01 | 6.0 | 1.80E+02 | 4.20E+06 | 12/31/89 | Sep-53 | Aug-56 | 566134 |
| 216-S-4 | Liquid | | | | | | 20.0 | | 1.00E+06 | 4/1/86 | Aug-53 | Aug-56 | 566134 |
| 216-S-5 | Liquid | 210.0 | 210.0 | | | 1.30E+04 | 15.0 | 1.20E+04 | 4.10E+09 | 12/31/89 | Mar-54 | Mar-57 | 566133 |
| 216-S-6 | Liquid | 210.0 | 210.0 | | | 1.30E+04 | 15.0 | 1.20E+04 | 4.47E+09 | 12/31/89 | Nov-54 | Jul-72 | 566133 |
| 216-S-7 | Liquid | 100.0 | 50.0 | | | 1.10E+03 | 22.0 | 4.90E+03 | 3.90E+08 | 12/31/89 | Jan-56 | Jul-65 | 567134 |
| 216-S-8 | Liquid | 100.0 | 60.0 | | | 6.00E+02 | 25.0 | 1.10E+04 | 1.00E+07 | 12/31/89 | Nov-51 | Feb-52 | 566134 |
| 216-S-9 | Liquid | 300.0 | 30.0 | | | 1.80E+03 | 30.0 | 1.40E+04 | 5.03E+07 | 12/31/89 | Jul-65 | Jan-69 | 567134 |
| 216-T-1 | Liquid | 1825.0 | 3.0 | | | 2.20E+03 | 10.0 | | 1.78E+08 | 12/31/89 | Nov-44 | | 566136 |
| 216-T-10 | Liquid | 50.0 | 10.0 | | | | 6.0 | | | | Jun-51 | Mar-54 | 567136 |
| 216-T-11 | Liquid | 50.0 | 10.0 | | | | 6.0 | | | | Jun-51 | Mar-54 | 567136 |
| 216-T-12 | Liquid | 15.0 | 10.0 | | | 9.90E+00 | 8.0 | 1.70E+02 | 5.00E+06 | 12/31/89 | Nov-54 | Nov-54 | 567136 |
| 216-T-13 | Liquid | 20.0 | 20.0 | | | | 8.0 | | | | Jun-54 | Jun-64 | 566136 |
| 216-T-14 | Liquid | 275.0 | 10.0 | | | 1.10E+02 | 10.0 | 1.90E+03 | 1.00E+06 | 12/31/89 | Jan-54 | Jan-54 | 566136 |
| 216-T-15 | Liquid | 275.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 1.00E+06 | 12/31/89 | Jan-54 | Feb-54 | 566136 |
| 216-T-16 | Liquid | 275.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 1.00E+06 | 12/31/89 | Feb-54 | Feb-54 | 566136 |
| 216-T-17 | Liquid | 275.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 7.85E+05 | 12/31/89 | Feb-54 | Jun-54 | 566136 |
| 216-T-18 | Liquid | 30.0 | 30.0 | | | 5.90E+02 | 15.0 | 7.60E+02 | 1.00E+06 | 12/31/89 | Dec-53 | Dec-53 | 566136 |
| 216-T-19 | Liquid | | | | | 4.50E+03 | | 3.70E+04 | 4.55E+08 | 12/31/89 | Sep-51 | Jul-80 | 566135 |
| 216-T-2 | Liquid | | | 0.5 | | | 75.0 | | 6.00E+06 | | Jan-45 | May-50 | 567136 |
| 216-T-20 | Liquid | 10.0 | 10.0 | | | 2.00E+00 | 4.0 | 3.80E+01 | 1.89E+04 | 12/31/89 | Nov-52 | Nov-52 | 567136 |
| 216-T-21 | Liquid | 240.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 4.60E+05 | 12/31/89 | Jun-54 | Aug-54 | 566136 |
| 216-T-22 | Liquid | 240.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 1.53E+06 | 12/31/89 | Jul-54 | Aug-54 | 566136 |
| 216-T-23 | Liquid | 240.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 1.48E+06 | 12/31/89 | Jul-54 | Aug-54 | 566136 |
| 216-T-24 | Liquid | 240.0 | 10.0 | | | 1.20E+02 | 10.0 | 2.10E+03 | 1.53E+06 | 12/31/89 | Aug-54 | Aug-54 | 566136 |
| 216-T-25 | Liquid | 180.0 | 10.0 | | | 8.90E+01 | 10.0 | 1.60E+03 | 3.00E+06 | 12/31/89 | Sep-54 | Sep-54 | 566136 |
| 216-T-26 | Liquid | 30.0 | 30.0 | | | 4.60E+02 | 15.0 | 4.10E+02 | 1.20E+07 | 12/31/89 | Aug-55 | Nov-56 | 566136 |
| 216-T-27 | Liquid | 30.0 | 30.0 | | | 4.60E+02 | 15.0 | 4.10E+02 | 7.19E+06 | 12/31/89 | Sep-65 | Nov-65 | 566136 |
| 216-T-28 | Liquid | 30.0 | 30.0 | | | 4.60E+02 | 15.0 | 4.10E+02 | 4.23E+07 | 12/31/89 | Feb-60 | Feb-66 | 566136 |
| 216-T-29 | Liquid | 100.0 | 48.0 | | | | 13.0 | | 7.40E+04 | | Mar-49 | Mar-64 | 567136 |
| 216-T-3 | Liquid | | | | | 2.90E+00 | | 1.80E+03 | 1.13E+07 | 12/31/89 | Jun-45 | Aug-46 | 567136 |
| 216-T-31 | Liquid | | | 3.0 | | | | | | | Oct-54 | Feb-62 | 566136 |
| 216-T-32 | Liquid | 68.0 | 14.0 | | | 4.60E+02 | 26.0 | 4.60E+03 | 2.90E+07 | 12/31/89 | Nov-46 | May-52 | 566136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-T-33 | Liquid | 30.0 | 5.0 | | | 6.10E+01 | 11.0 | 2.70E+02 | 1.90E+06 | 12/31/89 | Jan-63 | Feb-63 | 567136 |
| 216-T-34 | Liquid | 200.0 | 30.0 | | | 1.20E+03 | 16.0 | 3.70E+03 | 1.73E+07 | 12/31/89 | May-66 | Mar-67 | 567137 |
| 216-T-35 | Liquid | 450.0 | 10.0 | | | 1.40E+03 | 15.0 | 5.00E+03 | 5.72E+06 | 12/31/89 | Mar-67 | Jan-68 | 567137 |
| 216-T-36 | Liquid | 160.0 | 10.0 | | | 4.10E+02 | 15.0 | 1.70E+03 | 5.22E+05 | 12/31/89 | May-67 | Feb-69 | 566136 |
| 216-T-4-1D | Liquid | 850.0 | 8.0 | | | 8.90E+02 | 4.0 | | | | Nov-44 | May-72 | |
| 216-T-4-2 | Liquid | 1750.0 | 8.0 | | | 8.90E+02 | 4.0 | | | | May-72 | | |
| 216-T-4A | Liquid | 1800.0 | 600.0 | | | 2.40E+04 | 4.0 | | 4.25E+10 | | Nov-44 | May-72 | 566137 |
| 216-T-4B | Liquid | 1800.0 | 600.0 | | | 2.40E+04 | 4.0 | | | 12/31/89 | May-72 | | 566137 |
| 216-T-5 | Liquid | 50.0 | 10.0 | | 5.00E+02 | 4.40E+01 | 12.0 | 7.90E+02 | 2.60E+06 | 12/31/89 | May-55 | May-55 | 566136 |
| 216-T-6 | Liquid | 28.0 | 28.0 | | | 2.90E+02 | 25.0 | 2.60E+03 | 4.50E+07 | 12/31/89 | Aug-46 | Jun-51 | 567136 |
| 216-T-7 | Liquid | | | | | 4.50E+03 | | 2.60E+04 | 1.10E+08 | 12/31/89 | Apr-48 | Nov-55 | 566136 |
| 216-T-8 | Liquid | 28.0 | 28.0 | | | 2.20E+02 | 20.0 | 2.10E+03 | 5.00E+05 | 12/31/89 | May-50 | Sep-51 | 567136 |
| 216-T-9 | Liquid | 50.0 | 10.0 | | | | 6.0 | | | | Feb-51 | Mar-54 | 567136 |
| 216-U-1&2 | Liquid | 78.0 | 28.0 | | | 2.20E+02 | 24.0 | 2.10E+03 | 4.62E+07 | 12/31/89 | Nov-51 | 6/67 (Crib 1) | 567135 |
| 216-U-10 | Liquid | | | | 9.58E+05 | 1.90E+02 | | | 1.65E+11 | 12/31/89 | Jul-44 | 1985 | 566134 |
| 216-U-11 | Liquid | | | | | 3.40E+03 | 7.0 | | | 1957 | Nov-44 | 1957 | 565134 |
| 216-U-12 | Liquid | 100.0 | 10.0 | | | 2.20E+03 | 13.0 | 2.70E+03 | 1.50E+08 | 12/31/89 | Apr-60 | Jan-88 | 567134 |
| 216-U-13 | Liquid | 200.0 | 20.0 | | | 6.40E+02 | 18.0 | 1.10E+04 | 1.14E+04 | 12/31/89 | Mar-52 | Mar-56 | 566135 |
| 216-U-14 | Liquid | 5680.0 | 8.0 | | | 4.90E+03 | | | | | Jul-44 | active | 566134 |
| 216-U-15 | Liquid | 20.0 | 20.0 | | | 5.40E+01 | 15.0 | 9.70E+02 | 6.81E+04 | 12/31/89 | May-57 | May-57 | 567135 |
| 216-U-16 | Liquid | 262.0 | 191.0 | | | | | | 4.09E+08 | 12/31/89 | Jul-84 | 1987 | 567134 |
| 216-U-17 | Liquid | | | | | | | | 2.11E+06 | 12/31/89 | Jan-88 | | 567134 |
| 216-U-3 | Liquid | | | 6.0 | | 1.00E+01 | 12.0 | 1.60E+02 | 7.91E+05 | 12/31/89 | May-54 | Aug-55 | 566134 |
| 216-U-4 | Liquid | | | 0.5 | | | 75.0 | | 3.00E+05 | | Mar-47 | Aug-55 | 567135 |
| 216-U-4A | Liquid | | | 4.3 | | 4.40E+00 | 10.0 | 7.40E+01 | 5.45E+05 | 12/31/89 | Jul-55 | Jul-70 | 567135 |
| 216-U-4B | Liquid | | | 3.0 | | 6.80E-01 | 10.0 | 1.70E+02 | 3.30E+04 | 12/31/89 | Jan-60 | Sep-68 | 567135 |
| 216-U-5 | Liquid | 40.0 | 35.0 | | | 2.70E+01 | 10.0 | 4.80E+02 | 2.25E+06 | 12/31/89 | Mar-52 | Mar-52 | 567135 |
| 216-U-6 | Liquid | 75.0 | 10.0 | | | 4.20E+01 | 10.0 | 7.60E+02 | 2.25E+06 | 12/31/89 | Mar-52 | Mar-52 | 567135 |
| 216-U-7 | Liquid | | | 2.5 | | | 17.0 | | 7.00E+03 | | Mar-52 | Jun-57 | 567135 |
| 216-U-8 | Liquid | 160.0 | 50.0 | | | 3.90E+03 | 31.0 | 1.00E+04 | 3.79E+08 | 12/31/89 | Jun-52 | Mar-60 | 567134 |
| 216-U-9 | Liquid | 3500.0 | 6.0 | | | 2.80E+03 | 6.0 | 9.00E+03 | | | Dec-52 | Apr-54 | 566133 |
| 216-W-LWC | Liquid | | | | | | 20.0 | | 1.20E+09 | 12/31/89 | Sep-81 | | 567135 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-Z-1&2 | Liquid | 30.0 | 30.0 | | | 8.30E+03 | 21.0 | 2.50E+03 | 3.37E+07 | 12/31/89 | Jun-49 | Apr-69 | 566135 |
| 216-Z-10 | Liquid | | | 0.5 | | 1.70E-01 | 150.0 | 1.30E+03 | 1.00E+06 | 6/1/45 | Feb-45 | Jun-45 | 566135 |
| 216-Z-11 | Liquid | 2615.0 | 4.0 | | | 5.50E+02 | 2.0 | 5.40E+01 | | 4/1/86 | Mar-59 | May-71 | 566134 |
| 216-Z-12 | Liquid | 300.0 | 20.0 | | | 5.40E+03 | 20.0 | 1.10E+04 | 2.81E+08 | 12/31/89 | Mar-59 | May-73 | 566135 |
| 216-Z-13 | Liquid | | | 3.0 | | | 15.0 | | | | Jun-49 | active | 566135 |
| 216-Z-14 | Liquid | | | 3.0 | | | 15.0 | | | | Jun-49 | active | 566135 |
| 216-Z-15 | Liquid | | | 3.0 | | | 22.0 | | | | Jun-49 | active | 566135 |
| 216-Z-16 | Liquid | 180.0 | 10.0 | | | 4.60E+02 | 15.0 | 2.10E+03 | 1.02E+08 | 1/1/77 | Mar-68 | Jan-77 | 566135 |
| 216-Z-17 | Liquid | 200.0 | 10.0 | | | 2.00E+02 | 8.0 | 3.60E+03 | 3.68E+07 | 2/1/68 | Feb-67 | Feb-68 | 566135 |
| 216-Z-18 | Liquid | | | | | 5.70E+03 | | 1.70E+04 | 3.86E+06 | 5/1/73 | Apr-69 | May-73 | 566135 |
| 216-Z-19 | Liquid | 2765.0 | 4.0 | | | 7.30E+01 | 4.0 | | | 4/1/86 | May-71 | Sep-81 | 566134 |
| 216-Z-1A | Liquid | | | | | | | | 5.21E+06 | 12/31/89 | 1949 | 1969 | 566135 |
| 216-Z-1D | Liquid | 4250.0 | 4.0 | | | 3.80E+01 | 2.0 | 4.80E+01 | 1.00E+06 | 4/1/86 | Dec-44 | Mar-59 | 566134 |
| 216-Z-20 | Liquid | 1519.0 | 10.0 | | | 2.40E+03 | | 6.00E+04 | 3.80E+09 | 12/31/89 | Sep-81 | active | 566135 |
| 216-Z-3 | Liquid | 70.0 | 5.0 | | | 1.50E+03 | 25.0 | 1.70E+03 | 1.78E+08 | 12/31/89 | Jun-52 | Mar-59 | 566135 |
| 216-Z-4 | Liquid | 10.0 | 10.0 | | | 5.60E+01 | 15.0 | 7.80E+02 | 1.10E+04 | 12/31/89 | Jun-45 | Jun-45 | 566135 |
| 216-Z-5 | Liquid | | | | | 2.10E+02 | | 2.00E+03 | 3.10E+07 | 12/31/89 | Jun-45 | Feb-47 | 566135 |
| 216-Z-6 | Liquid | 52.0 | 8.5 | | | 4.40E+01 | 8.0 | 4.20E+02 | 9.80E+04 | 12/31/89 | Jun-45 | Jun-45 | 566135 |
| 216-Z-7 | Liquid | 210.0 | 44.0 | | | 5.90E+02 | 5.0 | 1.70E+04 | 7.99E+07 | 12/31/89 | Feb-47 | Feb-67 | 566135 |
| 216-Z-8 | Liquid | | | 3.0 | | 5.80E+01 | 17.0 | 2.50E+02 | 9.59E+03 | 4/1/62 | Jul-55 | Apr-62 | 566135 |
| 216-Z-9 | Liquid | 60.0 | 30.0 | | | 5.10E+03 | 21.0 | 6.10E+03 | 4.09E+06 | 12/31/89 | Jul-55 | Jun-62 | 566135 |
| 218-C-9 | Solid | 283.0 | 283.0 | | 1.83E+05 | 2.60E+03 | 22.0 | 6.90E+03 | 2.27E+03 | 12/31/90 | 1985 | | 574136 |
| 218-E-1 | Solid | 486.0 | 290.0 | | | 3.00E+03 | 9.0 | 8.20E+03 | 3.03E+03 | 12/31/90 | 1945 | 1953 | 574135 |
| 218-E-12A | Solid | 1188.0 | 40.0 | | | 8.31E+04 | 16.0 | 1.30E+05 | 1.52E+04 | 12/31/90 | 1953 | 1967 | 574136 |
| 218-E-13 | Solid | 20.0 | 15.0 | | | 1.84E+02 | 8.0 | 1.75E+02 | | | | | 574135 |
| 218-E-2 | Solid | 541.0 | 441.0 | | | 1.15E+04 | 15.0 | 1.48E+04 | 9.03E+03 | | 1945 | 1953 | 573137 |
| 218-E-2A | Solid | 350.0 | 25.0 | | | 2.90E+03 | 15.0 | 2.78E+03 | | 1955 | 1945 | 1955 | 573136 |
| 218-E-3 | Solid | 42.0 | 30.0 | | | 7.60E+01 | 6.0 | 1.81E+02 | | | 1954 | 1954 | 572134 |
| 218-E-4 | Solid | 780.0 | 200.0 | | | 5.92E+03 | 15.0 | 6.91E+03 | 1.59E+03 | 12/31/90 | Feb-55 | 1956 | 573136 |
| 218-E-5 | Solid | 340.0 | 131.0 | | | 1.67E+04 | 15.0 | 1.89E+04 | 3.17E+03 | 12/31/90 | 1954 | 1956 | 573137 |
| 218-E-5A | Solid | 120.0 | 100.0 | | | 2.20E+03 | 15.0 | 1.30E+03 | 6.17E+03 | 12/31/90 | 1956 | 1959 | 573137 |
| 218-E-6 | Solid | | | | | | | 1.20E+01 | | | Fall 1955 | Fall 1955 | 573136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 218-E-7 | Solid | | | | | 1.46E+03 | | 4.56E+02 | 1.70E+02 | 12/31/90 | 1947 | 1952 | 573136 |
| 218-E-8 | Solid | 400.0 | 115.0 | | | 1.83E+04 | 15.0 | 1.68E+04 | 2.27E+03 | 12/31/90 | 1958 | 1959 | 575137 |
| 218-E-9 | Solid | 427.0 | 100.0 | | | 1.18E+04 | 5.0 | 8.45E+03 | | | 1953 | 1958 | 573137 |
| 218-W-1 | Solid | 521.0 | 458.0 | | | 8.98E+03 | 9.0 | 2.10E+03 | 7.16E+03 | 12/31/90 | 1944 | 1953 | 566136 |
| 218-W-11 | Solid | 500.0 | 200.0 | | | 3.09E+02 | 15.0 | 7.93E+02 | 1.16E+03 | 12/31/90 | 1960 | 1960 | 566136 |
| 218-W-1A | Solid | 864.0 | 755.0 | | | 2.04E+04 | 25.0 | 8.08E+03 | 1.37E+04 | 12/31/90 | 1944 | Mar-54 | 567137 |
| 218-W-2 | Solid | 589.0 | 521.0 | | | 2.29E+04 | 16.0 | 2.45E+04 | 8.24E+03 | 12/31/90 | Jan-53 | Dec-56 | 566136 |
| 218-W-2A | Solid | | | | | 9.48E+04 | 25.0 | 1.04E+05 | 2.51E+04 | 12/31/90 | Mar-54 | 1985 | 566136 |
| 218-W-3 | Solid | 716.0 | 510.0 | | | 2.53E+04 | 15.0 | 5.93E+04 | 1.09E+04 | 12/31/90 | Jan-57 | Jul-61 | 566136 |
| 218-W-4A | Solid | | | | | 2.65E+04 | 16.0 | 8.53E+04 | 1.77E+04 | 12/31/90 | 1958 | 1968 | 566136 |
| 218-W-7 | Solid | | | 12.0 | | 4.00E+00 | 25.5 | 2.00E+01 | 1.59E+02 | 12/31/90 | 1952 | 1960 | 567136 |
| 218-W-8 | Solid | | | 8.0 | | 5.40E+01 | 28.0 | 1.05E+03 | 6.80E+01 | 12/31/90 | 1945 | 1952 | 567136 |
| 218-W-9 | Solid | 140.0 | 98.0 | | 1.38E+05 | 4.03E+03 | 12.0 | 3.32E+03 | 4.86E+02 | 12/31/90 | Sep-54 | Sep-54 | 567134 |
| 240-S-151 | Liquid | | | | | | | | | | 1950 | Mar-87 | 567134 |
| 240-S-152 | Liquid | | | | | | | | | | 1977 | 1980 | 567134 |
| 240-S-302 | Liquid | | | | | | | | | | 1950 | Mar-87 | 567134 |
| 241-A-151 | Liquid | | | | | | | | | | 1956 | active | 575135 |
| 241-A-302A | Liquid | | | | | | | | | | 1956 | active | 575135 |
| 241-A-302B | Liquid | | | | | | | | | | | | 575136 |
| 241-B-154 | Liquid | 36.0 | 9.0 | | | | 17.0 | | | | 1945 | Jun-84 | 573136 |
| 241-B-302B | Liquid | | | | | | | | | | 1945 | Jul-85 | 573136 |
| 241-B-361 | Liquid | 19.0 | | 20.0 | | | | | | | Apr-45 | Sep-47 | 573136 |
| 241-BX-154 | Liquid | 22.0 | 9.0 | | | | | | | | 1948 | Jul-85 | 573136 |
| 241-BX-155 | Liquid | 20.0 | 9.0 | | | | | | | | 1948 | Jun-84 | 573136 |
| 241-BX-302B | Liquid | | | | | | | | | | 1948 | Jul-85 | 573136 |
| 241-BX-302C | Liquid | | | | | | | | | | 1948 | Jul-85 | 573136 |
| 241-CX-TK-70 | Liquid | 15.0 | | 20.0 | | | | | | | 1952 | 1957 | 574136 |
| 241-CX-TK-71 | Liquid | 9.0 | | 9.0 | | | | | | | Dec-52 | Jun-57 | 574136 |
| 241-CX-TK-72 | Liquid | 35.7 | 4.0 | | | | | | | | 1957 | 1976 | 574136 |
| 241-ER-151 | Liquid | | | | | | | | | | 1945 | active | 573136 |
| 241-ER-152 | Liquid | | | | | | | | | | 1945 | | 573136 |
| 241-ER-311 | Liquid | | | | | | | | | | 1945 | | 573136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 241-S-151 | Liquid | 56.0 | 10.0 | | | | 17.0 | | | | 1952 | active | 566134 |
| 241-S-302A | Liquid | | | | | | | | | | 1952 | inactive | 566134 |
| 241-SX-302 | Liquid | | | | | | | | | | 1954 | 1983 | 566134 |
| 241-T-361 | Liquid | 19.0 | | 20.0 | | | | | | | | 1976 | 567136 |
| 241-TX-152 | Liquid | | | | | | | | | | 1949 | active | 567136 |
| 241-TX-154 | Liquid | | | | | | | | | | 1949 | active | 567136 |
| 241-TX-155 | Liquid | | | | | | | | | | 1949 | Dec-80 | 567136 |
| 241-TX-302B | Liquid | | | | | | | | | | 1949 | 1982 | 567136 |
| 241-TX-302BR | Liquid | 32.8 | | 8.0 | | | | | | | Early 1950's | Dec-84 | |
| 241-TX-302C | Liquid | | | | | | | | | | 1949 | active | 567136 |
| 241-U-361 | Liquid | 19.0 | | 20.0 | | | | | | | 1951 | 1957 | |
| 241-UX-154 | Liquid | 52.5 | 6.0 | | | | | | | | 1946 | | 567135 |
| 241-UX-302A | Liquid | | | | | | | | | | | | |
| 241-WR VAULT | Liquid | 128.0 | 66.0 | | | | | | | | | 1976 | 567135 |
| 241-Z-361 | Liquid | 28.0 | 15.0 | | | | | | | | 1949 | 1976 | 566135 |
| 2607-E1 | Liquid | 25.0 | 10.5 | | | | | | | | 1970 | active | 573135 |
| 2607-E3 | Liquid | 21.0 | 9.0 | | | | | | | | 1944 | | 573136 |
| 2607-E4 | Liquid | 4.0 | 2.0 | | | | | | | | 1944 | | 573136 |
| 2607-E5 | Liquid | 21.0 | 9.0 | | | | | | | | 1944 | active | 574136 |
| 2607-E6 | Liquid | | | | | | | | | | 1954 | | 574135 |
| 2607-E7A | Liquid | 4.0 | 2.0 | | | | | | | | 1983 | active | 574136 |
| 2607-E7B | Liquid | | | | | | | | | | | active | 573135 |
| 2607-E8 | Liquid | | | | | | | | | | 1978 | active | 573135 |
| 2607-E9 | Liquid | | | | | | | | | | 1951 | active | 573137 |
| 2607-EA | Liquid | | | | | | | | | | 1976 | active | 575136 |
| 2607-EC | Liquid | | | | | | | | | | 1955 | | 575135 |
| 2607-EH | Liquid | | | | | | | | | | 1983 | active | 573135 |
| 2607-EK | Liquid | | | | | | | | | | 1980 | active | 573135 |
| 2607-EL | Liquid | | | | | | | | | | 1983 | | 575135 |
| 2607-EM | Liquid | | | | | | | | | | 1984 | active | 572135 |
| 2607-EP | Liquid | | | | | | | | | | 1984 | active | 572135 |
| 2607-EQ | Liquid | | | | | | | | | | 1985 | active | 573135 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2607-ER | Liquid | | | | | | | | | | | | 572135 |
| 2607-FSN | Liquid | | | | | | | | | | 1960 | active | 570135 |
| 2607-GF | Liquid | | | | | | | | | | | | 574135 |
| 2607-W1 | Liquid | 25.0 | 10.5 | | | | | | | | 1944 | | 567135 |
| 2607-W2 | Liquid | 14.0 | 7.0 | | | | | | | | 1980 | active | 568135 |
| 2607-W3 | Liquid | 21.0 | 9.0 | | | | | | | | 1944 | active | 566136 |
| 2607-W4 | Liquid | 4.0 | 2.0 | | | | | | | | 1944 | active | 567136 |
| 2607-W5 | Liquid | 21.0 | 9.0 | | | | | | | | 1944 | active | 567134 |
| 2607-W6 | Liquid | | | | | | | | | | 1951 | active | 567133 |
| 2607-W7 | Liquid | 4.0 | 2.0 | | | | | | | | 1954 | | 567135 |
| 2607-W8 | Liquid | 12.5 | 6.0 | | | | | | | | 1959 | active | 566135 |
| 2607-W9 | Liquid | | | | | | | | | | 1950 | active | 566134 |
| 2607-WA | Liquid | | | | | | | | | | 1968 | active | 566135 |
| 2607-WT | Liquid | | | | | | | | | | 1952 | active | 566136 |
| 2607-WWA | Liquid | | | | | | | | | | 1955 | active | 565135 |
| 2607-WZ | Liquid | | | | | | | | | | 1944 | active | 566134 |
| 2607-Z | Liquid | | | | | | | | | | | active | 566135 |
| 2607-Z8 | Liquid | | | | | | | | | | 1965 | active | 566135 |
| 270-E CNT | Liquid | | | 9.0 | | | | | | | | 1976 | 573136 |
| 270-W | Liquid | 9.0 | | 9.0 | | | 10.0 | | | | 1952 | 1960 | |
| 2904-S-160 | Liquid | | | | | | | | | | 1954 | 1976 | 566133 |
| 2904-S-170 | Liquid | 15.0 | 7.0 | | | | | | | | 1954 | 1976 | 567133 |
| 2904-S-171 | Liquid | 13.0 | 12.0 | | | | | | | | 1954 | 1976 | 566133 |
| 299-E24-111 | Liquid | | | | | | | | | | Sep-80 | Feb-81 | 574135 |
| 300 ASH PITS | Solid | | | | | | | | | | 1975 | active | 594115 |
| 300 FBP | Liquid | | | | | | | | | | Apr-87 | active | 594115 |
| 300 IFBD | Liquid | | | | | 2.79E+05 | | 5.46E+05 | | | Jan-87 | Apr-87 | 593116 |
| 300 RFBP | Liquid | | | | | | | | | | 1975 | Jan-87 | 594116 |
| 300 RLWS 340 C | Liquid | | | | | 1.44E+03 | | 2.04E+05 | | | 1954 | active | 594115 |
| 300 RRLWS | Liquid | | | | | 5.80E+03 | | 2.37E+06 | | | 1954 | 1975 | 594115 |
| 300 SSS | Liquid | | | | | | | | | | 1975 | active | 594116 |
| 300 VTS | Solid | | | | | | | | | | 1983 | 1986 | 593116 |





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*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 307 RB | Liquid | | | | | 5.50E+02 | | 7.27E+04 | | | | active | 593115 |
| 309-TW-1 | Liquid | | | | | 3.81E+01 | | 1.66E+05 | | | 1960 | 1973 | 594115 |
| 309-TW-2 | Liquid | | | | | 3.90E+01 | | 1.66E+05 | | | 1960 | 1973 | 594115 |
| 309-TW-3 | Liquid | | | | | 3.17E+01 | | 1.42E+05 | | | 1960 | 1973 | 594115 |
| 315 RSDF | Liquid | | | | | 1.43E+03 | | 2.04E+05 | | | 1950 | 1978 | 594115 |
| 316-1 | Liquid | 600.0 | 375.0 | | | | 9.0 | | 1.00E+10 | 4/1/86 | 1945 | May-75 | 594116 |
| 316-2 | Liquid | 620.0 | 600.0 | | | | 10.0 | | 1.00E+10 | 4/1/86 | 1949 | May-74 | 594116 |
| 316-3 | Liquid | 600.0 | 10.0 | | | 1.07E+04 | 20.0 | 5.95E+05 | 1.00E+09 | | 1953 | 1963 | 594115 |
| 316-4 | Liquid | | | | | 8.06E+01 | | 8.51E+04 | 2.00E+05 | | 1948 | 1955/1956 | 591122 |
| 316-5 | Liquid | | | | | | | | 5.03E+10 | 12/31/89 | May-75 | active | 594116 |
| 331 LSLDF | Liquid | | | | | 4.84E+01 | | 1.17E+04 | | | 1970 | 1974 | 594115 |
| 331 LSLT1 | Liquid | | | | | 6.33E+01 | | 9.68E+03 | | | 1966 | 1969 | |
| 331 LSLT2 | Liquid | | | | | 6.33E+01 | | 9.68E+03 | | | 1969 | 1974 | |
| 335 & 336 RSDF | Liquid | | | | | 1.43E+03 | | 2.04E+05 | | | 1973 | 1978 | 594115 |
| 400 FD10 | Liquid | | | 4.0 | | 2.17E+01 | | 1.97E+04 | | | 1979 | active | 587123 |
| 400 FD10A | Liquid | | | 4.0 | | 2.17E+01 | | 1.97E+04 | | | 1979 | active | 587123 |
| 400 FD1A | Liquid | | | 4.0 | | 2.17E+01 | | 1.97E+04 | | | 1979 | active | 587123 |
| 4713-B FD | Liquid | | | 4.0 | | 2.17E+01 | | 1.97E+04 | | | 1979 | active | 587123 |
| 4722-B FD | Liquid | | | 4.0 | | 2.17E+01 | | 1.97E+04 | | | 1979 | active | 587122 |
| 4722-C FD | Liquid | | | 4.0 | | 2.17E+01 | | 1.97E+04 | | | 1979 | active | 587122 |
| 600 AMBS | Solid | 2.0 | 3.0 | | | | 2.0 | | | | 1971 | 1976 | 559138 |
| 600 BPHWSA | Liquid | | | | | | | | | | 1984 | active | 571136 |
| 600 CL | Solid | | | | | | | | | | Jul-73 | active | 578131 |
| 600 ESHWSA | Liquid | | | | | | | | | | 1983 | 1987 | 564135 |
| 600 ESST | Liquid | | | | | | | | | | 1981 | 1988 | 564135 |
| 600 NDWL | Solid | | | | | | | | | | 1980 | May-88 | 578132 |
| 600 NSTFST | Liquid | | | | | | | | | | 1981 | inactive | 573142 |
| 600 NSTFUT | Liquid | | | | | | | | | | 1981 | 1988 | 574142 |
| 600 OCL | Solid | 300.0 | 50.0 | | | | 15.0 | | | | 1973 | 1973 | 581132 |
| 618-1 | Solid | 320.0 | 150.0 | | 3.55E+04 | 7.69E+03 | 20.0 | 6.14E+05 | | 4/1/86 | 1944 | 1951 | 594116 |
| 618-10 | Solid | 500.0 | 500.0 | | | 1.04E+05 | 25.0 | 3.68E+06 | | 4/1/86 | Mar-54 | Sep-63 | 590121 |
| 618-11 | Solid | 1000.0 | 375.0 | | | 7.61E+04 | 15.0 | 3.45E+06 | | 4/1/86 | Mar-62 | Dec-67 | 589127 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 618-12 | Solid | 400.0 | 200.0 | | | | 8.0 | | | | 1949 | 1964 | 594116 |
| 618-13 | Solid | | | | | 3.85E+03 | | 2.18E+04 | | | 1951 ?1950 [309]? | 1974 ?1950 [309]? | 592116 |
| 618-2 | Solid | 350.0 | 215.0 | | | 8.64E+03 | 15.0 | 1.38E+06 | | 4/1/86 | 1951 | 1954 | 594116 |
| 618-3 | Solid | 350.0 | 165.0 | | | 2.79E+04 | 15.0 | 3.45E+05 | | | 1954 | 1955 | 593116 |
| 618-4 | Solid | 570.0 | 220.0 | | | | 15.0 | | | | 1955 | 1961 | 594117 |
| 618-5 | Solid | 300.0 | 18.0 | | | | 15.0 | | | 4/1/86 | 1945 | 1962 | 594116 |
| 618-6 | Solid | | | | | | | | | | 1944 | 1946 | 594115 |
| 618-7 | Solid | 1120.0 | 650.0 | | | 1.83E+05 | 12.0 | 5.62E+06 | | 4/1/86 | 1960 ?1955 [83]? | 1973 ?1956 [83]? | 592116 |
| 618-8 | Solid | 600.0 | 100.0 | | | 8.92E+03 | 15.0 | 8.70E+05 | | 4/1/86 | 1943 | 1944 | 593116 |
| 618-9 | Solid | 180.0 | 40.0 | | | 1.78E+03 | 15.0 | 9.61E+04 | | 4/1/86 | 1950 | 1954 ?1956 [309]? | 592116 |
| 622-1 | Solid | 100.0 | 100.0 | | | | | | | | | | |
| 622-R ST | Liquid | | | | | | | | | | 1965 | active | 569137 |
| 628-1 | Solid | | | | | 3.69E+03 | | | | | | inactive | 579147 |
| 628-2 | Solid | | | | | | | | | | | 1985 | 572145 |
| 628-3 | Solid | 250.0 | 40.0 | | 1.00E+04 | 3.69E+03 | | | | | | | |
| 628-4 | Solid | | | | | | | | | | 1962 | | 594116 |
| 6607-1 | Liquid | | | | | | | | | | 1940's | 1950's | 576133 |
| 6607-2 | Liquid | | | | | | | | | | 1940's | 1950's | 576130 |
| B PLANT FILTER | Liquid | | | | | | | | | | Apr-45 | active | 573136 |
| CFTN 2703-E | Liquid | | | | | | | | | | | inactive | 573135 |
| EWBCL | Solid | 100.0 | 100.0 | | | 3.44E+03 | 10.0 | | | | 1850 | 1943 | 579148 |
| HSVP | Liquid | | | | | | | | | | | inactive | 574136 |
| HTCL | Solid | 100.0 | 100.0 | | | | | | | | 1943 | 1945 | 586138 |
| HTL | Solid | 200.0 | 200.0 | | | | 20.0 | | | | 1850 | 1943 | 585139 |
| JA JONES 1 | Solid | 100.0 | 50.0 | | | 1.88E+03 | 10.0 | 9.16E+03 | | | 1975 | 1979 | |
| JA JONES 2 | Solid | 30.0 | 30.0 | | | 8.92E+02 | 15.0 | | | | 1948 | 1955 | 577149 |
| OCSA | Solid | | | | | | | | | | | inactive | 570138 |
| P-11 | Liquid | 8.0 | 8.0 | | | | 5.0 | | | | 1951 | Dec-51 | 581142 |
| RRCWP | Solid | 40.0 | 6.0 | | | | 3.0 | | | | 1940's | inactive | 559143 |
| SDBDL | Solid | 100.0 | 50.0 | | | | 10.0 | | | | 1945 | 1945 | 576151 |
| TFS OF 218-E-4 | Liquid | | | | | | | | | | | | |
| UPR-100-F-1 | Liquid | 40.0 | 40.0 | | 1.60E+03 | 3.22E+02 | | 8.25E+03 | 6.44E+04 | 4/1/86 | 1945 | 1975 | 580147 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPR-100-K-1 | Liquid | | | | | 1.64E+03 | | 3.45E+04 | | | 1979 | 1979 | 569146 |
| UPR-100-N-1 | Liquid | | | | 1.50E+02 | 5.84E+01 | | 6.06E+03 | 1.14E+05 | | Mar-74 | inactive | 570148 |
| UPR-100-N-10 | Liquid | 10.0 | 10.0 | | 1.00E+02 | 4.60E+01 | | 5.47E+03 | 3.79E+02 | 1975 | May-75 | | 571149 |
| UPR-100-N-11 | Liquid | | | | | 6.82E+00 | | | | | | | 570148 |
| UPR-100-N-12 | Liquid | 2.0 | 3.0 | | | 1.68E+01 | 1.5 | 3.78E+03 | 9.46E+05 | 1979 | Feb-79 | | 571149 |
| UPR-100-N-13 | Liquid | | | | | 3.36E+00 | | 5.77E+02 | 2.84E+02 | 1973 | Sep-73 | | 571149 |
| UPR-100-N-14 | Liquid | | | | 8.00E+02 | 1.81E+02 | | 9.99E+03 | 2.65E+02 | 1974 | Aug-74 | | 571149 |
| UPR-100-N-15 | Liquid | | | | | 3.24E+01 | | 4.78E+03 | | 1981 | Mar-81 | | 571149 |
| UPR-100-N-17 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 3.03E+05 | 1966 | Aug-66 | | 571149 |
| UPR-100-N-18 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 7.57E+02 | 1973 | Aug-73 | | 571149 |
| UPR-100-N-19 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 7.57E+03 | 1984 | Apr-84 | | 571149 |
| UPR-100-N-2 | Liquid | 17.0 | 17.0 | | 3.00E+02 | 8.76E+01 | 10.0 | 4.40E+04 | 1.14E+05 | | Feb-80 | | 571149 |
| UPR-100-N-20 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 7.57E+02 | 1985 | Jun-85 | | 571149 |
| UPR-100-N-21 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 3.03E+03 | 1986 | Apr-86 | | 571149 |
| UPR-100-N-22 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 3.79E+03 | 1986 | Jun-86 | | 571149 |
| UPR-100-N-23 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 7.57E+02 | 1987 | Jan-87 | | 571149 |
| UPR-100-N-24 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | | 1987 | Jan-87 | | 571149 |
| UPR-100-N-25 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 1.89E+03 | 1975 | May-75 | | 571149 |
| UPR-100-N-26 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 3.79E+03 | 1978 | Dec-78 | | 571149 |
| UPR-100-N-29 | Liquid | 30.0 | 4.0 | | | 6.37E+01 | | 6.98E+03 | 3.79E+02 | 1984 | Apr-84 | | 571149 |
| UPR-100-N-3 | Liquid | | | 4.0 | | 2.14E+01 | 2.5 | 6.42E+03 | 1.36E+06 | 1978 | Mar-78 | | 571149 |
| UPR-100-N-4 | Liquid | | | | 1.50E+03 | 3.09E+02 | | 1.31E+04 | 5.68E+03 | | May-77 | | 571149 |
| UPR-100-N-5 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 3.41E+05 | 1986 | Jun-72 | | 571149 |
| UPR-100-N-6 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 6.81E+03 | 1985 | Sep-85 | | 571149 |
| UPR-100-N-7 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 1.91E+06 | 1985 | Apr-85 | | 571149 |
| UPR-100-N-8 | Liquid | | | | 2.50E+01 | 2.48E+01 | | 4.33E+03 | 3.79E+02 | 1975 | May-75 | | 571149 |
| UPR-100-N-9 | Liquid | | | | | 8.15E+01 | | 7.87E+03 | 8.33E+03 | 1974 | Oct-74 | | 571149 |
| UPR-200-E-1 | Liquid | | | | | | | | | | | | 573136 |
| UPR-200-E-10 | Solid | | | | | | | | | | May-75 | active | 575135 |
| UPR-200-E-103 | Liquid | | | | | | | | | | Mar-72 | | 573136 |
| UPR-200-E-11 | Solid | | | | | | | | | | 1957 | active | 575135 |
| UPR-200-E-112 | Solid | | | | | | | | | | | | 573136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPR-200-E-12 | Liquid | | | | | | | | | | Dec-57 | | 575136 |
| UPR-200-E-13 | Liquid | | | | | | | | | | Dec-58 | | 575135 |
| UPR-200-E-14 | Liquid | | | | | | | | | | | | 577136 |
| UPR-200-E-140 | Liquid | | | | | | | | 7.60E+00 | | Apr-86 | | 573136 |
| UPR-200-E-141 | Liquid | | | | | | | | 2.08E+02 | | Sep-84 | inactive | 574136 |
| UPR-200-E-15 | Liquid | | | | | | | | | | Jan-59 | | 575135 |
| UPR-200-E-19 | Liquid | | | | | | | | | | 1959 | inactive | 575135 |
| UPR-200-E-2 | Liquid | | | | | | | | | | Nov-47 | | 573136 |
| UPR-200-E-20 | Solid | | | | | | | | | | Nov-59 | | 575135 |
| UPR-200-E-22 | Liquid | | | | | | | | | | 1959 | | 575135 |
| UPR-200-E-25 | Liquid | | | | | | | | | | Sep-60 | | 575135 |
| UPR-200-E-26 | Liquid | | | | | | | | | | Sep-60 | | 575135 |
| UPR-200-E-28 | Liquid | | | | | | | | | | Dec-61 | | 575135 |
| UPR-200-E-3 | Liquid | | | | | | | | | | Nov-51 | | 573136 |
| UPR-200-E-31 | Liquid | | | | | | | | | | Oct-61 | | 575135 |
| UPR-200-E-33 | Solid | | | | | | | | | | Mar-64 | | 575135 |
| UPR-200-E-35 | Liquid | 20.0 | 15.0 | | 3.00E+02 | | 8.0 | | | | Oct-86 | Oct-86 | 574135 |
| UPR-200-E-36 | Solid | 900.0 | 450.0 | | | | | | | | Jul-67 | inactive | 574136 |
| UPR-200-E-37 | Solid | 600.0 | | | | | | | | | Jul-67 | inactive | 574136 |
| UPR-200-E-41 | Liquid | | | | | | | | | | Jul-72 | | 573136 |
| UPR-200-E-44 | Liquid | | | | | | | | | | Aug-72 | | 573136 |
| UPR-200-E-45 | Liquid | 300.0 | 100.0 | | 3.00E+04 | | | | | | Aug-72 | | 573136 |
| UPR-200-E-52 | Liquid | 4.0 | 4.0 | | | | 4.0 | | | | Aug-75 | | 573136 |
| UPR-200-E-54 | Liquid | | | | | | | | | | Jul-77 | | 573136 |
| UPR-200-E-55 | Solid | 100.0 | 100.0 | | | | 1.0 | | | | Apr-79 | | 573136 |
| UPR-200-E-56 | Solid | 100.0 | 100.0 | | | | 10.0 | | | | | | |
| UPR-200-E-61 | Liquid | | | | | | | | | | | | 572137 |
| UPR-200-E-62 | Liquid | | | | | | | | | | | | 575137 |
| UPR-200-E-63 | Liquid | | | | | | | | | | Jun-81 | | 573137 |
| UPR-200-E-64 | Liquid | | | | | | | | | | Oct-84 | | 573136 |
| UPR-200-E-67 | Solid | | | | | | | | | | May-84 | | 575135 |
| UPR-200-E-69 | Liquid | | | | | | | | | | Jun-84 | | 573136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPR-200-E-7 | Liquid | 30.0 | 30.0 | | | | | | 1.89E+04 | | Apr-85 | | 573136 |
| UPR-200-E-80 | Liquid | 500.0 | 100.0 | | | | | | | | Jun-46 | | 573136 |
| UPR-200-E-83 | Solid | | | | | | | | | | May-58 | May-58 | 573134 |
| UPR-200-E-85 | Liquid | 50.0 | 50.0 | | | | 15.0 | | | | Jul-72 | | 573136 |
| UPR-200-E-87 | Liquid | 14.8 | 15.0 | | | 2.60E+02 | | 1.80E+03 | | | 1945 | 1953 | 573136 |
| UPR-200-E-89 | Solid | | | | | | | | | | 1978 | | 573137 |
| UPR-200-E-9 | Liquid | | | | | | | | | | 1955 | | 573137 |
| UPR-200-E-90 | Solid | | | | | | | | | | Sep-80 | | 573136 |
| UPR-200-E-92 | Solid | | | | | | | | | | Sep-80 | | 575137 |
| UPR-200-E-95 | Solid | | | | | | | | | | Sep-80 | | 573137 |
| UPR-200-E-98 | Solid | | | | | | | | | | Sep-80 | inactive | 574136 |
| UPR-200-W-101 | Liquid | 90.0 | 65.0 | | | | 3.0 | | | | | | 567135 |
| UPR-200-W-102 | Liquid | 50.0 | 12.0 | | | | 12.0 | | | | Feb-72 | inactive | 567136 |
| UPR-200-W-103 | Liquid | | | | | | | | | | Apr-71 | inactive | 566135 |
| UPR-200-W-108 | Liquid | | | | | | | | | | Jan-69 | inactive | 567134 |
| UPR-200-W-109 | Liquid | | | | | | | | | | Jan-69 | inactive | 567134 |
| UPR-200-W-11 | Solid | | | | | | | | | | 1952 | inactive | 566135 |
| UPR-200-W-110 | Solid | | | | | | | | | | 4/14/&4/20/71 | inactive | 566135 |
| UPR-200-W-113 | Liquid | | | | | | | | | | mid1950's | inactive | 567136 |
| UPR-200-W-114 | Liquid | | | | | | | | | | 1980 | inactive | 566134 |
| UPR-200-W-116 | Solid | | | | | | | | | | 1968 | inactive | 567134 |
| UPR-200-W-117 | Liquid | | | | | | | | | | | | 567135 |
| UPR-200-W-118 | Liquid | | | | | | | | | | | | 567135 |
| UPR-200-W-123 | Liquid | | | | | | | | 7.31E+04 | | Jan-79 | inactive | 567134 |
| UPR-200-W-127 | Liquid | | | | | | | | | | Feb-80 | | 566134 |
| UPR-200-W-130 | Liquid | | | | | | | | | | Jan-67 | inactive | 566135 |
| UPR-200-W-132 | Liquid | | | | 5.70E+02 | | | | 1.89E+03 | | Jul-56 | inactive | 566135 |
| UPR-200-W-135 | Liquid | | | | | | | | | | Apr-54 | inactive | 567136 |
| UPR-200-W-137 | Liquid | 250.0 | 250.0 | | 6.25E+04 | | | | | | 1953-60 | inactive | 567136 |
| UPR-200-W-14 | Liquid | | | | | | | | | | Oct-52 | inactive | 566136 |
| UPR-200-W-140 | Liquid | | | | | | | | | | 1960 | inactive | 566134 |
| UPR-200-W-141 | Liquid | | | | | | | | | | 1962 | inactive | 566134 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPR-200-W-159 | Liquid | | | | | | | | | | 1985 | inactive | 566135 |
| UPR-200-W-19 | Liquid | | | | 5.00E+01 | | | | | | 1953 | inactive | 567134 |
| UPR-200-W-2 | Liquid | | | | | | | | | | 1947 | inactive | 567136 |
| UPR-200-W-23 | Solid | | | | 3.00E+02 | | | | | | 1953 | inactive | 566135 |
| UPR-200-W-27 | Liquid | | | | | | | | | | Dec-54 | inactive | 567136 |
| UPR-200-W-29 | Liquid | 100.0 | 75.0 | | | | | | 3.79E+03 | | Nov-54 | inactive | 566136 |
| UPR-200-W-3 | Solid | | | | | | | | | | | | 567137 |
| UPR-200-W-30 | Liquid | 90.0 | 20.0 | | 1.80E+03 | | 10.0 | | | | Jul-54 | inactive | 567134 |
| UPR-200-W-32 | Liquid | | | | | | | | | | 1954 | inactive | 567134 |
| UPR-200-W-33 | Liquid | | | | 3.00E+00 | | | | | | | | 567135 |
| UPR-200-W-34 | Liquid | | | | | | | | | | May-55 | inactive | 567134 |
| UPR-200-W-35 | Liquid | | | | | | | | | | Sep-55 | inactive | 567134 |
| UPR-200-W-38 | Liquid | 30.0 | 15.0 | | | | 1.0 | | | | 1956 | inactive | 567136 |
| UPR-200-W-39 | Liquid | 50.0 | 10.0 | | | | 3.0 | | | | | | 567135 |
| UPR-200-W-4 | Solid | | | | | | | | | | | | 567137 |
| UPR-200-W-41 | Solid | | | | | | | | | | Jul-56 | inactive | 567134 |
| UPR-200-W-42 | Solid | | | | | | | | | | Feb-57 | inactive | 567133 |
| UPR-200-W-43 | Solid | | | | 1.20E+03 | | | | | | Feb-57 | inactive | 567134 |
| UPR-200-W-44 | Solid | 25.0 | 20.0 | | | | | | | | | | |
| UPR-200-W-46 | Liquid | | | | | | | | | | Jan-58 | inactive | 566135 |
| UPR-200-W-48 | Liquid | | | | 1.00E+03 | | | | | | | | 567135 |
| UPR-200-W-49 | Liquid | | | | 5.00E+03 | | | | | | Jul-58 | inactive | 567134 |
| UPR-200-W-50 | Liquid | | | | | | | | | | Aug-58 | inactive | 566134 |
| UPR-200-W-52 | Liquid | | | | | | | | | | Sep-58 | inactive | 566133 |
| UPR-200-W-55 | Liquid | | | | | | | | | | | | 567135 |
| UPR-200-W-56 | Liquid | | | | | | | | | | Feb-61 | inactive | 567134 |
| UPR-200-W-58 | Solid | | | | | | | | | | | | 567137 |
| UPR-200-W-60 | Liquid | | | | | | | | | | | | 567135 |
| UPR-200-W-61 | Liquid | | | | 2.00E+02 | | | | | | | | |
| UPR-200-W-63 | Liquid | | | | | | | | | | Sep-66 | inactive | 567136 |
| UPR-200-W-65 | Liquid | | | | | | | | | | | | 567137 |
| UPR-200-W-67 | Solid | 24.0 | 3.0 | | | | | | | | Aug-70 | inactive | 567136 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPR-200-W-68 | Liquid | | | | | | | | | | Feb-72 | inactive | 566134 |
| UPR-200-W-69 | Liquid | | | | | | | | | | Mar-73 | inactive | 567134 |
| UPR-200-W-7 | Liquid | | | | | | | | | | 1950 | inactive | 566136 |
| UPR-200-W-73 | Solid | 1200.0 | 20.0 | | | | 1.0 | | | | Oct-74 | inactive | 567136 |
| UPR-200-W-74 | Liquid | | | | | | | | | | May-76 | inactive | 566135 |
| UPR-200-W-75 | Liquid | 35.0 | 35.0 | | | | 1.0 | | | | Jan-75 | inactive | 566135 |
| UPR-200-W-77 | Solid | | | | | | | | | | | | 568137 |
| UPR-200-W-78 | Liquid | | | | 4.00E+01 | | | | | | Aug-70 | inactive | 567134 |
| UPR-200-W-79 | Liquid | | | | | | | | | | Oct-78 | inactive | 566135 |
| UPR-200-W-8 | Solid | | | | 1.50E+02 | | | | | | 1950 | inactive | 567136 |
| UPR-200-W-82 | Solid | | | | | | | | | | Jan-80 | inactive | 566134 |
| UPR-200-W-83 | Liquid | | | | | | | | | | Nov-81 | inactive | 567134 |
| UPR-200-W-85 | Liquid | | | | | | | | | | Apr-82 | inactive | 566133 |
| UPR-200-W-86 | Solid | | | | | | | | | | | | |
| UPR-200-W-88 | Liquid | | | | | | | | | | May-84 | inactive | 568136 |
| UPR-200-W-89 | Solid | | | | | | | | | | May-85 | inactive | 566135 |
| UPR-200-W-90 | Solid | | | | | | | | | | May-85 | inactive | 566135 |
| UPR-200-W-91 | Solid | | | | | | | | | | Nov-85 | inactive | 566135 |
| UPR-200-W-98 | Liquid | | | | | | | | | | 1945 | inactive | 567136 |
| UPR-200-W-99 | Solid | | | | | | | | | | Sep-68 | inactive | 566136 |
| UPR-300-1 | Liquid | | | | | 1.59E+03 | | 2.99E+05 | | | 1969 | inactive | 594115 |
| UPR-300-10 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | | | 1977 | inactive | 593115 |
| UPR-300-11 | Liquid | 2.0 | 3.0 | | 6.00E+00 | 4.07E+01 | 15.0 | 3.28E+04 | | | 1977 | inactive | 594115 |
| UPR-300-12 | Liquid | 40.0 | 1.0 | | | 5.98E+01 | | 5.33E+03 | 1.51E+04 | | 1979 | inactive | 594115 |
| UPR-300-13 | Liquid | | | | | 9.64E+01 | | | 4.92E+03 | | | | |
| UPR-300-14 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | 4.54E+03 | | Jul-75 | | 594116 |
| UPR-300-17 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | | | Sep-79 | inactive | 593116 |
| UPR-300-18 | Liquid | | | | | 9.64E+01 | | | | | | | |
| UPR-300-2 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | | | 1954 | inactive | 594115 |
| UPR-300-31 | Liquid | | | | | | | | | | Oct-74 | | 594116 |
| UPR-300-39 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | | | 1954 | inactive | 593116 |
| UPR-300-4 | Liquid | 100.0 | 100.0 | | | 9.74E+03 | 20.0 | 3.84E+05 | | | 1945 | 1955 | 593115 |

*Table B2-5. Characteristics of Sites in Scope. (27 sheets)*

| Site Code (WIDS) | Physical State | Length ft | Width ft | Diameter ft | Area sq. ft. | Contam-inated Volume m3 | Depth to Release ft | Over-burden Volume m3 | Volume Stored ml | Decay Date 1/1/90 | Start Date | End Date | Cell Id xxx,yyy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPR-300-40 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | | | 1961 | inactive | 593116 |
| UPR-300-41 | Liquid | | | | | 2.48E+01 | | 3.00E+03 | 1.14E+02 | | 1986 | inactive | 594115 |
| UPR-300-42 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | 1.14E+03 | | 1983 | inactive | 593116 |
| UPR-300-43 | Liquid | | | | | 1.00E+02 | | 9.68E+03 | 2.08E+02 | | 1986 | inactive | 593115 |
| UPR-300-44 | Liquid | | | | | 1.00E+02 | | 9.68E+03 | | | 1985 | inactive | 593116 |
| UPR-300-45 | Liquid | | | | | 1.00E+02 | | 9.68E+03 | 3.79E+01 | | 1985 | inactive | 593116 |
| UPR-300-5 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | | | 1973 | inactive | 594115 |
| UPR-300-7 | Liquid | | | | | 9.64E+01 | | 9.52E+03 | 2.20E+03 | | 1972 | inactive | 593116 |
| UPR-300-FF-1 | | | | | | | | | | | | | |
| UPR-600-12 | Liquid | | | | | | | | | | Dec-54 | inactive | 577134 |
| UPR-600-16 | Liquid | 180.0 | 100.0 | | 1.80E+04 | | 1.0 | | | | Dec-51 | inactive | 582143 |
| UPR-600-18 | Liquid | | | | | | | | 1.34E+03 | | Apr-87 | inactive | 581145 |
| UPR-600-19 | Solid | | | | | | | | | | | inactive | 583141 |
| WBL | Solid | 125.0 | 50.0 | | | 2.30E+03 | 10.0 | | | | 1850 | 1943 | 579149 |
| WBPAC | Liquid | 290.0 | 100.0 | | | | 10.0 | | 3.79E+04 | | 1943 | 1945 | 578149 |
| Z PLANT BP | Solid | 50.0 | 40.0 | | | | 10.0 | | | | 1950 | 1960 | 566135 |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | AgI g | AlFNO3 g | AlNO3 g | Be g | BP g | CaNO3 g | CCl4 g | CdII g | CrVI g | Cu2SO4 g | CuII g | DBBP g | F g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-S-16D | 565133 | | | | | | | | | | | | | |
| 116-B-3 | 565144 | | | | | | | | | | | | | |
| 116-B-4 | 565144 | | | | | | | | | | | | | |
| 116-B-6A | 565144 | | | | | | | | | | | | | |
| 116-B-6B | 565144 | | | | | | | | | | | | | |
| 116-C-2A | 565144 | | | | | | | | | | | | | |
| 116-B-1 | 565145 | | | | | | | | | | | | | |
| 116-C-1 | 565145 | | | | | | | | | | | | | |
| 216-S-17 | 566133 | | | | | | | | | | | | | |
| 216-S-5 | 566133 | | | | | | | | | | | | | |
| 216-S-6 | 566133 | | | | | | | | | | | | | |
| 216-S-1&2 | 566134 | | | 6.00E+07 | | | | | | | | | | |
| 216-S-15 | 566134 | | | | | | | | | | | | | |
| 216-S-21 | 566134 | | | | | | | | | | | | | |
| 216-S-25 | 566134 | | | | | | | | | | | | | |
| 216-S-3 | 566134 | | | | | | | | | | | | | |
| 216-S-4 | 566134 | | | | | | | | | | | | | |
| 216-S-8 | 566134 | | | | | | | | | | | | | |
| 216-U-3 | 566134 | | | | | | | | | | | | | |
| 216-T-19 | 566135 | | | | | | | | | | | | | |
| 216-Z-1&2 | 566135 | | | | | | | | | | | | | 3.00E+07 |
| 216-Z-10 | 566135 | | | | | | | | | | | | | |
| 216-Z-12 | 566135 | | | | | | | | | | | | | 3.00E+08 |
| 216-Z-18 | 566135 | | 2.00E+08 | 1.70E+08 | | | 1.30E+08 | 2.60E+08 | | | | | 1.50E+07 | |
| 216-Z-1A | 566135 | | | | | | | | | | | | | 9.00E+05 |
| 216-Z-3 | 566135 | | | | | | | | | | | | | 1.60E+08 |
| 216-Z-4 | 566135 | | | | | | | | | | | | | |
| 216-Z-5 | 566135 | | | | | | | | | | | | | |
| 216-Z-6 | 566135 | | | | | | | | | | | | | |
| 216-Z-7 | 566135 | | | | | | | | | | | | | |
| 216-Z-8 | 566135 | | | | | | | | | | | | | |
| 216-Z-9 | 566135 | | 2.10E+08 | 1.90E+08 | | | 1.30E+08 | | | | | | | |
| 216-T-1 | 566136 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | FeCN g | FeNO3 g | H2SO4 g | Hg g | HNO3 g | K g | KBO2 g | MgNO3 g | MIBK g | Na g | NaAl g | NaCr2 g | NaOH g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-S-16D | 565133 | | | | | | | | | | | | | |
| 116-B-3 | 565144 | | | | | | | | | | | | 4.00E+00 | |
| 116-B-4 | 565144 | | | | | | | | | | | | 1.00E+06 | |
| 116-B-6A | 565144 | | | | | | | | | | | | 5.00E+04 | |
| 116-B-6B | 565144 | | | | | | | | | | | | 5.00E+04 | |
| 116-C-2A | 565144 | | | | | | | | | | | | 5.00E+05 | |
| 116-B-1 | 565145 | | | | | | | | | | | | 6.00E+04 | |
| 116-C-1 | 565145 | | | | | | | | | | | | 1.00E+05 | |
| 216-S-17 | 566133 | | | | | | | | | | | | | |
| 216-S-5 | 566133 | | | | | | | | | | | | | |
| 216-S-6 | 566133 | | | | | | | | | | | | | |
| 216-S-1&2 | 566134 | | | | | 1.00E+08 | | | | | 1.00E+07 | | | |
| 216-S-15 | 566134 | | | | | | | | | 1.00E+07 | | | | |
| 216-S-21 | 566134 | | | | | | | | | | 1.30E+05 | | | |
| 216-S-25 | 566134 | | | | | | | | | | | | | |
| 216-S-3 | 566134 | | | | | | | | | | 5.00E+03 | 3.00E+03 | 2.00E+03 | 2.00E+03 |
| 216-S-4 | 566134 | | | | | | | | | | | | | |
| 216-S-8 | 566134 | | | | | | | | | | | | | |
| 216-U-3 | 566134 | | | | | | | | | | | | | |
| 216-T-19 | 566135 | | | | | | | | | | 9.00E+07 | | | |
| 216-Z-1&2 | 566135 | | | | | | | | | | 8.00E+07 | | | |
| 216-Z-10 | 566135 | | | | | | | | | | 3.00E+04 | | | |
| 216-Z-12 | 566135 | | | | | | | | | | 6.00E+08 | | | |
| 216-Z-18 | 566135 | | 3.70E+07 | | | 3.70E+07 | | | 1.70E+08 | | 2.00E+08 | | | |
| 216-Z-1A | 566135 | | | | | | | | | | 9.00E+05 | | | |
| 216-Z-3 | 566135 | | | | | | | | | | 4.00E+08 | | | |
| 216-Z-4 | 566135 | | | | | | | | | | | | | |
| 216-Z-5 | 566135 | | | | | | | | | | 1.00E+08 | | | |
| 216-Z-6 | 566135 | | | | | | | | | | 5.00E+04 | | | |
| 216-Z-7 | 566135 | | | | | | | | | | | | | |
| 216-Z-8 | 566135 | | | | | | | | | | | | | 1.00E+06 |
| 216-Z-9 | 566135 | | 4.00E+07 | | | 3.90E+07 | | | 1.80E+08 | | 2.00E+08 | | | |
| 216-T-1 | 566136 | | | | | | | | | | | | | 1.00E+07 |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | NaOxal g | NaSI g | NaSulfam g | NH4CO3 g | NH4NO3 g | NIII g | NO2 g | NO3 g | NPH g | Oxalate g | PbII g | PO4 g | SO4 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-S-16D | 565133 | | | | | | | | 1.00E+04 | | | | | |
| 116-B-3 | 565144 | | | | | | | | | | | | | |
| 116-B-4 | 565144 | 1.00E+06 | | 6.00E+06 | | | | | | | | | | |
| 116-B-6A | 565144 | 1.00E+05 | | 1.00E+05 | | | | | | | | | | |
| 116-B-6B | 565144 | 1.00E+05 | | 1.00E+05 | | | | | | | | | | |
| 116-C-2A | 565144 | 1.00E+06 | | 1.00E+06 | | | | | | | | | | |
| 116-B-1 | 565145 | | | | | | | | | | | | | |
| 116-C-1 | 565145 | | | | | | | | | | | | | |
| 216-S-17 | 566133 | | | | | | | | 1.40E+05 | | | | | |
| 216-S-5 | 566133 | | | | | | | | 1.00E+05 | | | | | |
| 216-S-6 | 566133 | | | | | | | | 1.40E+05 | | | | | |
| 216-S-1&2 | 566134 | | | | | | | | 6.00E+07 | | | | | |
| 216-S-15 | 566134 | | | | | | | | 1.00E+03 | | | | | |
| 216-S-21 | 566134 | | | | | 8.00E+05 | | | | | | | | |
| 216-S-25 | 566134 | | | | | | | | 1.00E+03 | | | | | |
| 216-S-3 | 566134 | | | | | | | | 9.00E+03 | | | | | |
| 216-S-4 | 566134 | | | | | | | | 1.00E+03 | | | | | |
| 216-S-8 | 566134 | | | | | | | | 1.00E+05 | | | | | |
| 216-U-3 | 566134 | | | | | | | | 9.00E+03 | | | | | |
| 216-T-19 | 566135 | | | | | 1.80E+07 | | | 1.50E+08 | | | | 6.00E+07 | 9.00E+06 |
| 216-Z-1&2 | 566135 | | | | | | | | 1.00E+08 | | | | | |
| 216-Z-10 | 566135 | | | | | | | | 1.00E+05 | | | | | |
| 216-Z-12 | 566135 | | | | | | | | 9.00E+08 | | | | | |
| 216-Z-18 | 566135 | | | | | | | | 5.00E+08 | | | | | 1.00E+07 |
| 216-Z-1A | 566135 | | | | | | | | 3.00E+06 | | | | | |
| 216-Z-3 | 566135 | | | | | | | | 6.00E+08 | | | | | |
| 216-Z-4 | 566135 | | | | | | | | 1.00E+04 | | | | | |
| 216-Z-5 | 566135 | | | | | | | | 1.00E+08 | | | | | |
| 216-Z-6 | 566135 | | | | | | | | 1.30E+05 | | | | | |
| 216-Z-7 | 566135 | | | | | | | | 2.00E+07 | | | | | |
| 216-Z-8 | 566135 | | | | | | | | | | | | | |
| 216-Z-9 | 566135 | | | | | | | | 5.00E+08 | | | | | 1.00E+07 |
| 216-T-1 | 566136 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | SulfAcid g | TBP g | TBPPH g | TrIChlor g | U g | ZnII g |
|---|---|---|---|---|---|---|---|
| 216-S-16D | 565133 | | | | | | |
| 116-B-3 | 565144 | | | | | | |
| 116-B-4 | 565144 | | | | | | |
| 116-B-6A | 565144 | | | | | | |
| 116-B-6B | 565144 | | | | | | |
| 116-C-2A | 565144 | | | | | | |
| 116-B-1 | 565145 | | | | | | |
| 116-C-1 | 565145 | | | | | | |
| 216-S-17 | 566133 | | | | | | |
| 216-S-5 | 566133 | | | | | | |
| 216-S-6 | 566133 | | | | | | |
| 216-S-1&2 | 566134 | | | | | | |
| 216-S-15 | 566134 | | | | | | |
| 216-S-21 | 566134 | | | | | | |
| 216-S-25 | 566134 | | | | | | |
| 216-S-3 | 566134 | | | | | | |
| 216-S-4 | 566134 | | | | | | |
| 216-S-8 | 566134 | | | | | | |
| 216-U-3 | 566134 | | | | | | |
| 216-T-19 | 566135 | | | | | | |
| 216-Z-1&2 | 566135 | | | | | | |
| 216-Z-10 | 566135 | | | | | | |
| 216-Z-12 | 566135 | | | | | | |
| 216-Z-18 | 566135 | | 2.20E+07 | | | | |
| 216-Z-1A | 566135 | | | | | | |
| 216-Z-3 | 566135 | | | | | | |
| 216-Z-4 | 566135 | | | | | | |
| 216-Z-5 | 566135 | | | | | | |
| 216-Z-6 | 566135 | | | | | | |
| 216-Z-7 | 566135 | | | | | | |
| 216-Z-8 | 566135 | | | | | | |
| 216-Z-9 | 566135 | | | | | | |
| 216-T-1 | 566136 | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | AgI g | AlFNO3 g | AlNO3 g | Be g | BP g | CaNO3 g | CCl4 g | CdII g | CrVI g | Cu2SO4 g | CuII g | DBBP g | F g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-T-14 | 566136 | | | | | | | | | | | | | 2.50E+06 |
| 216-T-15 | 566136 | | | | | | | | | | | | | 2.50E+06 |
| 216-T-16 | 566136 | | | | | | | | | | | | | 2.50E+06 |
| 216-T-17 | 566136 | | | | | | | | | | | | | 2.00E+06 |
| 216-T-18 | 566136 | | | | | | | | | | | | | 2.50E+06 |
| 216-T-21 | 566136 | | | | | | | | | | | | | 1.20E+06 |
| 216-T-22 | 566136 | | | | | | | | | | | | | 4.00E+06 |
| 216-T-23 | 566136 | | | | | | | | | | | | | 4.00E+06 |
| 216-T-24 | 566136 | | | | | | | | | | | | | 4.00E+06 |
| 216-T-25 | 566136 | | | | | | | | | | | | | 4.00E+07 |
| 216-T-26 | 566136 | | | | | | | | | | | | | 3.00E+07 |
| 216-T-27 | 566136 | | | | | | | | | | | | | |
| 216-T-28 | 566136 | | | | | | | | | | | | | |
| 216-T-32 | 566136 | | | | | | | | | | | | | 1.60E+08 |
| 216-T-36 | 566136 | | | | | | | | | | | | | |
| 216-T-5 | 566136 | | | | | | | | | | | | | 8.00E+06 |
| 216-T-7 | 566136 | | | | | | | | | | | | | 1.70E+08 |
| 216-S-20 | 567133 | | | | | | | | | | | | | |
| 216-S-22 | 567133 | | | | | | | | | | | | | |
| 216-S-26 | 567133 | | | | | | | | | | | | | |
| 216-S-12 | 567134 | | | | | | | | | | | | | |
| 216-S-13 | 567134 | | | | | | | | | | | | | |
| 216-S-23 | 567134 | | | | | | | | | | | | | |
| 216-S-7 | 567134 | | | 4.00E+07 | | | | | | | | | | |
| 216-S-9 | 567134 | | | | | | | | | | | | | |
| 216-U-8 | 567134 | | | | | | | | | | | | | |
| 216-U-1&2 | 567135 | | | | | | | | | | | | | |
| 216-U-15 | 567135 | | | | | | | | | | | | | |
| 216-U-4 | 567135 | | | | | | | | | | | | | |
| 216-U-4A | 567135 | | | | | | | | | | | | | |
| 216-U-4B | 567135 | | | | | | | | | | | | | |
| 216-U-5 | 567135 | | | | | | | | | | | | | |
| 216-U-6 | 567135 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | FeCN g | FeNO3 g | H2SO4 g | Hg g | HNO3 g | K g | KBO2 g | MgNO3 g | MIBK g | Na g | NaAl g | NaCr2 g | NaOH g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-T-14 | 566136 | | | | | | | | | | 6.00E+07 | 8.00E+06 | | 8.00E+06 |
| 216-T-15 | 566136 | | | | | | | | | | 6.00E+07 | 8.00E+06 | | 8.00E+06 |
| 216-T-16 | 566136 | | | | | | | | | | 6.00E+07 | 8.00E+06 | | 8.00E+06 |
| 216-T-17 | 566136 | | | | | | | | | | 5.00E+07 | 7.00E+06 | | 6.00E+06 |
| 216-T-18 | 566136 | | | | | | | | | | 6.00E+07 | 8.00E+06 | | 8.00E+06 |
| 216-T-21 | 566136 | | | | | | | | | | 2.80E+07 | 4.00E+06 | | 4.00E+06 |
| 216-T-22 | 566136 | | | | | | | | | | 9.00E+07 | 1.30E+07 | | 1.20E+07 |
| 216-T-23 | 566136 | | | | | | | | | | 9.00E+07 | 1.20E+07 | | 1.20E+07 |
| 216-T-24 | 566136 | | | | | | | | | | 9.00E+07 | 1.30E+07 | | 1.20E+07 |
| 216-T-25 | 566136 | | | | | | | | | | 9.00E+08 | 1.30E+08 | | 1.20E+08 |
| 216-T-26 | 566136 | 6.00E+06 | | | | | | | | | 7.00E+08 | 1.00E+08 | | 1.00E+08 |
| 216-T-27 | 566136 | | | | | | | | | | | | | |
| 216-T-28 | 566136 | | | | | | | | | | | | | |
| 216-T-32 | 566136 | | | | | | | | | | 1.10E+09 | | | |
| 216-T-36 | 566136 | | | | | | | | | | | | | 1.00E+06 |
| 216-T-5 | 566136 | | | | | | | | | | 1.00E+08 | | | |
| 216-T-7 | 566136 | | | | | | 2.50E+08 | | | | 1.70E+09 | | | |
| 216-S-20 | 567133 | | | | | | | | | | | | | |
| 216-S-22 | 567133 | | | | | | | | | | 3.00E+06 | | | |
| 216-S-26 | 567133 | | | | | | | | | | | | | |
| 216-S-12 | 567134 | | | | | | | | | | | | | |
| 216-S-13 | 567134 | | | | | | | | | 1.00E+07 | 1.00E+06 | | 1.00E+07 | |
| 216-S-23 | 567134 | | | | | 3.00E+05 | | | | | | | | |
| 216-S-7 | 567134 | | | | | 2.50E+08 | | | | | 7.00E+06 | | | |
| 216-S-9 | 567134 | | | | | 3.00E+07 | | | | | | | | |
| 216-U-8 | 567134 | | | | | 2.00E+08 | | | | | | | | |
| 216-U-1&2 | 567135 | | | | | | | | | | 5.00E+08 | | | |
| 216-U-15 | 567135 | | | | | | | | | | | | | |
| 216-U-4 | 567135 | | | | | | | | | | | | | |
| 216-U-4A | 567135 | | | | | | | | | | 4.00E+05 | | | |
| 216-U-4B | 567135 | | | | | | | | | | | | | |
| 216-U-5 | 567135 | | | | | | | | | | | | | |
| 216-U-6 | 567135 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | NaOxal g | NaSI g | NaSulfam g | NH4CO3 g | NH4NO3 g | NIII g | NO2 g | NO3 g | NPH g | Oxalate g | PbII g | PO4 g | SO4 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-T-14 | 566136 | | 3.20E+06 | | | | | 9.00E+06 | 8.00E+07 | | | | 1.90E+07 | 4.00E+06 |
| 216-T-15 | 566136 | | 3.20E+06 | | | | | 9.00E+06 | 8.00E+07 | | | | 1.90E+07 | 4.00E+06 |
| 216-T-16 | 566136 | | 3.20E+06 | | | | | 9.00E+06 | 8.00E+07 | | | | 1.90E+07 | 4.00E+06 |
| 216-T-17 | 566136 | | 2.50E+06 | | | | | 7.00E+06 | 6.00E+07 | | | | 1.50E+07 | 3.10E+06 |
| 216-T-18 | 566136 | | 3.20E+06 | | | | | 9.00E+06 | 8.00E+07 | | | | 1.90E+07 | 4.00E+06 |
| 216-T-21 | 566136 | | 1.50E+06 | | | | | 4.00E+06 | 4.00E+07 | | | | 9.00E+06 | 1.80E+06 |
| 216-T-22 | 566136 | | 5.00E+06 | | | | | 1.40E+07 | 1.20E+08 | | | | 2.90E+07 | 6.00E+06 |
| 216-T-23 | 566136 | | 5.00E+06 | | | | | 1.40E+07 | 1.20E+08 | | | | 2.80E+07 | 6.00E+06 |
| 216-T-24 | 566136 | | 5.00E+06 | | | | | 1.40E+07 | 1.20E+08 | | | | 2.90E+07 | 6.00E+06 |
| 216-T-25 | 566136 | | 5.00E+07 | | | | | 1.40E+08 | 1.20E+09 | | | | 2.90E+08 | 6.00E+07 |
| 216-T-26 | 566136 | | 4.00E+07 | | | | | 1.10E+08 | 1.00E+09 | | | | 2.30E+08 | 5.00E+07 |
| 216-T-27 | 566136 | | | | | | | | 1.00E+06 | | | | | |
| 216-T-28 | 566136 | | | | | | | | 1.00E+07 | | | | | |
| 216-T-32 | 566136 | 4.00E+07 | | | | 1.60E+07 | | | 1.20E+09 | | | | 9.00E+07 | 1.00E+07 |
| 216-T-36 | 566136 | | | | | | | | | | | | | |
| 216-T-5 | 566136 | | 8.00E+06 | | | 2.00E+07 | | | 1.40E+08 | | | | 6.00E+07 | 9.00E+06 |
| 216-T-7 | 566136 | 4.00E+07 | | | | 1.40E+08 | | | 2.30E+09 | | | | 5.00E+08 | 7.00E+07 |
| 216-S-20 | 567133 | | | | | | | | 2.00E+07 | | | | | |
| 216-S-22 | 567133 | | | | | | | | 7.00E+06 | | | | | |
| 216-S-26 | 567133 | | | | | | | | 3.00E+04 | | | | | |
| 216-S-12 | 567134 | | | | | 6.00E+05 | | | | | | | | |
| 216-S-13 | 567134 | | | | | | | | 1.00E+07 | | | | | |
| 216-S-23 | 567134 | | | | | | | | | | | | | |
| 216-S-7 | 567134 | | | | | | | | 1.10E+08 | | | | | |
| 216-S-9 | 567134 | | | | | | | | | | | | | |
| 216-U-8 | 567134 | | | | | | | | | | | | | |
| 216-U-1&2 | 567135 | | | | | | | | 1.20E+09 | | | | 7.00E+07 | 1.00E+08 |
| 216-U-15 | 567135 | | | | | | | | | 4.00E+07 | | | | |
| 216-U-4 | 567135 | | | | | | | | 4.00E+05 | | | | | |
| 216-U-4A | 567135 | | | | | | | | 9.00E+05 | | | | 3.00E+04 | |
| 216-U-4B | 567135 | | | | | | | | 1.00E+04 | | | | | |
| 216-U-5 | 567135 | | | | | | | | 2.00E+05 | | | | | |
| 216-U-6 | 567135 | | | | | | | | 2.00E+05 | | | | | |

| Site Code (WIDS) | Cell Id xxx,yyy | SulfAcid g | TBP g | TBPPH g | TrIChlor g | U g | ZnII g |
|---|---|---|---|---|---|---|---|
| 216-T-14 | 566136 | | | | | | |
| 216-T-15 | 566136 | | | | | | |
| 216-T-16 | 566136 | | | | | | |
| 216-T-17 | 566136 | | | | | | |
| 216-T-18 | 566136 | | | | | | |
| 216-T-21 | 566136 | | | | | | |
| 216-T-22 | 566136 | | | | | | |
| 216-T-23 | 566136 | | | | | | |
| 216-T-24 | 566136 | | | | | | |
| 216-T-25 | 566136 | | | | | | |
| 216-T-26 | 566136 | | | | | | |
| 216-T-27 | 566136 | | | | | | |
| 216-T-28 | 566136 | | | | | | |
| 216-T-32 | 566136 | | | | | | |
| 216-T-36 | 566136 | | | | | | |
| 216-T-5 | 566136 | | | | | | |
| 216-T-7 | 566136 | | | | | | |
| 216-S-20 | 567133 | | | | | | |
| 216-S-22 | 567133 | | | | | | |
| 216-S-26 | 567133 | | | | | | |
| 216-S-12 | 567134 | | | | | | |
| 216-S-13 | 567134 | | | | | | |
| 216-S-23 | 567134 | | | | | | |
| 216-S-7 | 567134 | | | | | | |
| 216-S-9 | 567134 | | | | | | |
| 216-U-8 | 567134 | | | | | | |
| 216-U-1&2 | 567135 | | | | | | |
| 216-U-15 | 567135 | | 1.30E+07 | | | | |
| 216-U-4 | 567135 | | | | | | |
| 216-U-4A | 567135 | | | | | | |
| 216-U-4B | 567135 | | | | | | |
| 216-U-5 | 567135 | | | | | | |
| 216-U-6 | 567135 | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | AgI g | AlFNO3 g | AlNO3 g | Be g | BP g | CaNO3 g | CCl4 g | CdII g | CrVI g | Cu2SO4 g | CuII g | DBBP g | F g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-U-7 | 567135 | | | | | | | | | | | | | |
| 216-T-2 | 567136 | | | | | | | | | | | | | |
| 216-T-20 | 567136 | | | | | | | | | | | | | |
| 216-T-29 | 567136 | | | | | | | | | | | | | |
| 216-T-3 | 567136 | | | | | | | | | | | | | 4.00E+07 |
| 216-T-33 | 567136 | | | | | | | | | | | | | |
| 216-T-6 | 567136 | | | | | | | | | | | | | 2.40E+07 |
| 216-T-8 | 567136 | | | | | | | | | | | | | |
| 216-T-34 | 567137 | | | | | | | | | | | | | |
| 216-T-35 | 567137 | | | | | | | | | | | | | |
| 116-KE-2 | 569146 | | | | | | | | | | | | | |
| 120-KE-1 | 569146 | | | | | | | | | | | | | |
| 120-KE-3 | 569146 | | | | | | | | | | | | | |
| 116-K-1 | 569147 | | | | | | | | | | | | | |
| 116-K-2 | 569147 | | | | | | | | | | 5.00E+05 | | | |
| 216-B-14 | 573134 | | | | | | | | | | | | | |
| 216-B-15 | 573134 | | | | | | | | | | | | | |
| 216-B-16 | 573134 | | | | | | | | | | | | | |
| 216-B-17 | 573134 | | | | | | | | | | | | | |
| 216-B-18 | 573134 | | | | | | | | | | | | | |
| 216-B-19 | 573134 | | | | | | | | | | | | | |
| 216-B-20 | 573134 | | | | | | | | | | | | | |
| 216-B-21 | 573134 | | | | | | | | | | | | | |
| 216-B-22 | 573134 | | | | | | | | | | | | | |
| 216-B-23 | 573134 | | | | | | | | | | | | | |
| 216-B-24 | 573134 | | | | | | | | | | | | | |
| 216-B-25 | 573134 | | | | | | | | | | | | | |
| 216-B-26 | 573134 | | | | | | | | | | | | | |
| 216-B-27 | 573134 | | | | | | | | | | | | | |
| 216-B-28 | 573134 | | | | | | | | | | | | | |
| 216-B-29 | 573134 | | | | | | | | | | | | | |
| 216-B-30 | 573134 | | | | | | | | | | | | | |
| 216-B-31 | 573134 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | FeCN g | FeNO3 g | H2SO4 g | Hg g | HNO3 g | K g | KBO2 g | MgNO3 g | MIBK g | Na g | NaAl g | NaCr2 g | NaOH g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-U-7 | 567135 | | | | | | | | | | | | | |
| 216-T-2 | 567136 | | | 1.00E+07 | | 6.00E+06 | | | | | | | 2.00E+05 | |
| 216-T-20 | 567136 | | | | | | | | | | | | | |
| 216-T-29 | 567136 | | | | | 8.00E+06 | | | | | | | | |
| 216-T-3 | 567136 | | | | | | 6.00E+07 | | | | 2.50E+08 | | | |
| 216-T-33 | 567136 | | | | | | | | | | | | | 1.00E+04 |
| 216-T-6 | 567136 | | | | | | | | | | 1.60E+08 | | | |
| 216-T-8 | 567136 | | | 1.00E+06 | | 1.00E+06 | | | | | | | 1.00E+04 | |
| 216-T-34 | 567137 | | | | | | | | | | | | | |
| 216-T-35 | 567137 | | | | | | | | | | | | | |
| 116-KE-2 | 569146 | | | | | | | | | | | | | 1.00E+08 |
| 120-KE-1 | 569146 | | | | 2.00E+05 | | | | | | | | | |
| 120-KE-3 | 569146 | | | | 7.00E+05 | | | | | | | | | |
| 116-K-1 | 569147 | | | | | | | | | | | | 4.00E+04 | |
| 116-K-2 | 569147 | | | 1.00E+07 | | | | | | | | | 3.00E+08 | |
| 216-B-14 | 573134 | 5.00E+06 | | | | | | | | | 6.00E+08 | | | |
| 216-B-15 | 573134 | 3.30E+06 | | | | | | | | | 4.00E+08 | | | |
| 216-B-16 | 573134 | 3.00E+06 | | | | | | | | | 5.00E+08 | | | |
| 216-B-17 | 573134 | 1.80E+06 | | | | | | | | | 5.00E+08 | | | |
| 216-B-18 | 573134 | 5.00E+06 | | | | | | | | | 4.00E+08 | | | |
| 216-B-19 | 573134 | 3.40E+06 | | | | | | | | | 7.00E+08 | | | |
| 216-B-20 | 573134 | 2.50E+06 | | | | | | | | | 5.00E+08 | | | |
| 216-B-21 | 573134 | 2.50E+06 | | | | | | | | | 3.10E+08 | | | |
| 216-B-22 | 573134 | 2.50E+06 | | | | | | | | | 4.00E+08 | | | |
| 216-B-23 | 573134 | 2.40E+06 | | | | | | | | | 4.00E+08 | | | |
| 216-B-24 | 573134 | 2.50E+06 | | | | | | | | | 2.80E+08 | | | |
| 216-B-25 | 573134 | 2.00E+06 | | | | | | | | | 2.20E+08 | | | |
| 216-B-26 | 573134 | 3.10E+06 | | | | | | | | | 3.50E+08 | | | |
| 216-B-27 | 573134 | 2.30E+06 | | | | | | | | | 2.60E+08 | | | |
| 216-B-28 | 573134 | 2.70E+06 | | | | | | | | | 4.00E+08 | | | |
| 216-B-29 | 573134 | 2.60E+06 | | | | | | | | | 2.80E+08 | | | |
| 216-B-30 | 573134 | 2.50E+06 | | | | | | | | | 5.00E+08 | | | |
| 216-B-31 | 573134 | 2.50E+06 | | | | | | | | | 5.00E+08 | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | NaOxal g | NaSI g | NaSulfam g | NH4CO3 g | NH4NO3 g | NIII g | NO2 g | NO3 g | NPH g | Oxalate g | PbII g | PO4 g | SO4 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-U-7 | 567135 | | | | | | | | 7.00E+04 | | | | | |
| 216-T-2 | 567136 | | | | | | | | | | | | | |
| 216-T-20 | 567136 | | | | | | | | 1.50E+07 | | | | | |
| 216-T-29 | 567136 | | | | | | | | | | | | | |
| 216-T-3 | 567136 | 9.00E+06 | | | | 4.00E+06 | | | 2.90E+08 | | | | 2.10E+07 | 2.40E+06 |
| 216-T-33 | 567136 | | | | | | | | | | | | | |
| 216-T-6 | 567136 | 6.00E+06 | | | | 2.60E+06 | | | 1.80E+08 | | | | 1.30E+07 | 1.50E+06 |
| 216-T-8 | 567136 | | | | | | | | | | | | | |
| 216-T-34 | 567137 | | | | | | | | 1.00E+06 | | | | | |
| 216-T-35 | 567137 | | | | | | | | 1.00E+06 | | | | | |
| 116-KE-2 | 569146 | | | | | | | | | | | | | |
| 120-KE-1 | 569146 | | | | | | | | | | | | | |
| 120-KE-3 | 569146 | | | | | | | | | | | | | |
| 116-K-1 | 569147 | | | | | | | | | | | | | |
| 116-K-2 | 569147 | | | | | | | | | | | | | |
| 216-B-14 | 573134 | | | | | | | | 1.50E+09 | | | | 4.00E+07 | 5.00E+07 |
| 216-B-15 | 573134 | | | | | | | | 9.00E+08 | | | | 5.00E+07 | 6.00E+07 |
| 216-B-16 | 573134 | | | | | | | | 1.10E+09 | | | | 7.00E+07 | 1.10E+08 |
| 216-B-17 | 573134 | | | | | | | | 1.10E+09 | | | | 6.00E+07 | 9.00E+07 |
| 216-B-18 | 573134 | | | | | | | | 1.00E+09 | | | | 5.00E+07 | 7.00E+07 |
| 216-B-19 | 573134 | | | | | | | | 1.50E+09 | | | | 1.00E+08 | 9.00E+07 |
| 216-B-20 | 573134 | | | | | | | | 1.10E+09 | | | | 8.00E+07 | 1.00E+08 |
| 216-B-21 | 573134 | | | | | | | | 7.00E+08 | | | | 4.00E+07 | 6.00E+07 |
| 216-B-22 | 573134 | | | | | | | | 9.00E+08 | | | | 4.00E+07 | 8.00E+07 |
| 216-B-23 | 573134 | | | | | | | | 1.00E+09 | | | | 6.00E+07 | 6.00E+07 |
| 216-B-24 | 573134 | | | | | | | | 6.00E+08 | | | | 3.40E+07 | 5.00E+07 |
| 216-B-25 | 573134 | | | | | | | | 5.00E+08 | | | | 2.70E+07 | 4.00E+07 |
| 216-B-26 | 573134 | | | | | | | | 8.00E+08 | | | | 4.00E+07 | 6.00E+07 |
| 216-B-27 | 573134 | | | | | | | | 6.00E+08 | | | | 3.20E+07 | 5.00E+07 |
| 216-B-28 | 573134 | | | | | | | | 1.00E+09 | | | | 5.00E+07 | 8.00E+07 |
| 216-B-29 | 573134 | | | | | | | | 7.00E+08 | | | | 3.50E+07 | 5.00E+07 |
| 216-B-30 | 573134 | | | | | | | | 1.10E+09 | | | | 7.00E+07 | 1.10E+08 |
| 216-B-31 | 573134 | | | | | | | | 1.10E+09 | | | | 6.00E+07 | 9.00E+07 |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | SulfAcid g | TBP g | TBPPH g | TrChlor g | U g | ZnII g |
|---|---|---|---|---|---|---|---|
| 216-U-7 | 567135 | | | | | | |
| 216-T-2 | 567136 | | | | | | |
| 216-T-20 | 567136 | | | | | | |
| 216-T-29 | 567136 | | | | | | |
| 216-T-3 | 567136 | | | | | | |
| 216-T-33 | 567136 | | | | | | |
| 216-T-6 | 567136 | | | | | | |
| 216-T-8 | 567136 | | | | | | |
| 216-T-34 | 567137 | | | | | | |
| 216-T-35 | 567137 | | | | | | |
| 116-KE-2 | 569146 | | | | | | |
| 120-KE-1 | 569146 | | | | | | |
| 120-KE-3 | 569146 | | | | | | |
| 116-K-1 | 569147 | | | | | | |
| 116-K-2 | 569147 | 1.00E+07 | | | | | |
| 216-B-14 | 573134 | | | | | | |
| 216-B-15 | 573134 | | | | | | |
| 216-B-16 | 573134 | | | | | | |
| 216-B-17 | 573134 | | | | | | |
| 216-B-18 | 573134 | | | | | | |
| 216-B-19 | 573134 | | | | | | |
| 216-B-20 | 573134 | | | | | | |
| 216-B-21 | 573134 | | | | | | |
| 216-B-22 | 573134 | | | | | | |
| 216-B-23 | 573134 | | | | | | |
| 216-B-24 | 573134 | | | | | | |
| 216-B-25 | 573134 | | | | | | |
| 216-B-26 | 573134 | | | | | | |
| 216-B-27 | 573134 | | | | | | |
| 216-B-28 | 573134 | | | | | | |
| 216-B-29 | 573134 | | | | | | |
| 216-B-30 | 573134 | | | | | | |
| 216-B-31 | 573134 | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | AgI g | AlFNO3 g | AlNO3 g | Be g | BP g | CaNO3 g | CCl4 g | CdII g | CrVI g | Cu2SO4 g | CuII g | DBBP g | F g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-32 | 573134 | | | | | | | | | | | | | |
| 216-B-33 | 573134 | | | | | | | | | | | | | |
| 216-B-34 | 573134 | | | | | | | | | | | | | |
| 216-B-52 | 573134 | | | | | | | | | | | | | |
| 216-B-53B | 573134 | | | | | | | | | | | | | |
| 216-B-54 | 573134 | | | | | | | | | | | | | |
| 216-B-58 | 573134 | | | | | | | | | | | | | |
| 216-B-10A | 573136 | | | | | | | | | | | | | |
| 216-B-10B | 573136 | | | | | | | | | | | | | |
| 216-B-12 | 573136 | | | | | | | | | | | | | |
| 216-B-13 | 573136 | | | | | | | | | | | | | |
| 216-B-5 | 573136 | | | 5.00E+06 | | | | | | | | | | 5.00E+07 |
| 216-B-55 | 573136 | | | | | | | | | | | | | |
| 216-B-6 | 573136 | | | | | | | | | | | | | |
| 216-B-9 | 573136 | | | | | | | | | | | | | |
| 216-B-35 | 573137 | | | | | | | | | | | | | 2.60E+06 |
| 216-B-36 | 573137 | | | | | | | | | | | | | 5.00E+06 |
| 216-B-37 | 573137 | | | | | | | | | | | | | 5.00E+07 |
| 216-B-38 | 573137 | | | | | | | | | | | | | 4.00E+06 |
| 216-B-39 | 573137 | | | | | | | | | | | | | 4.00E+06 |
| 216-B-40 | 573137 | | | | | | | | | | | | | 4.00E+06 |
| 216-B-41 | 573137 | | | | | | | | | | | | | 4.00E+06 |
| 216-B-42 | 573137 | | | | | | | | | | | | | |
| 216-B-43 | 573137 | | | | | | | | | | | | | |
| 216-B-44 | 573137 | | | | | | | | | | | | | |
| 216-B-45 | 573137 | | | | | | | | | | | | | |
| 216-B-46 | 573137 | | | | | | | | | | | | | |
| 216-B-47 | 573137 | | | | | | | | | | | | | |
| 216-B-48 | 573137 | | | | | | | | | | | | | |
| 216-B-49 | 573137 | | | | | | | | | | | | | |
| 216-B-50 | 573137 | | | | | | | | | | | | | |
| 216-B-51 | 573137 | | | | | | | | | | | | | |
| 216-B-57 | 573137 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | FeCN g | FeNO3 g | H2SO4 g | Hg g | HNO3 g | K g | KBO2 g | MgNO3 g | MIBK g | Na g | NaAl g | NaCr2 g | NaOH g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-32 | 573134 | 2.50E+06 | | | | | | | | | 5.00E+08 | | | |
| 216-B-33 | 573134 | 2.50E+06 | | | | | | | | | 7.00E+08 | | | |
| 216-B-34 | 573134 | 2.60E+06 | | | | | | | | | 8.00E+08 | | | |
| 216-B-52 | 573134 | 5.00E+06 | | | | | | | | | 8.60E+08 | | | |
| 216-B-53B | 573134 | | | | | | | | | | | | | |
| 216-B-54 | 573134 | | | | | | | | | | | | | |
| 216-B-58 | 573134 | | | | | | | | | | | | | |
| 216-B-10A | 573136 | | | | | 1.00E+06 | | | | | | | 1.00E+05 | |
| 216-B-10B | 573136 | | | | | 2.00E+03 | | | | | | | | |
| 216-B-12 | 573136 | | | | | | | | | | | | | |
| 216-B-13 | 573136 | | | | | | | | | | | | | |
| 216-B-5 | 573136 | | | | | | 8.00E+07 | | | | 3.50E+08 | | | |
| 216-B-55 | 573136 | | | | | | | | | | | | | |
| 216-B-6 | 573136 | | | 1.00E+07 | | 1.00E+07 | | | | | | | 1.00E+05 | |
| 216-B-9 | 573136 | | | | | | | | | | | | | |
| 216-B-35 | 573137 | | | | | | | | | | 6.00E+07 | 1.00E+07 | | 2.00E+07 |
| 216-B-36 | 573137 | | | | | | | | | | 1.20E+08 | 2.40E+07 | | 3.80E+06 |
| 216-B-37 | 573137 | | | | | | | | | | 1.30E+09 | 2.50E+08 | | 3.80E+07 |
| 216-B-38 | 573137 | | | | | | | | | | 9.00E+07 | 1.80E+07 | | 2.80E+06 |
| 216-B-39 | 573137 | | | | | | | | | | 9.00E+07 | 1.80E+07 | | 2.80E+06 |
| 216-B-40 | 573137 | | | | | | | | | | 1.00E+08 | 2.00E+07 | | 3.30E+06 |
| 216-B-41 | 573137 | | | | | | | | | | 9.00E+07 | 1.80E+07 | | 2.80E+06 |
| 216-B-42 | 573137 | 8.00E+05 | | | | | | | | | 9.00E+07 | | | |
| 216-B-43 | 573137 | 1.10E+06 | | | | | | | | | 1.70E+08 | | | |
| 216-B-44 | 573137 | 3.00E+06 | | | | | | | | | 3.30E+08 | | | |
| 216-B-45 | 573137 | 2.60E+06 | | | | | | | | | 3.40E+08 | | | |
| 216-B-46 | 573137 | 4.00E+06 | | | | | | | | | 5.00E+08 | | | |
| 216-B-47 | 573137 | 2.00E+06 | | | | | | | | | 3.10E+08 | | | |
| 216-B-48 | 573137 | 2.20E+06 | | | | | | | | | 4.00E+08 | | | |
| 216-B-49 | 573137 | 4.00E+06 | | | | | | | | | 6.00E+08 | | | |
| 216-B-50 | 573137 | | | | | | | | | | 5.00E+05 | | | |
| 216-B-51 | 573137 | | | | | | | | | | 8.00E+04 | | | |
| 216-B-57 | 573137 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | NaOxal g | NaSI g | NaSulfam g | NH4CO3 g | NH4NO3 g | NIII g | NO2 g | NO3 g | NPH g | Oxalate g | PbII g | PO4 g | SO4 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-32 | 573134 | | | | | | | | 1.00E+09 | | | | 6.00E+07 | 9.00E+07 |
| 216-B-33 | 573134 | | | | | | | | 1.70E+09 | | | | 1.00E+08 | 1.10E+08 |
| 216-B-34 | 573134 | | | | | | | | 1.90E+09 | | | | 8.00E+07 | 9.00E+07 |
| 216-B-52 | 573134 | 1.00E+06 | | | | | | | 2.10E+09 | | | | 8.00E+07 | 8.00E+07 |
| 216-B-53B | 573134 | | | | | | | | 1.00E+03 | | | | | |
| 216-B-54 | 573134 | | | | | | | | 1.00E+05 | | | | | |
| 216-B-58 | 573134 | | | | | | | | 1.00E+04 | | | | | |
| 216-B-10A | 573136 | | | | | | | | 1.00E+06 | | | | | 1.00E+06 |
| 216-B-10B | 573136 | | | | | | | | | | | | | |
| 216-B-12 | 573136 | | | | | 1.80E+09 | | | | | | | | |
| 216-B-13 | 573136 | | | | | | | | 2.00E+06 | | | | | |
| 216-B-5 | 573136 | | | | | | | | 4.00E+08 | | 1.20E+07 | | 2.90E+07 | 3.30E+06 |
| 216-B-55 | 573136 | | | | | 9.00E+07 | | | | | | | | |
| 216-B-6 | 573136 | | | | | | | | | | | | | |
| 216-B-9 | 573136 | | | | | | | | 1.00E+06 | | | | | |
| 216-B-35 | 573137 | | 5.50E+06 | | | | | 1.00E+07 | 9.00E+07 | | | | 2.00E+07 | 4.00E+06 |
| 216-B-36 | 573137 | | 1.00E+07 | | | | | 1.80E+07 | 1.60E+08 | | | | 4.00E+07 | 8.00E+06 |
| 216-B-37 | 573137 | | 1.00E+08 | | | | | 2.00E+08 | 1.70E+09 | | | | 4.00E+08 | 9.00E+07 |
| 216-B-38 | 573137 | | 8.00E+06 | | | | | 1.30E+07 | 1.20E+08 | | | | 2.70E+07 | 6.00E+06 |
| 216-B-39 | 573137 | | 8.00E+06 | | | | | 1.40E+07 | 1.20E+08 | | | | 2.90E+07 | 6.00E+06 |
| 216-B-40 | 573137 | | 8.00E+06 | | | | | 1.50E+07 | 1.30E+08 | | | | 3.10E+07 | 7.00E+06 |
| 216-B-41 | 573137 | | 8.00E+06 | | | | | 1.30E+07 | 1.20E+08 | | | | 2.70E+07 | 6.00E+06 |
| 216-B-42 | 573137 | | | | | | | | 2.10E+08 | | | | 1.10E+07 | 1.50E+07 |
| 216-B-43 | 573137 | | | | | | | | 4.00E+08 | | | | 2.10E+07 | 2.90E+07 |
| 216-B-44 | 573137 | | | | | | | | 8.00E+08 | | | | 4.00E+07 | 6.00E+07 |
| 216-B-45 | 573137 | | | | | | | | 9.00E+07 | | | | 4.10E+07 | 6.00E+07 |
| 216-B-46 | 573137 | | | | | | | | 1.20E+09 | | | | 7.00E+07 | 1.00E+08 |
| 216-B-47 | 573137 | | | | | | | | 7.00E+08 | | | | 4.00E+07 | 6.00E+07 |
| 216-B-48 | 573137 | | | | | | | | 1.00E+09 | | | | 6.00E+07 | 8.00E+07 |
| 216-B-49 | 573137 | | | | | | | | 1.50E+09 | | | | 6.00E+07 | 8.00E+07 |
| 216-B-50 | 573137 | | | | 9.10E+06 | 1.00E+07 | | | 1.50E+06 | | | | | |
| 216-B-51 | 573137 | | | | | | | | 1.90E+05 | | | | 8.00E+03 | 1.10E+04 |
| 216-B-57 | 573137 | | | | 1.20E+07 | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | SulfAcid g | TBP g | TBPPH g | TriChlor g | U g | ZnII g |
|---|---|---|---|---|---|---|---|
| 216-B-32 | 573134 | | | | | | |
| 216-B-33 | 573134 | | | | | | |
| 216-B-34 | 573134 | | | | | | |
| 216-B-52 | 573134 | | | | | | |
| 216-B-53B | 573134 | | | | | | |
| 216-B-54 | 573134 | | | | | | |
| 216-B-58 | 573134 | | | | | | |
| 216-B-10A | 573136 | | | | | | |
| 216-B-10B | 573136 | | | | | | |
| 216-B-12 | 573136 | | | | | | |
| 216-B-13 | 573136 | | | | | | |
| 216-B-5 | 573136 | | | | | | |
| 216-B-55 | 573136 | | | | | | |
| 216-B-6 | 573136 | | | | | | |
| 216-B-9 | 573136 | | | | | | |
| 216-B-35 | 573137 | | | | | | |
| 216-B-36 | 573137 | | | | | | |
| 216-B-37 | 573137 | | | | | | |
| 216-B-38 | 573137 | | | | | | |
| 216-B-39 | 573137 | | | | | | |
| 216-B-40 | 573137 | | | | | | |
| 216-B-41 | 573137 | | | | | | |
| 216-B-42 | 573137 | | | | | | |
| 216-B-43 | 573137 | | | | | | |
| 216-B-44 | 573137 | | | | | | |
| 216-B-45 | 573137 | | | | | | |
| 216-B-46 | 573137 | | | | | | |
| 216-B-47 | 573137 | | | | | | |
| 216-B-48 | 573137 | | | | | | |
| 216-B-49 | 573137 | | | | | | |
| 216-B-50 | 573137 | | | | | | |
| 216-B-51 | 573137 | | | | | | |
| 216-B-57 | 573137 | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | AgI g | AlFNO3 g | AlNO3 g | Be g | BP g | CaNO3 g | CCl4 g | CdII g | CrVI g | Cu2SO4 g | CuII g | DBBP g | F g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-7A&B | 573137 | | | | | | | | | | | | | 2.40E+08 |
| 216-B-8 | 573137 | | | | | | | | | | | | | 2.50E+07 |
| 116-D-1A | 573151 | | | | | | | | | | | | | |
| 116-D-1B | 573151 | | | | | | | | | | | | | |
| 116-D-2 | 573151 | | | | | | | | | | | | | |
| 116-DR-4 | 573151 | | | | | | | | | | | | | |
| 116-DR-6 | 573151 | | | | | | | | | | | | | |
| 116-DR-7 | 573151 | | | | | | | | | | | | | |
| 116-DR-1 | 573152 | | | | | | | | | | | | | |
| 216-A-13 | 574135 | | | | | | | | | | | | | |
| 216-A-22 | 574135 | | | | | | | | | | | | | |
| 216-A-28 | 574135 | | | | | | | | | | | | | |
| 216-A-35 | 574135 | | | | | | | | | | | | | |
| 216-C-1 | 574136 | | | | | | | | | | | | | |
| 216-C-3 | 574136 | | | | | | | | | | | | | |
| 216-C-4 | 574136 | | | | | | | | | | | | | |
| 216-C-5 | 574136 | | | | | | | | | | | | | |
| 216-C-6 | 574136 | | | | | | | | | | | | | |
| 216-C-7 | 574136 | | | | | | | | | | | | | |
| 116-DR-2 | 574152 | | | | | | | | | | | | | |
| 216-A-11 | 575135 | | | | | | | | | | | | | |
| 216-A-12 | 575135 | | | | | | | | | | | | | |
| 216-A-14 | 575135 | | | | | | | | | | | | | |
| 216-A-15 | 575135 | | | | | | | | | | | | | |
| 216-A-2 | 575135 | | | | | | | | | | | | | |
| 216-A-21 | 575135 | | | | | | | | | | | | | |
| 216-A-26A | 575135 | | | | | | | | | | | | | |
| 216-A-27 | 575135 | | | | | | | | | | | | | |
| 216-A-30 | 575135 | | | | | | | | | | | | | |
| 216-A-31 | 575135 | | | | | | | | | | | | | |
| 216-A-36A | 575135 | | | | | | | | | | | | | |
| 216-A-37-1 | 575135 | | | | | | | | | | | | | |
| 216-A-4 | 575135 | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | FeCN g | FeNO3 g | H2SO4 g | Hg g | HNO3 g | K g | KBO2 g | MgNO3 g | MIBK g | Na g | NaAl g | NaCr2 g | NaOH g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-7A&B | 573137 | | | | | | 4.00E+08 | | | | 1.60E+09 | | | |
| 216-B-8 | 573137 | | | 1.40E+09 | | | 4.00E+07 | | | | 9.00E+08 | | | |
| 116-D-1A | 573151 | | | | | | | | | | | | 1.00E+06 | |
| 116-D-1B | 573151 | | | | | | | | | | | | 7.00E+05 | |
| 116-D-2 | 573151 | | | | | | | | | | | | 4.00E+00 | |
| 116-DR-4 | 573151 | | | | | | | | | | | | 4.00E+00 | |
| 116-DR-6 | 573151 | | | | | | | | | | | | 2.00E+03 | |
| 116-DR-7 | 573151 | | | | | | | 3.00E+06 | | | | | | |
| 116-DR-1 | 573152 | | | | | | | | | | | | 4.00E+04 | |
| 216-A-13 | 574135 | | | | | | | | | | | | | |
| 216-A-22 | 574135 | | | | | | | | | | | | | |
| 216-A-28 | 574135 | | | | | | | | | | | | | |
| 216-A-35 | 574135 | | | | | | | | | | | | | |
| 216-C-1 | 574136 | | | | | 1.50E+07 | | | | | | | | |
| 216-C-3 | 574136 | | | | | | | | | | | | | |
| 216-C-4 | 574136 | | | | | | | | | | | | | |
| 216-C-5 | 574136 | | | | | | | | | | 3.00E+06 | | | |
| 216-C-6 | 574136 | | | | | | | | | | | | | |
| 216-C-7 | 574136 | | | | | | | | | | | | | |
| 116-DR-2 | 574152 | | | | | | | | | | | | 4.00E+04 | |
| 216-A-11 | 575135 | | | | | | | | | | | | | |
| 216-A-12 | 575135 | | | | | | | | | | | | | |
| 216-A-14 | 575135 | | | | | | | | | | | | | |
| 216-A-15 | 575135 | | | | | 1.00E+03 | | | | | | | | |
| 216-A-2 | 575135 | | | | | | | | | | | | | |
| 216-A-21 | 575135 | | | | | | | | | | 1.10E+07 | | 3.00E+05 | |
| 216-A-26A | 575135 | | | | | | | | | | | | | |
| 216-A-27 | 575135 | | | | | | | | | | 6.00E+06 | | 2.00E+05 | |
| 216-A-30 | 575135 | | | | | | | | | | | | | |
| 216-A-31 | 575135 | | | | | | | | | | | | | |
| 216-A-36A | 575135 | | | | | | | | | | | | | |
| 216-A-37-1 | 575135 | | | | | | | | | | | | | |
| 216-A-4 | 575135 | | | | | | | | | | 4.00E+06 | | 1.10E+05 | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | NaOxal g | NaSI g | NaSulfam g | NH4CO3 g | NH4NO3 g | NIII g | NO2 g | NO3 g | NPH g | Oxalate g | PbII g | PO4 g | SO4 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-B-7A&B | 573137 | | | | | 2.20E+07 | | | 1.80E+09 | | 6.00E+07 | | 1.30E+08 | 1.50E+07 |
| 216-B-8 | 573137 | | | | | 1.60E+08 | | | 1.40E+09 | | 6.00E+06 | | 5.00E+08 | 7.00E+07 |
| 116-D-1A | 573151 | | | | | | | | | | | | | |
| 116-D-1B | 573151 | 2.00E+06 | | 2.00E+06 | | | | | | | | | | |
| 116-D-2 | 573151 | | | | | | | | | | | | | |
| 116-DR-4 | 573151 | | | | | | | | | | | | | |
| 116-DR-6 | 573151 | | | | | | | | | | | | | |
| 116-DR-7 | 573151 | | | | | | | | | | | | | |
| 116-DR-1 | 573152 | | | | | | | | | | | | | |
| 216-A-13 | 574135 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-22 | 574135 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-28 | 574135 | | | | | | | | 3.00E+05 | | | | | |
| 216-A-35 | 574135 | | | | | | | | 1.00E+03 | | | | | |
| 216-C-1 | 574136 | | | | | | | | | | | | | |
| 216-C-3 | 574136 | | | | | | | | 2.00E+04 | | | | | |
| 216-C-4 | 574136 | | | | | | | | | 2.40E+07 | | | | |
| 216-C-5 | 574136 | | | | | | | | 8.00E+06 | | | | | |
| 216-C-6 | 574136 | | | | | | | | 3.30E+05 | | | | | |
| 216-C-7 | 574136 | | | | | | | | 1.00E+03 | | | | | |
| 116-DR-2 | 574152 | | | | | | | | | | | | | |
| 216-A-11 | 575135 | | | | | | | | 1.00E+05 | | | | | |
| 216-A-12 | 575135 | | | | | | | | 1.00E+05 | | | | | |
| 216-A-14 | 575135 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-15 | 575135 | | | | | | | | | | | | | |
| 216-A-2 | 575135 | | | | | | | | | 1.20E+08 | | | | |
| 216-A-21 | 575135 | | | | | 4.00E+08 | | | 9.00E+06 | | | | | 1.50E+07 |
| 216-A-26A | 575135 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-27 | 575135 | | | | | 3.00E+08 | | | 5.00E+06 | | | | | 9.00E+06 |
| 216-A-30 | 575135 | | | | | | | | 1.60E+07 | | | | | |
| 216-A-31 | 575135 | | | | | | | | | 5.20E+06 | | | | |
| 216-A-36A | 575135 | | | | | 3.00E+06 | | | | | | | | |
| 216-A-37-1 | 575135 | | | | | | | | 6.00E+05 | | | | | |
| 216-A-4 | 575135 | | | | | | | | 3.00E+05 | | | | | 5.00E+06 |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | SulfAcid g | TBP g | TBPPH g | TrIChlor g | U g | ZnII g |
|---|---|---|---|---|---|---|---|
| 216-B-7A&B | 573137 | | | | | | |
| 216-B-8 | 573137 | | | | | | |
| 116-D-1A | 573151 | | | | | | |
| 116-D-1B | 573151 | | | | | | |
| 116-D-2 | 573151 | | | | | | |
| 116-DR-4 | 573151 | | | | | | |
| 116-DR-6 | 573151 | | | | | | |
| 116-DR-7 | 573151 | | | | | | |
| 116-DR-1 | 573152 | | | | | | |
| 216-A-13 | 574135 | | | | | | |
| 216-A-22 | 574135 | | | | | | |
| 216-A-28 | 574135 | | | | | | |
| 216-A-35 | 574135 | | | | | | |
| 216-C-1 | 574136 | | | | | | |
| 216-C-3 | 574136 | | | | | | |
| 216-C-4 | 574136 | | | 1.40E+07 | | | |
| 216-C-5 | 574136 | | | | | | |
| 216-C-6 | 574136 | | | | | | |
| 216-C-7 | 574136 | | | | | | |
| 116-DR-2 | 574152 | | | | | | |
| 216-A-11 | 575135 | | | | | | |
| 216-A-12 | 575135 | | | | | | |
| 216-A-14 | 575135 | | | | | | |
| 216-A-15 | 575135 | | | | | | |
| 216-A-2 | 575135 | | 7.00E+07 | | | | |
| 216-A-21 | 575135 | | | | | | |
| 216-A-26A | 575135 | | | | | | |
| 216-A-27 | 575135 | | | | | | |
| 216-A-30 | 575135 | | | | | | |
| 216-A-31 | 575135 | | 2.90E+06 | | | | |
| 216-A-36A | 575135 | | | | | | |
| 216-A-37-1 | 575135 | | | | | | |
| 216-A-4 | 575135 | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | AgI g | AlFNO3 g | AlNO3 g | Be g | BP g | CaNO3 g | CCl4 g | CdII g | CrVI g | Cu2SO4 g | CuII g | DBBP g | F g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-A-5 | 575135 | | | | | | | | | | | | | |
| 216-A-6 | 575135 | | | | | | | | | | | | | |
| 216-A-1 | 575136 | | | | | | | | | | | | | |
| 216-A-16 | 575136 | | | | | | | | | | | | | |
| 216-A-17 | 575136 | | | | | | | | | | | | | |
| 216-A-18 | 575136 | | | | | | | | | | | | | |
| 216-A-19 | 575136 | | | | | | | | | | | | | |
| 216-A-20 | 575136 | | | | | | | | | | | | | |
| 216-A-23A | 575136 | | | | | | | | | | | | | |
| 216-A-23B | 575136 | | | | | | | | | | | | | |
| 216-A-24 | 575136 | | | | | 9.00E+07 | | | | | | | | |
| 216-A-40 | 575136 | | | | | | | | | | | | | |
| 216-A-41 | 575136 | | | | | | | | | | | | | |
| 216-A-7 | 575136 | | | | | | | | | | | | | |
| 216-A-8 | 575136 | | | | | 1.30E+08 | | | | | | | | |
| 216-A-9 | 575136 | | | | | | | | | | | | | |
| 116-H-2 | 577152 | | | | | | | | | | | | | |
| 116-H-3 | 577152 | | | | | | | | | | | | | |
| 116-H-4 | 577152 | | | | | | | | | | | | | |
| 116-H-1 | 578152 | | | | | | | | | | | | | |
| 116-F-1 | 580147 | | | | | | | | | | | | | |
| 116-F-10 | 580147 | | | | | | | | | | | | | |
| 116-F-3 | 580147 | | | | | | | | | | | | | |
| 116-F-4 | 580147 | | | | | | | | | | | | | |
| 116-F-6 | 580147 | | | | | | | | | | | | | |
| 116-F-2 | 581147 | | | | | | | | | | | | | |
| 316-4 | 591122 | | | | | | | | | | | | | |
| 316-3 | 594115 | 3.00E+05 | | | 1.00E+04 | | | | 2.00E+04 | 1.00E+06 | | 2.00E+07 | | 2.00E+06 |
| 316-1 | 594116 | 1.00E+06 | | | 4.00E+04 | | | | 8.00E+04 | 5.00E+06 | | 6.00E+07 | | 7.00E+06 |
| 316-2 | 594116 | 9.00E+05 | | | 3.00E+04 | | | | 6.00E+04 | 3.00E+06 | | 5.00E+07 | | 5.00E+06 |
| 216-T-4-2 | | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | FeCN g | FeNO3 g | H2SO4 g | Hg g | HNO3 g | K g | KBO2 g | MgNO3 g | MIBK g | Na g | NaAl g | NaCr2 g | NaOH g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-A-5 | 575135 | | | | | | | | | | | | | |
| 216-A-6 | 575135 | | | | | | | | | | | | | |
| 216-A-1 | 575136 | | | | | | | | | | | | | |
| 216-A-16 | 575136 | | | | | | | | | | | | | |
| 216-A-17 | 575136 | | | | | | | | | | | | | |
| 216-A-18 | 575136 | | | | | | | | | | | | | |
| 216-A-19 | 575136 | | | | | | | | | | | | | |
| 216-A-20 | 575136 | | | | | | | | | | | | | |
| 216-A-23A | 575136 | | | | | | | | | | | | | |
| 216-A-23B | 575136 | | | | | | | | | | | | | |
| 216-A-24 | 575136 | | | | | | | | | | | | | |
| 216-A-40 | 575136 | | | | | | | | | | | | | |
| 216-A-41 | 575136 | | | | | | | | | | | | | |
| 216-A-7 | 575136 | | | | | | | | | | | | | |
| 216-A-8 | 575136 | | | | | | | | | | | | | |
| 216-A-9 | 575136 | | | | | | | | | | | | | |
| 116-H-2 | 577152 | | | | | | | | | | | | 6.00E+05 | |
| 116-H-3 | 577152 | | | | | | | | | | | | 2.00E+06 | |
| 116-H-4 | 577152 | | | | | | | | | | | | 1.00E+06 | |
| 116-H-1 | 578152 | | | | | | | | | | | | 9.00E+04 | |
| 116-F-1 | 580147 | | | | | | | | | | | | 1.00E+05 | |
| 116-F-10 | 580147 | | | | | | | | | | | | 2.00E+06 | |
| 116-F-3 | 580147 | | | | | | | | | | | | 4.00E+03 | |
| 116-F-4 | 580147 | | | | | | | | | | | | 4.00E+00 | |
| 116-F-6 | 580147 | | | | | | | | | | | | | |
| 116-F-2 | 581147 | | | | | | | | | 3.00E+06 | | | 6.00E+04 | |
| 316-4 | 591122 | | | | | | | | | | | | | |
| 316-3 | 594115 | | | | 1.00E+04 | | | | | | | | | |
| 316-1 | 594116 | | | | 6.00E+04 | 1.00E+09 | | | | | 2.00E+09 | 2.00E+09 | | 1.00E+09 |
| 316-2 | 594116 | | | | 4.00E+04 | 9.00E+08 | | | | | 1.00E+09 | 2.00E+09 | | 8.00E+08 |
| 216-T-4-2 | | | | | | | | | | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | NaOxal g | NaSi g | NaSulfam g | NH4CO3 g | NH4NO3 g | NIII g | NO2 g | NO3 g | NPH g | Oxalate g | PbII g | PO4 g | SO4 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 216-A-5 | 575135 | | | | | | | | 1.00E+09 | | | | | |
| 216-A-6 | 575135 | | | | | | | | 1.00E+07 | | | | | |
| 216-A-1 | 575136 | | | | | | | | 8.00E+04 | | | | | |
| 216-A-16 | 575136 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-17 | 575136 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-18 | 575136 | | | | | | | | 7.30E+05 | | | | | |
| 216-A-19 | 575136 | | | | | | | | 2.00E+07 | | | | | |
| 216-A-20 | 575136 | | | | | | | | 2.10E+05 | | | | | |
| 216-A-23A | 575136 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-23B | 575136 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-24 | 575136 | | | | 2.00E+08 | | | | | 3.00E+07 | | | | |
| 216-A-40 | 575136 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-41 | 575136 | | | | | | | | 1.00E+03 | | | | | |
| 216-A-7 | 575136 | | | | | | | | | 1.80E+08 | | | | |
| 216-A-8 | 575136 | | | | 3.20E+08 | | | | | 4.60E+07 | | | | |
| 216-A-9 | 575136 | | | | | | | | 3.00E+08 | | | | | |
| 116-H-2 | 577152 | | | | | | | | | | | | | |
| 116-H-3 | 577152 | 2.00E+06 | | 2.00E+06 | | | | | | | | | | |
| 116-H-4 | 577152 | | | | | | | | | | | | | |
| 116-H-1 | 578152 | | | | | | | | | | | | | |
| 116-F-1 | 580147 | | | | | | | | | | | | | |
| 116-F-10 | 580147 | 2.00E+06 | | 2.00E+06 | | | | | | | | | | |
| 116-F-3 | 580147 | | | | | | | | | | | | | |
| 116-F-4 | 580147 | | | | | | | | | | | | | |
| 116-F-6 | 580147 | | | | | | | | | | | | | |
| 116-F-2 | 581147 | | | | | | | | | | | | | |
| 316-4 | 591122 | | | | | | | | 1.00E+06 | | | | | |
| 316-3 | 594115 | | | | | | 3.00E+06 | | | | | 6.00E+05 | | |
| 316-1 | 594116 | | 1.00E+08 | | | | 1.00E+07 | 9.00E+08 | 1.00E+09 | | | 4.00E+06 | | |
| 316-2 | 594116 | | 9.00E+07 | | | | 8.00E+06 | 7.00E+08 | 8.00E+08 | | | 2.00E+06 | | |
| 216-T-4-2 | | | | | | | | | 1.00E+03 | | | | | |

*Table B2-6. Chemical Inventories of Water Sites. (24 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | SulfAcid g | TBP g | TBPPH g | TriChlor g | U g | ZnII g |
|---|---|---|---|---|---|---|---|
| 216-A-5 | 575135 | | | | | | |
| 216-A-6 | 575135 | | | | | | |
| 216-A-1 | 575136 | | | | | | |
| 216-A-16 | 575136 | | | | | | |
| 216-A-17 | 575136 | | | | | | |
| 216-A-18 | 575136 | | | | | | |
| 216-A-19 | 575136 | | | | | | |
| 216-A-20 | 575136 | | | | | | |
| 216-A-23A | 575136 | | | | | | |
| 216-A-23B | 575136 | | | | | | |
| 216-A-24 | 575136 | | | | | | |
| 216-A-40 | 575136 | | | | | | |
| 216-A-41 | 575136 | | | | | | |
| 216-A-7 | 575136 | | 1.00E+08 | | | | |
| 216-A-8 | 575136 | | | | | | |
| 216-A-9 | 575136 | | | | | | |
| 116-H-2 | 577152 | | | | | | |
| 116-H-3 | 577152 | | | | | | |
| 116-H-4 | 577152 | | | | | | |
| 116-H-1 | 578152 | | | | | | |
| 116-F-1 | 580147 | 1.00E+07 | | | | | |
| 116-F-10 | 580147 | | | | | | |
| 116-F-3 | 580147 | | | | | | |
| 116-F-4 | 580147 | | | | | | |
| 116-F-6 | 580147 | 3.00E+06 | | | | | |
| 116-F-2 | 581147 | | | | | | |
| 316-4 | 591122 | | | | | 2.00E+06 | |
| 316-3 | 594115 | | | | | 1.00E+07 | 1.00E+06 |
| 316-1 | 594116 | | | | 1.00E+08 | 4.00E+07 | 5.00E+06 |
| 316-2 | 594116 | | | | 1.00E+08 | 3.00E+07 | 3.00E+06 |
| 216-T-4-2 | | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 118-B-1 | 564143 | | 6.60E-01 | | | 8.86E+02 | | 1.50E+00 | 1.65E+01 | 3.02E+01 | | | 3.80E+03 | |
| 216-S-16P | 565133 | | | | | | | 1.04E+02 | | | | | | |
| 216-U-11 | 565134 | | | | | | | 6.47E-02 | | | | | 1.48E+02 | |
| 118-C-1 | 565143 | | 3.64E+00 | | | 5.71E+02 | | 1.30E+00 | 1.42E+01 | 2.60E+01 | | | 8.50E+00 | |
| 116-B-2 | 565144 | | | | | 9.78E-02 | 3.90E-04 | 3.06E-01 | 1.18E+00 | 1.90E-01 | 2.43E-02 | | 5.73E-02 | |
| 116-B-3 | 565144 | | | | | 3.17E-01 | | 1.41E-01 | 2.76E-01 | 3.76E-02 | 7.89E-03 | | 2.27E-01 | |
| 116-B-4 | 565144 | | | | | 4.33E+00 | | | | | | | | |
| 116-B-5 | 565144 | | | | | 3.71E-02 | 9.70E-04 | 2.07E-03 | 9.20E-02 | 2.32E-02 | 2.20E-04 | | 1.89E+02 | |
| 116-B-6A | 565144 | | | | | 2.19E-03 | | 1.49E-01 | 6.00E-05 | 1.30E-04 | 2.31E-03 | | | |
| 116-B-6B | 565144 | | | | | 1.00E-03 | | 2.10E-04 | 1.60E-04 | | 4.00E-05 | | 7.56E-03 | |
| 116-C-2A | 565144 | | | | | 1.32E-02 | 1.00E-05 | 8.30E-04 | 9.20E-03 | 4.90E-04 | 4.42E-03 | | 3.15E-01 | |
| 116-C-2C | 565144 | | | | | 7.76E+01 | 2.44E-02 | 8.27E+00 | 5.19E+00 | 3.14E-01 | 2.12E+00 | | 2.83E-01 | |
| 118-B-2 | 565144 | | | | | 1.00E+00 | | | | | | | | |
| 118-B-3 | 565144 | | | | | 3.87E+01 | | | | | | | | |
| 118-B-4 | 565144 | | | | | 1.00E+00 | | | | | | | | |
| 118-B-5 | 565144 | | | | | 1.00E+00 | | | | | | | | |
| 118-B-6 | 565144 | | | | | | | | | | | | 1.00E+03 | |
| 118-B-7 | 565144 | | | | | 1.00E+00 | | | | | | | | |
| 118-C-2 | 565144 | | | | | 8.00E+01 | | | | | | | | |
| 100BC PIPING | 565145 | | | | | 1.70E+00 | 1.70E-01 | 8.70E+00 | 1.90E+00 | 5.20E-01 | 3.30E+01 | | 3.00E-01 | |
| 116-B-1 | 565145 | | | | | 9.78E-02 | 3.90E-04 | 3.06E-01 | 1.18E+00 | 1.90E-01 | 2.43E-02 | | 5.73E-02 | |
| 116-B-11 | 565145 | | | | | 2.42E+01 | 2.30E-02 | 2.54E+01 | 6.58E+01 | 1.87E+01 | 8.26E-01 | | | |
| 116-C-1 | 565145 | | | | | 1.08E+02 | 2.50E-02 | 5.79E+00 | 1.51E+02 | 6.17E+01 | 3.79E-01 | | 8.81E-01 | |
| 116-C-5 | 565145 | | | | | 1.61E+01 | 1.15E+00 | 1.51E+01 | 3.65E+01 | 1.20E+01 | 1.01E+00 | | 3.19E-01 | |
| 216-S-10D | 566133 | 1.59E-02 | | | | | | 3.00E+00 | | | | | | |
| 216-S-11 | 566133 | 2.04E-03 | | | | | | 1.79E+00 | | | | | | |
| 216-S-17 | 566133 | 1.98E-02 | | | | | | 4.09E+01 | | | | | | |
| 216-S-5 | 566133 | 3.82E+00 | | | | | | 1.06E+02 | | | | | | |
| 216-S-6 | 566133 | 3.11E+00 | | | | | | 4.30E+02 | | | | | | |
| 216-S-1&2 | 566134 | 7.90E+00 | | | | | | 3.48E+03 | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 118-B-1 | 564143 | | | 9.66E+01 | | | | | | | | | | |
| 216-S-16P | 565133 | | | | | | | 2.26E+01 | | | | | | |
| 216-U-11 | 565134 | | | | | | | | | | | | | |
| 118-C-1 | 565143 | | | 6.26E+01 | | | | | | | | | | |
| 116-B-2 | 565144 | | | | | | 9.00E-05 | 7.30E-03 | 7.99E-03 | | | | | |
| 116-B-3 | 565144 | | | | | | 1.22E-03 | 6.03E-03 | 6.70E-04 | | | | | |
| 116-B-4 | 565144 | | | | | | | | | | | | | |
| 116-B-5 | 565144 | | | | | | | | | | | | | |
| 116-B-6A | 565144 | | | | | | | 1.80E-03 | 2.00E-04 | | | | | |
| 116-B-6B | 565144 | | | | | | 1.00E-05 | | | | | | | |
| 116-C-2A | 565144 | | | | | | | | | | | | | |
| 116-C-2C | 565144 | | | | | | 1.12E-01 | 1.08E-01 | 1.20E-02 | | | | | |
| 118-B-2 | 565144 | | | | | | | | | | | | | |
| 118-B-3 | 565144 | | | | | | | | | | | | | |
| 118-B-4 | 565144 | | | | | | | | | | | | | |
| 118-B-5 | 565144 | | | | | | | | | | | | | |
| 118-B-6 | 565144 | | | | | | | | | | | | | |
| 118-B-7 | 565144 | | | | | | | | | | | | | |
| 118-C-2 | 565144 | | | 1.60E+00 | | | | | | | | | | |
| 100BC PIPING | 565145 | | | | | | | | 1.30E-02 | | | | | |
| 116-B-1 | 565145 | | | | | | 9.00E-05 | 7.30E-03 | 7.99E-03 | | | | | |
| 116-B-11 | 565145 | | | | | | 1.50E-02 | 7.50E-01 | | | | | | |
| 116-C-1 | 565145 | | | | | | | 1.17E-01 | 1.30E-02 | | | | | |
| 116-C-5 | 565145 | | | | | | | 2.50E-01 | | | | | | |
| 216-S-10D | 566133 | | | | | | 1.54E-04 | 3.49E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-S-11 | 566133 | | | | | | 4.77E-04 | 2.36E-02 | 4.14E-03 | 5.88E-02 | 3.54E-07 | | | |
| 216-S-17 | 566133 | | | | | | 4.62E-03 | 3.59E-01 | 4.01E-02 | 5.69E-01 | 3.43E-06 | | | |
| 216-S-5 | 566133 | | | | | | 8.93E-01 | 6.95E+01 | 7.75E+00 | 1.10E+02 | 6.63E-04 | | | |
| 216-S-6 | 566133 | | | | | | 7.28E-01 | 5.66E+01 | 6.32E+00 | 8.96E+01 | 5.40E-04 | | | |
| 216-S-1&2 | 566134 | | | | | | 1.85E+00 | 1.44E+02 | 1.60E+01 | 2.27E+02 | 1.37E-03 | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 118-B-1 | 564143 | | | | | 1.50E+00 | | | | | | |
| 216-S-16P | 565133 | 4.47E-06 | | | | 1.19E+02 | | | | 7.35E-03 | 1.04E+00 | |
| 216-U-11 | 565134 | 1.60E-05 | | | | 4.10E-02 | | | | | | |
| 118-C-1 | 565143 | | | | | 1.30E+00 | | | | | | |
| 116-B-2 | 565144 | | | | | 7.04E-02 | | | | 1.30E-04 | 1.29E-02 | |
| 116-B-3 | 565144 | | | | | 1.96E-02 | | | | | 3.40E-04 | |
| 116-B-4 | 565144 | | | | | | | | | | | |
| 116-B-5 | 565144 | | | | | 1.15E-03 | | | | 2.00E-05 | 2.77E-03 | |
| 116-B-6A | 565144 | | | | | 9.00E-01 | | | | | 8.80E-04 | |
| 116-B-6B | 565144 | | | | | 1.90E-04 | | | | | | |
| 116-C-2A | 565144 | | | | | 9.82E-01 | | | | 9.90E-04 | | |
| 116-C-2C | 565144 | | | | | 1.80E+00 | | | | | 1.20E-01 | |
| 118-B-2 | 565144 | | | | | | | | | | | |
| 118-B-3 | 565144 | | | | | | | | | | | |
| 118-B-4 | 565144 | | | | | | | | | | | |
| 118-B-5 | 565144 | | | | | | | | | | | |
| 118-B-6 | 565144 | | | | | | | | | | | |
| 118-B-7 | 565144 | | | | | | | | | | | |
| 118-C-2 | 565144 | | | | | | | | | | | |
| 100BC PIPING | 565145 | | | | | | | | | 4.60E-03 | | |
| 116-B-1 | 565145 | | | | | 7.04E-02 | | | | 1.30E-04 | 1.29E-02 | |
| 116-B-11 | 565145 | | | | | 4.26E-01 | | | | 2.60E-02 | | |
| 116-C-1 | 565145 | | | | | 1.64E+00 | | | | 3.10E-04 | 3.56E-02 | |
| 116-C-5 | 565145 | | | | | 1.89E+00 | | | | 1.80E-01 | | |
| 216-S-10D | 566133 | 3.46E-01 | | | | 2.83E+00 | | | | 4.70E-04 | 6.66E-02 | |
| 216-S-11 | 566133 | 2.92E-01 | | | | 1.78E+00 | | | | 4.80E-05 | 6.80E-03 | |
| 216-S-17 | 566133 | 3.12E-10 | | | | 4.41E+01 | | | | 3.17E-04 | 4.50E-02 | |
| 216-S-5 | 566133 | 7.14E-10 | | | | 1.34E+02 | | | | 6.35E-04 | 9.01E-02 | |
| 216-S-6 | 566133 | 5.89E-06 | | | | 5.19E+02 | | | | 6.34E-04 | 9.00E-02 | |
| 216-S-1&2 | 566134 | 6.19E-08 | | | | 3.63E+03 | | | | 5.29E-03 | 7.51E-01 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 216-S-21 | 566134 | 1.37E-02 | | | | | | 1.90E+02 | | | | | | |
| 216-S-25 | 566134 | 3.07E-04 | | | | | | 1.88E-01 | | | | | 1.48E+02 | |
| 216-S-3 | 566134 | 3.29E-03 | | | | | | 4.34E+01 | | | | | | |
| 216-S-4 | 566134 | | | | | | | | | | | | 2.00E-02 | |
| 216-S-8 | 566134 | 1.32E-02 | | | | | | 1.02E+01 | | | | | | |
| 216-U-10 | 566134 | 5.32E+01 | | | | | | 3.31E+01 | | | | | 1.96E+02 | |
| 216-U-3 | 566134 | 6.59E-04 | | | | | | 8.93E-01 | | | | | | |
| 216-Z-11 | 566134 | | | | | | | | | | | | | |
| 216-Z-1D | 566134 | | | | | | | | | | | | | |
| 216-T-19 | 566135 | 9.58E-02 | | | | | | 2.14E+02 | | | | | 4.25E+00 | |
| 216-U-13 | 566135 | 6.59E-04 | | | | | | 1.32E-01 | | | | | | |
| 216-Z-1&2 | 566135 | 4.63E+01 | | | | | | 1.18E-01 | | | | | | |
| 216-Z-10 | 566135 | 3.29E-01 | | | | | | | | | | | | |
| 216-Z-12 | 566135 | 1.65E+02 | | | | | | 1.58E-01 | | | | | | |
| 216-Z-16 | 566135 | 4.72E-01 | | | | | | 5.00E-04 | | | | | | |
| 216-Z-17 | 566135 | 3.31E-01 | | | | | | 2.24E-04 | | | | | | |
| 216-Z-18 | 566135 | 1.51E+02 | | | | | | | | | | | | |
| 216-Z-1A | 566135 | 3.78E+02 | | | | | | 4.73E-01 | | | | | | |
| 216-Z-20 | 566135 | 1.01E+00 | | | | | | 2.91E-01 | | | | | | |
| 216-Z-3 | 566135 | 3.75E+01 | | | | | | 1.40E-01 | | | | | | |
| 216-Z-4 | 566135 | 1.32E-02 | | | | | | 1.02E-01 | | | | | | |
| 216-Z-5 | 566135 | 2.24E+00 | | | | | | 8.70E+00 | | | | | | |
| 216-Z-6 | 566135 | 3.29E-02 | | | | | | 1.02E-01 | | | | | | |
| 216-Z-7 | 566135 | 1.32E+01 | | | | | | 6.07E+02 | | | | | | |
| 216-Z-8 | 566135 | 3.19E-01 | | | | | | | | | | | | |
| 216-Z-9 | 566135 | 2.52E+02 | | | | | | 1.50E-01 | | | | | | |
| 216-T-1 | 566136 | 6.59E-04 | | | | | | 1.12E-01 | | | | | | |
| 216-T-14 | 566136 | 5.80E-03 | | | | | | 4.02E+02 | | | | | | |
| 216-T-15 | 566136 | 6.19E-03 | | | | | | 8.91E+02 | | | | | | |
| 216-T-16 | 566136 | 4.28E-03 | | | | | | 4.48E+02 | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 216-S-21 | 566134 | | | | | | 3.20E-03 | 2.50E-01 | 2.78E-02 | 3.94E-01 | 2.38E-06 | | | |
| 216-S-25 | 566134 | | | | | | 7.17E-05 | 1.47E-02 | 6.23E-04 | 8.83E-03 | 5.32E-08 | | | |
| 216-S-3 | 566134 | | | | | | 7.70E-04 | 5.99E-02 | 6.68E-03 | 9.48E-02 | 5.71E-07 | | | |
| 216-S-4 | 566134 | | | | | | | | | | | | | |
| 216-S-8 | 566134 | | | | | | 3.08E-03 | 2.40E-01 | 2.67E-02 | 3.79E-01 | 2.29E-06 | | | |
| 216-U-10 | 566134 | | | | | | 1.23E+01 | 9.72E+02 | 1.07E+02 | 1.52E+03 | 9.14E-03 | | | |
| 216-U-3 | 566134 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-Z-11 | 566134 | | | | | | | 1.37E+02 | 3.70E+01 | | | | | |
| 216-Z-1D | 566134 | | | | | | | 1.37E+02 | 3.70E+01 | | | | | |
| 216-T-19 | 566135 | | | | | | 2.22E-02 | 1.72E+00 | 1.92E-01 | 2.73E+00 | 1.65E-05 | | | |
| 216-U-13 | 566135 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-Z-1&2 | 566135 | | | | | | 1.08E+01 | 8.42E+02 | 9.39E+01 | 1.33E+03 | 8.03E-03 | | | |
| 216-Z-10 | 566135 | | | | | | 7.70E-02 | 5.99E+00 | 6.68E-01 | 9.48E+00 | 5.71E-05 | | | |
| 216-Z-12 | 566135 | | | | | | 3.86E+01 | 3.01E+03 | 3.35E+02 | 4.76E+03 | 2.87E-02 | | | |
| 216-Z-16 | 566135 | | | | | | 1.10E-01 | 8.58E+00 | 9.57E-01 | 1.36E+01 | 8.18E-05 | | | |
| 216-Z-17 | 566135 | | | | | | 7.73E-02 | 6.01E+00 | 6.71E-01 | 9.51E+00 | 5.74E-05 | | | |
| 216-Z-18 | 566135 | | | | | | 3.52E+01 | 2.75E+03 | 3.06E+02 | 4.34E+03 | 2.62E-02 | | | |
| 216-Z-1A | 566135 | | | | | | 8.84E+01 | 6.88E+03 | 7.68E+02 | 1.09E+04 | 6.56E-02 | | | |
| 216-Z-20 | 566135 | | | | | | 1.55E-02 | 4.26E+00 | 1.98E-03 | 2.54E+00 | 1.69E-07 | | | |
| 216-Z-3 | 566135 | | | | | | 8.77E+00 | 6.83E+02 | 7.62E+01 | 1.08E+03 | 6.51E-03 | | | |
| 216-Z-4 | 566135 | | | | | | 3.08E-03 | 2.40E-01 | 2.67E-02 | 3.79E-01 | 2.29E-06 | | | |
| 216-Z-5 | 566135 | | | | | | 5.23E-01 | 4.08E+01 | 4.54E+00 | 6.44E+01 | 3.88E-04 | | | |
| 216-Z-6 | 566135 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-Z-7 | 566135 | | | | | | 3.08E+00 | 2.40E+02 | 2.67E+01 | 3.79E+02 | 2.29E-03 | | | |
| 216-Z-8 | 566135 | | | | | | 7.45E-02 | 5.80E+00 | 6.47E-01 | 9.17E+00 | 5.53E-05 | | | |
| 216-Z-9 | 566135 | | | | | | 5.89E+01 | 4.59E+03 | 5.12E+02 | 7.26E+03 | 4.38E-02 | | | |
| 216-T-1 | 566136 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-T-14 | 566136 | | | | | | 1.35E-03 | 1.05E-01 | 1.18E-02 | 1.67E-01 | 1.01E-06 | | | |
| 216-T-15 | 566136 | | | | | | 1.45E-03 | 1.13E-01 | 1.26E-02 | 1.78E-01 | 1.07E-06 | | | |
| 216-T-16 | 566136 | | | | | | 1.00E-03 | 7.79E-02 | 8.69E-03 | 1.23E-01 | 7.43E-07 | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 216-S-21 | 566134 | 1.39E-06 | | | | 1.26E+02 | | | | 9.80E-06 | 1.39E-03 | |
| 216-S-25 | 566134 | 1.60E-05 | | | | 1.65E-01 | | | | 3.89E-04 | 5.51E-02 | |
| 216-S-3 | 566134 | 1.09E-09 | | | | 2.19E+01 | | | | 8.89E-07 | 1.26E-04 | |
| 216-S-4 | 566134 | | | | | | | | | | | |
| 216-S-8 | 566134 | 1.30E-10 | | | | 5.64E+00 | | | | 4.55E-04 | 6.45E-02 | |
| 216-U-10 | 566134 | 2.78E-05 | | | | 3.31E+01 | | | | 1.32E-02 | 1.87E+00 | |
| 216-U-3 | 566134 | 1.38E-11 | | | | 5.00E-01 | | | | 4.24E-05 | 6.01E-03 | |
| 216-Z-11 | 566134 | | | | | | | | | | | |
| 216-Z-1D | 566134 | | | | | | | | | | | |
| 216-T-19 | 566135 | 6.03E-06 | | | | 2.24E+02 | | | | 2.23E-05 | 3.17E-03 | |
| 216-U-13 | 566135 | 1.38E-10 | | | | 1.30E-01 | | | | 1.06E-06 | 1.50E-04 | |
| 216-Z-1&2 | 566135 | 1.57E-11 | | | | 1.16E-01 | | | | 1.89E-04 | 2.68E-02 | |
| 216-Z-10 | 566135 | | | | | | | | | | | |
| 216-Z-12 | 566135 | 9.32E-07 | | | | 1.56E-01 | | | | 1.17E-07 | 1.66E-05 | |
| 216-Z-16 | 566135 | | | | | 5.00E-04 | | | | | | |
| 216-Z-17 | 566135 | | | | | 2.24E-04 | | | | | | |
| 216-Z-18 | 566135 | | | | | | | | | | | |
| 216-Z-1A | 566135 | 5.20E-06 | | | | 4.66E-01 | | | | 3.51E-07 | 4.97E-05 | |
| 216-Z-20 | 566135 | 1.07E-04 | | | | 2.71E-01 | | | | | | |
| 216-Z-3 | 566135 | 6.04E-09 | | | | 1.37E-01 | | | | 1.17E-07 | 1.66E-05 | |
| 216-Z-4 | 566135 | 2.78E-14 | | | | 9.99E-02 | | | | 1.17E-07 | 1.66E-05 | |
| 216-Z-5 | 566135 | 5.18E-12 | | | | 6.77E+00 | | | | 1.17E-07 | 1.66E-05 | |
| 216-Z-6 | 566135 | 2.78E-14 | | | | 9.99E-02 | | | | 1.17E-07 | 1.66E-05 | |
| 216-Z-7 | 566135 | 5.14E-06 | | | | 6.04E+02 | | | | 1.05E-05 | 1.49E-03 | |
| 216-Z-8 | 566135 | | | | | | | | | | | |
| 216-Z-9 | 566135 | 1.89E-08 | | | | 1.48E-01 | | | | 1.17E-07 | 1.66E-05 | |
| 216-T-1 | 566136 | 4.39E-13 | | | | 1.10E-01 | | | | 1.05E-05 | 1.49E-03 | |
| 216-T-14 | 566136 | 2.07E-10 | | | | 2.00E+02 | | | | 7.07E-05 | 1.00E-02 | |
| 216-T-15 | 566136 | 1.66E-10 | | | | 4.49E+02 | | | | 6.35E-05 | 9.01E-03 | |
| 216-T-16 | 566136 | 1.79E-10 | | | | 2.24E+02 | | | | 5.18E-05 | 7.35E-03 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 216-T-17 | 566136 | 3.49E-03 | | | | | | 3.19E+02 | | | | | | |
| 216-T-18 | 566136 | 1.19E+01 | | | | | | 5.03E+01 | | | | | | |
| 216-T-21 | 566136 | 6.59E-03 | | | | | | 3.45E+02 | | | | | | |
| 216-T-22 | 566136 | 1.32E-02 | | | | | | 1.59E+03 | | | | | | |
| 216-T-23 | 566136 | 6.59E-03 | | | | | | 1.15E+03 | | | | | | |
| 216-T-24 | 566136 | 1.32E-02 | | | | | | 1.23E+03 | | | | | | |
| 216-T-25 | 566136 | 6.59E-03 | | | | | | 7.57E+03 | | | | | | |
| 216-T-26 | 566136 | 3.89E-01 | | | | | | 4.33E+02 | | | | | | |
| 216-T-27 | 566136 | 8.56E-02 | | | | | | 1.85E+02 | | | | | | |
| 216-T-28 | 566136 | 4.61E-01 | | | | | | 4.93E+02 | | | | | | |
| 216-T-32 | 566136 | 2.11E+01 | | | | | | 3.01E+01 | | | | | | |
| 216-T-36 | 566136 | 1.63E-02 | | | | | | 1.18E+01 | | | | | | |
| 216-T-5 | 566136 | 1.19E+00 | | | | | | 6.14E+01 | | | | | | |
| 216-T-7 | 566136 | 8.56E-01 | | | | | | 6.58E+01 | | | | | | |
| 218-W-1 | 566136 | 6.19E+02 | | | | | | 1.64E+00 | | | | | | |
| 218-W-11 | 566136 | | | | | | | 1.05E-03 | | | | | | |
| 218-W-2 | 566136 | 8.30E+02 | | | | | | 4.68E+00 | | | | | | |
| 218-W-2A | 566136 | 4.20E+01 | | | | 3.24E-01 | | 2.77E+03 | | | | | | |
| 218-W-3 | 566136 | 4.48E+02 | | | | | | 9.16E+00 | | | | | | |
| 218-W-4A | 566136 | 2.33E+02 | | | | | | 3.93E+01 | | | | | | |
| 216-T-4B | 566137 | 2.44E-02 | | | | | | 1.57E+01 | | | | | | |
| 216-S-14 | 567133 | | | | | | | | | | | | 2.00E-02 | |
| 216-S-19 | 567133 | 1.36E-01 | | | | | | 3.85E+00 | | | | | 1.87E-01 | |
| 216-S-20 | 567133 | 1.13E+00 | | | | | | 1.35E+02 | | | | | | |
| 216-S-22 | 567133 | 6.65E-04 | | | | | | 1.39E+00 | | | | | | |
| 216-S-26 | 567133 | 5.80E-04 | | | | | | 8.09E-03 | | | | | | |
| 216-S-12 | 567134 | 6.59E-03 | | | | | | 1.26E+00 | | | | | | |
| 216-S-13 | 567134 | 5.27E-02 | | | | | | 5.52E+00 | | | | | | |
| 216-S-23 | 567134 | 6.55E-03 | | | | | | 8.01E+00 | | | | | | |
| 216-S-7 | 567134 | 2.90E+00 | | | | | | 2.79E+03 | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 216-T-17 | 566136 | | | | | | 8.16E-04 | 6.35E-02 | 7.08E-03 | 1.00E-01 | 6.06E-07 | | | |
| 216-T-18 | 566136 | | | | | | 2.77E+00 | 2.16E+02 | 2.41E+01 | 3.41E+02 | 2.06E-03 | | | |
| 216-T-21 | 566136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-T-22 | 566136 | | | | | | 3.08E-03 | 2.40E-01 | 2.67E-02 | 3.79E-01 | 2.29E-06 | | | |
| 216-T-23 | 566136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-T-24 | 566136 | | | | | | 3.08E-03 | 2.40E-01 | 2.67E-02 | 3.79E-01 | 2.29E-06 | | | |
| 216-T-25 | 566136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-T-26 | 566136 | | | | | | 9.08E-02 | 7.07E+00 | 7.88E-01 | 1.12E+01 | 6.74E-05 | | | |
| 216-T-27 | 566136 | | | | | | 2.00E-02 | 1.56E+00 | 1.74E-01 | 2.46E+00 | 1.49E-05 | | | |
| 216-T-28 | 566136 | | | | | | 1.08E-01 | 8.39E+00 | 9.35E-01 | 1.33E+01 | 8.00E-05 | | | |
| 216-T-32 | 566136 | | | | | | 4.92E+00 | 3.83E+02 | 4.28E+01 | 6.06E+02 | 3.66E-03 | | | |
| 216-T-36 | 566136 | | | | | | 3.82E-03 | 2.97E-01 | 3.31E-02 | 4.70E-01 | 2.83E-06 | | | |
| 216-T-5 | 566136 | | | | | | 2.77E-01 | 2.16E+01 | 2.41E+00 | 3.41E+01 | 2.06E-04 | | | |
| 216-T-7 | 566136 | | | | | | 2.00E-01 | 1.56E+01 | 1.74E+00 | 2.46E+01 | 1.49E-04 | | | |
| 218-W-1 | 566136 | | | | | | 1.45E+02 | 5.49E+03 | 1.26E+03 | 1.78E+04 | 1.07E-01 | | | |
| 218-W-11 | 566136 | | | | | | | | | | | | | |
| 218-W-2 | 566136 | | | | | | 1.94E+02 | 7.36E+03 | 1.68E+03 | 2.39E+04 | 1.44E-01 | | | |
| 218-W-2A | 566136 | | | | | | 9.82E+00 | 3.73E+02 | 8.53E+01 | 1.21E+03 | 7.29E-03 | | | |
| 218-W-3 | 566136 | | | | | | 1.05E+02 | 3.97E+03 | 9.09E+02 | 1.29E+04 | 7.77E-02 | | | |
| 218-W-4A | 566136 | | | | 1.18E+00 | | 5.44E+01 | 2.07E+03 | 4.73E+02 | 6.71E+03 | 4.04E-02 | | | |
| 216-T-4B | 566137 | | | | | | 5.71E-03 | 4.45E-01 | 4.96E-02 | 7.03E-01 | 4.24E-06 | | | |
| 216-S-14 | 567133 | | | | | | | | | | | | | |
| 216-S-19 | 567133 | | | | | | 3.17E-02 | 2.46E+00 | 2.75E-01 | 3.90E+00 | 2.35E-05 | | | |
| 216-S-20 | 567133 | | | | | | 2.63E-01 | 2.05E+01 | 2.29E+00 | 3.24E+01 | 1.95E-04 | | | |
| 216-S-22 | 567133 | | | | | | 1.55E-04 | 1.21E-02 | 1.35E-03 | 1.91E-02 | 1.15E-07 | | | |
| 216-S-26 | 567133 | | | | | | | 9.35E-04 | | | | | | |
| 216-S-12 | 567134 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-S-13 | 567134 | | | | | | 1.23E-02 | 9.58E-01 | 1.07E-01 | 1.52E+00 | 9.14E-06 | | | |
| 216-S-23 | 567134 | | | | | | 1.53E-03 | 1.19E-01 | 1.33E-02 | 1.88E-01 | 1.14E-06 | | | |
| 216-S-7 | 567134 | | | | | | 6.77E-01 | 5.27E+01 | 5.88E+00 | 8.34E+01 | 5.03E-04 | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 216-T-17 | 566136 | 1.38E-10 | | | | 1.58E+02 | | | | 4.74E-05 | 6.72E-03 | |
| 216-T-18 | 566136 | 1.38E-09 | | | | 2.89E+01 | | | | 6.35E-05 | 9.01E-03 | |
| 216-T-21 | 566136 | 8.56E-10 | | | | 1.74E+02 | | | | 2.33E-06 | 3.31E-04 | |
| 216-T-22 | 566136 | 4.14E-10 | | | | 8.11E+02 | | | | 4.67E-06 | 6.62E-04 | |
| 216-T-23 | 566136 | 3.59E-10 | | | | 5.87E+02 | | | | 2.33E-06 | 3.31E-04 | |
| 216-T-24 | 566136 | 4.42E-10 | | | | 6.26E+02 | | | | 1.94E-05 | 2.75E-03 | |
| 216-T-25 | 566136 | 1.38E-09 | | | | 3.71E+03 | | | | 2.12E-06 | 3.01E-04 | |
| 216-T-26 | 566136 | 8.02E-08 | | | | 6.39E+02 | | | | 3.50E-04 | 4.97E-02 | |
| 216-T-27 | 566136 | 4.09E-05 | | | | 2.04E+02 | | | | 1.69E-05 | 2.40E-03 | |
| 216-T-28 | 566136 | 1.96E-05 | | | | 4.06E+02 | | | | 9.10E-04 | 1.29E-01 | |
| 216-T-32 | 566136 | 4.44E-11 | | | | 3.13E+01 | | | | 5.30E-03 | 7.52E-01 | |
| 216-T-36 | 566136 | 5.24E-06 | | | | 1.24E+01 | | | | 2.75E-06 | 3.90E-04 | |
| 216-T-5 | 566136 | 8.25E-10 | | | | 3.07E+01 | | | | 1.06E-05 | 1.50E-03 | |
| 216-T-7 | 566136 | 1.02E-09 | | | | 6.86E+01 | | | | 2.12E-05 | 3.01E-03 | |
| 218-W-1 | 566136 | 8.83E-12 | | | | 1.44E+00 | | | | 1.06E-02 | 2.33E-01 | |
| 218-W-11 | 566136 | 3.13E-12 | | | | 9.40E-04 | | | | | | |
| 218-W-2 | 566136 | 5.72E-10 | | | | 4.14E+00 | | | | 2.12E-02 | 4.66E-01 | |
| 218-W-2A | 566136 | 2.51E-03 | | | | 2.47E+03 | | | | 4.07E-02 | 8.95E-01 | |
| 218-W-3 | 566136 | 1.32E-08 | | | | 8.15E+00 | | 6.54E+00 | | 1.06E+00 | 2.33E+01 | |
| 218-W-4A | 566136 | 8.42E-06 | | | | 3.54E+01 | | 2.73E+01 | | 5.96E+00 | 1.31E+02 | |
| 216-T-4B | 566137 | 8.67E-07 | | | | 1.28E+01 | | | | 1.62E-03 | 2.30E-01 | |
| 216-S-14 | 567133 | | | | | | | | | | | |
| 216-S-19 | 567133 | 3.89E-07 | | | | 3.86E+00 | | | | 3.63E-04 | 5.14E-02 | |
| 216-S-20 | 567133 | 2.49E-07 | | | | 1.01E+02 | | | | 8.75E-05 | 1.24E-02 | |
| 216-S-22 | 567133 | 1.41E-09 | | | | 1.37E+00 | | | | 1.06E-07 | 1.50E-05 | |
| 216-S-26 | 567133 | | | | | 6.83E-03 | | | | | | |
| 216-S-12 | 567134 | 1.38E-11 | | | | 1.24E+00 | | | | 1.16E-05 | 1.65E-03 | |
| 216-S-13 | 567134 | 2.36E-06 | | | | 2.77E+00 | | | | 2.12E-04 | 3.01E-02 | |
| 216-S-23 | 567134 | 3.49E-05 | | | | 5.68E+00 | | | | 9.03E-07 | 1.28E-04 | |
| 216-S-7 | 567134 | 1.30E-06 | | | | 3.48E+03 | | | | 6.03E-03 | 8.56E-01 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 216-S-9 | 567134 | 4.28E-01 | | | | | | 6.67E+02 | | | | | | |
| 216-U-12 | 567134 | 1.30E-02 | | | | | | 5.61E+01 | | | | | 1.88E-03 | |
| 216-U-16 | 567134 | 2.33E-01 | | | | | | 4.23E-02 | | | | | | |
| 216-U-17 | 567134 | 5.30E-05 | | | | | | | | | | | 6.97E+01 | |
| 216-U-8 | 567134 | 2.44E+00 | | | | | | 3.71E-01 | | | | | | |
| 218-W-9 | 567134 | | | | | | | 9.22E-04 | | | | | | |
| 216-U-1&2 | 567135 | 2.81E-01 | | | | | | 1.07E+01 | | | | | | |
| 216-U-15 | 567135 | 6.59E-04 | | | | | | 1.37E-01 | | | | | | |
| 216-U-4A | 567135 | 5.93E-05 | | | | | | 3.79E-01 | | | | | | |
| 216-U-4B | 567135 | 3.56E-04 | | | | | | 3.88E-01 | | | | | | |
| 216-U-5 | 567135 | 3.29E-04 | | | | | | 6.03E-02 | | | | | | |
| 216-U-6 | 567135 | 3.29E-04 | | | | | | 6.03E-02 | | | | | | |
| 216-W-LWC | 567135 | 3.89E-02 | | | | | | 8.48E-01 | | | | | 4.88E-06 | |
| 216-T-12 | 567136 | 6.59E-03 | | | | | | 1.06E+01 | | | | | | |
| 216-T-20 | 567136 | | | | | | | 1.26E+00 | | | | | | |
| 216-T-3 | 567136 | 2.21E+01 | | | | | | 2.52E+01 | | | | | | |
| 216-T-33 | 567136 | 3.29E-02 | | | | | | 7.97E-01 | | | | | | |
| 216-T-6 | 567136 | 2.57E+00 | | | | | | 3.42E+02 | | | | | | |
| 216-T-8 | 567136 | 3.29E-02 | | | | | | 1.17E+00 | | | | | | |
| 218-W-7 | 567136 | 4.61E-03 | | | | | | 3.92E+01 | | | | | | |
| 218-W-8 | 567136 | 1.98E-03 | | | | | | 6.40E+00 | | | | | | |
| 216-T-34 | 567137 | 7.05E-01 | | | | | | 4.91E+02 | | | | | | |
| 216-T-35 | 567137 | 4.36E-01 | | | | | | 3.45E+01 | | | | | | |
| 218-W-1A | 567137 | 1.32E+01 | | | | | | 4.08E+02 | | | | | | |
| 116-KW-1 | 568146 | | 1.10E+02 | | | 1.01E-03 | 4.00E-05 | 3.64E-03 | | 8.00E-05 | 9.50E-04 | | 8.19E+01 | |
| 116-KW-3 | 568146 | | | | | 1.02E-01 | 3.45E-04 | 4.05E-01 | 8.37E-01 | 2.01E-01 | 1.56E-01 | | 2.22E-01 | |
| 216-N-2 | 569140 | | | | | | | 2.24E-01 | | | | | | |
| 216-N-3 | 569140 | | | | | | | 2.51E-01 | | | | | | |
| 116-KE-1 | 569146 | | 1.10E+02 | | | | | 4.87E-01 | | | | | 5.65E+01 | |
| 116-KE-2 | 569146 | | 1.20E-01 | | | 1.11E+01 | | 6.62E-01 | 2.63E-03 | 1.70E-01 | 1.52E-02 | | 4.28E-01 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 216-S-9 | 567134 | | | | | | 1.00E-01 | 7.79E+00 | 8.69E-01 | 1.23E+01 | 7.43E-05 | | | |
| 216-U-12 | 567134 | | | | | | 1.54E-03 | 1.76E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-U-16 | 567134 | | | | | | | 9.76E-02 | | | | | | |
| 216-U-17 | 567134 | | | | | | | 2.25E-04 | | | | | | |
| 216-U-8 | 567134 | | | | | | 5.69E-01 | 4.43E+01 | 4.94E+00 | 7.01E+01 | 4.23E-04 | | | |
| 218-W-9 | 567134 | | | | | | | | | | | | | |
| 216-U-1&2 | 567135 | | | | | | 6.56E-02 | 5.11E+00 | 5.69E-01 | 8.07E+00 | 4.87E-05 | | | |
| 216-U-15 | 567135 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-U-4A | 567135 | | | | | | 1.39E-05 | 1.08E-03 | 1.20E-04 | 1.71E-03 | 1.03E-08 | | | |
| 216-U-4B | 567135 | | | | | | 8.31E-05 | 6.47E-03 | 7.22E-04 | 1.02E-02 | 6.17E-08 | | | |
| 216-U-5 | 567135 | | | | | | 7.70E-05 | 5.99E-03 | 6.68E-04 | 9.48E-03 | 5.71E-08 | | | |
| 216-U-6 | 567135 | | | | | | 7.70E-05 | 5.99E-03 | 6.68E-04 | 9.48E-03 | 5.71E-08 | | | |
| 216-W-LWC | 567135 | | | | | | 6.76E-04 | 2.14E-01 | 5.87E-03 | 8.32E-02 | 5.02E-07 | | | |
| 216-T-12 | 567136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-T-20 | 567136 | | | | | | | | | | | | | |
| 216-T-3 | 567136 | | | | | | 5.16E+00 | 4.02E+02 | 4.48E+01 | 6.35E+02 | 3.83E-03 | | | |
| 216-T-33 | 567136 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-T-6 | 567136 | | | | | | 6.00E-01 | 4.67E+01 | 5.21E+00 | 7.39E+01 | 4.46E-04 | | | |
| 216-T-8 | 567136 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 218-W-7 | 567136 | | | | | | 1.08E-03 | 4.09E-02 | 9.35E-03 | 1.33E-01 | 8.00E-07 | | | |
| 218-W-8 | 567136 | | | | | | 4.62E-04 | 1.75E-02 | 4.01E-03 | 5.69E-02 | 3.43E-07 | | | |
| 216-T-34 | 567137 | | | | | | 1.65E-01 | 1.28E+01 | 1.43E+00 | 2.03E+01 | 1.22E-04 | | | |
| 216-T-35 | 567137 | | | | | | 1.02E-01 | 7.93E+00 | 8.85E-01 | 1.25E+01 | 7.56E-05 | | | |
| 218-W-1A | 567137 | | | | | | 3.08E+00 | 1.17E+02 | 2.67E+01 | 3.79E+02 | 2.29E-03 | | | |
| 116-KW-1 | 568146 | | | | | | | | | | | | | |
| 116-KW-3 | 568146 | | | | | | | | | | | | | |
| 216-N-2 | 569140 | | | | | | | | | | | | | |
| 216-N-3 | 569140 | | | | | | | | | | | | | |
| 116-KE-1 | 569146 | | | | | | | | | | | | | |
| 116-KE-2 | 569146 | | | | | | | 1.70E-02 | 1.90E-03 | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 216-S-9 | 567134 | 2.87E-04 | | | | 4.73E+02 | | | | 7.91E-05 | 1.12E-02 | |
| 216-U-12 | 567134 | 2.18E-06 | | | | 1.12E+02 | | | | 4.74E-03 | 6.72E-01 | |
| 216-U-16 | 567134 | | | | | 3.50E-02 | | | | 4.14E-05 | 5.88E-03 | |
| 216-U-17 | 567134 | | | | | | | | | 3.35E-06 | 4.75E-04 | |
| 216-U-8 | 567134 | 4.16E-08 | | | | 3.68E-01 | | | | 5.61E-02 | 7.95E+00 | |
| 218-W-9 | 567134 | 5.77E-14 | | | | 8.15E-04 | | | | | | |
| 216-U-1&2 | 567135 | 6.08E-07 | | | | 8.41E+00 | | | | 4.91E-03 | 6.97E-01 | |
| 216-U-15 | 567135 | 1.09E-10 | | | | 1.34E-01 | | | | 5.29E-06 | 7.51E-04 | |
| 216-U-4A | 567135 | 1.23E-07 | | | | 2.09E-01 | | | | 2.07E-05 | 2.93E-03 | |
| 216-U-4B | 567135 | | | | | 1.92E-01 | | | | | | |
| 216-U-5 | 567135 | 1.74E-13 | | | | 5.91E-02 | | | | 8.47E-04 | 1.20E-01 | |
| 216-U-6 | 567135 | 1.74E-13 | | | | 5.91E-02 | | | | 8.47E-04 | 1.20E-01 | |
| 216-W-LWC | 567135 | | | | | 7.67E-01 | | | | 4.01E-06 | 5.69E-04 | |
| 216-T-12 | 567136 | 1.38E-10 | | | | 8.30E+00 | | | | 1.06E-04 | 1.50E-02 | |
| 216-T-20 | 567136 | 7.44E-12 | | | | 1.20E+00 | | | | 1.17E-05 | 1.66E-03 | |
| 216-T-3 | 567136 | 5.22E-12 | | | | 2.25E+01 | | | | | | |
| 216-T-33 | 567136 | 6.86E-08 | | | | 7.86E-01 | | | | 1.06E-05 | 1.50E-03 | |
| 216-T-6 | 567136 | 6.07E-11 | | | | 3.56E+02 | | | | 5.30E-05 | 7.52E-03 | |
| 216-T-8 | 567136 | 6.63E-12 | | | | 1.15E+00 | | | | 1.05E-05 | 1.49E-03 | |
| 218-W-7 | 567136 | 2.30E-08 | | | | 3.48E+01 | | | | 1.06E-05 | 2.33E-04 | |
| 218-W-8 | 567136 | 3.61E-11 | | | | 5.63E+00 | | | | 4.54E-06 | 9.98E-05 | |
| 216-T-34 | 567137 | 5.98E-06 | | | | 5.12E+02 | | | | 9.59E-06 | 1.36E-03 | |
| 216-T-35 | 567137 | 1.44E-05 | | | | 3.42E+01 | | | | 1.14E-04 | 1.62E-02 | |
| 218-W-1A | 567137 | 5.24E-09 | | | | 3.59E+02 | | | | 1.36E-02 | 2.99E-01 | |
| 116-KW-1 | 568146 | | | | | 6.22E-03 | | | | | 1.10E-04 | |
| 116-KW-3 | 568146 | | | | | 5.68E-02 | | | | | | |
| 216-N-2 | 569140 | 4.73E-14 | | | | 2.14E-01 | | | | | | |
| 216-N-3 | 569140 | 1.49E-12 | | | | 2.41E-01 | | | | | | |
| 116-KE-1 | 569146 | | | | | 4.87E-01 | | | | | | |
| 116-KE-2 | 569146 | | | | | 2.13E+00 | | | | 2.00E-05 | 2.08E-03 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 116-KE-4 | 569146 | | | | | 2.95E-01 | 6.27E-04 | 1.35E+00 | 1.20E+00 | 3.30E-01 | 7.35E-02 | | 7.40E-02 | |
| 118-K-1 | 569146 | | 1.56E+00 | | | 2.63E+03 | | 7.60E+00 | 4.72E+01 | 8.46E+01 | | | 7.00E+00 | |
| 116-K-1 | 569147 | | | | | 2.83E+00 | 1.13E-02 | 1.82E+01 | 6.57E+00 | 2.11E+00 | 1.07E-01 | | | |
| 116-K-2 | 569147 | | 9.39E-01 | | | 5.40E+01 | 7.51E-01 | 1.49E+02 | 7.23E+02 | 2.11E+02 | 1.07E+01 | | 1.57E+01 | |
| 216-N-4 | 570140 | 6.59E-03 | | | | | | 2.31E-01 | | | | | | |
| 216-N-5 | 570140 | | | | | | | 2.51E-01 | | | | | | |
| 216-N-6 | 571140 | 6.59E-03 | | | | | | 2.31E-01 | | | | | | |
| 216-N-7 | 571140 | | | | | | | 2.51E-01 | | | | | | |
| 116-N-1 | 571149 | | | | | 3.80E+03 | 5.10E+01 | 2.30E+03 | | | | | | |
| 116-N-3 | 571149 | | | | | 1.30E+02 | 1.40E-01 | 3.50E+02 | | | | | | |
| UPR-100-N-12 | 571149 | | | 3.40E-02 | | 1.90E-01 | | 4.00E-01 | | | | | | |
| UPR-100-N-3 | 571149 | | | 1.40E-01 | | 7.00E-02 | | 2.50E-01 | | | | | 1.00E+00 | |
| UPR-100-N-5 | 571149 | | | | | 4.13E+00 | | | | | | | | |
| UPR-100-N-6 | 571149 | | | | | 2.00E-01 | | 3.00E-03 | | | | | | |
| UPR-100-N-7 | 571149 | | | 2.00E-01 | | 5.00E+00 | | | | | | 1.20E+00 | | |
| 118-D-2 | 572150 | | 6.60E-01 | | | 8.49E+02 | | 1.50E+00 | 1.63E+01 | 2.79E+01 | | | 3.50E+00 | |
| 216-B-14 | 573134 | 1.65E-01 | | | | | | 3.98E+02 | | | | | | |
| 216-B-15 | 573134 | 3.29E-02 | | | | | | 2.71E+02 | | | | | | |
| 216-B-16 | 573134 | 6.59E-02 | | | | | | 8.86E+02 | | | | | | |
| 216-B-17 | 573134 | 6.59E-02 | | | | | | 2.65E+02 | | | | | | |
| 216-B-18 | 573134 | 6.59E-02 | | | | | | 3.07E+02 | | | | | | |
| 216-B-19 | 573134 | 6.59E-02 | | | | | | 3.35E+02 | | | | | | |
| 216-B-20 | 573134 | 8.56E-03 | | | | | | 1.68E+03 | | | | | | |
| 216-B-21 | 573134 | 6.78E-02 | | | | | | 6.52E+02 | | | | | | |
| 216-B-22 | 573134 | 1.71E-02 | | | | | | 2.20E+02 | | | | | | |
| 216-B-23 | 573134 | 1.19E-02 | | | | | | 1.64E+02 | | | | | | |
| 216-B-24 | 573134 | 5.07E-02 | | | | | | 1.96E+02 | | | | | | |
| 216-B-25 | 573134 | 1.32E-02 | | | | | | 1.40E+02 | | | | | | |
| 216-B-26 | 573134 | 1.65E-02 | | | | | | 1.34E+03 | | | | | | |
| 216-B-27 | 573134 | 4.61E-03 | | | | | | 2.96E+02 | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 116-KE-4 | 569146 | | | | | | | 3.00E-04 | | | | | | |
| 118-K-1 | 569146 | | | 3.76E+02 | | | | 2.16E-01 | 1.38E-02 | | | | | |
| 116-K-1 | 569147 | | | | | | 1.31E-02 | 1.26E-01 | 1.40E-02 | | | | | |
| 116-K-2 | 569147 | | | 1.41E+02 | | | 1.78E-01 | 4.50E+00 | 5.00E-01 | | | | | |
| 216-N-4 | 570140 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-N-5 | 570140 | | | | | | | | | | | | | |
| 216-N-6 | 571140 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-N-7 | 571140 | | | | | | | | | | | | | |
| 116-N-1 | 571149 | | | | | | | 1.80E+01 | | | | | | |
| 116-N-3 | 571149 | | | | | | | 2.60E+00 | | | | | | |
| UPR-100-N-12 | 571149 | | | | | | | 5.70E-04 | | | | | | |
| UPR-100-N-3 | 571149 | | | | | | | 4.00E-04 | | | | | | |
| UPR-100-N-5 | 571149 | | | | | | | | | | | | | |
| UPR-100-N-6 | 571149 | 4.00E-02 | | | | | | | | | | | | 3.00E-03 |
| UPR-100-N-7 | 571149 | 3.00E-01 | 1.00E-01 | | | | | | | | | | | 9.00E-02 |
| 118-D-2 | 572150 | | | 9.24E+01 | | | | | | | | | | |
| 216-B-14 | 573134 | | | | | | 3.85E-02 | 2.99E+00 | 3.34E-01 | 4.74E+00 | 2.86E-05 | | | |
| 216-B-15 | 573134 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-B-16 | 573134 | | | | | | 1.54E-02 | 1.20E+00 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 216-B-17 | 573134 | | | | | | 1.54E-02 | 1.20E+00 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 216-B-18 | 573134 | | | | | | 1.54E-02 | 1.20E+00 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 216-B-19 | 573134 | | | | | | 1.54E-02 | 1.20E+00 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 216-B-20 | 573134 | | | | | | 2.00E-03 | 1.56E-01 | 1.74E-02 | 2.46E-01 | 1.49E-06 | | | |
| 216-B-21 | 573134 | | | | | | 1.59E-02 | 1.23E+00 | 1.38E-01 | 1.95E+00 | 1.18E-05 | | | |
| 216-B-22 | 573134 | | | | | | 4.00E-03 | 3.12E-01 | 3.47E-02 | 4.93E-01 | 2.97E-06 | | | |
| 216-B-23 | 573134 | | | | | | 2.77E-03 | 2.16E-01 | 2.41E-02 | 3.41E-01 | 2.06E-06 | | | |
| 216-B-24 | 573134 | | | | | | 1.19E-02 | 9.23E-01 | 1.03E-01 | 1.46E+00 | 8.80E-06 | | | |
| 216-B-25 | 573134 | | | | | | 3.08E-03 | 2.40E-01 | 2.67E-02 | 3.79E-01 | 2.29E-06 | | | |
| 216-B-26 | 573134 | | | | | | 3.85E-03 | 2.99E-01 | 3.34E-02 | 4.74E-01 | 2.86E-06 | | | |
| 216-B-27 | 573134 | | | | | | 1.08E-03 | 8.39E-02 | 9.35E-03 | 1.33E-01 | 8.00E-07 | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 116-KE-4 | 569146 | | | | | 1.26E-01 | | | | | | |
| 118-K-1 | 569146 | | 2.50E+01 | | | 7.60E+00 | | | | | | |
| 116-K-1 | 569147 | | | | | 5.81E-01 | | | | | | |
| 116-K-2 | 569147 | | | | | 9.00E+00 | | | | 2.78E-03 | 3.17E-01 | |
| 216-N-4 | 570140 | 3.32E-13 | | | | 2.21E-01 | | | | 1.06E-05 | 1.50E-03 | |
| 216-N-5 | 570140 | 1.49E-12 | | | | 2.41E-01 | | | | | | |
| 216-N-6 | 571140 | 3.32E-13 | | | | 2.21E-01 | | | | 1.06E-05 | 1.50E-03 | |
| 216-N-7 | 571140 | 1.49E-12 | | | | 2.41E-01 | | | | | | |
| 116-N-1 | 571149 | 1.20E+02 | | | | 1.80E+03 | | | | | | |
| 116-N-3 | 571149 | 6.60E-01 | | | | 2.00E+02 | | | | | | |
| UPR-100-N-12 | 571149 | | | | | 1.26E-01 | | | | | | |
| UPR-100-N-3 | 571149 | | | | | 8.00E-01 | | | | | | |
| UPR-100-N-5 | 571149 | | | | | | | | | | | |
| UPR-100-N-6 | 571149 | | | | | | | | | | | |
| UPR-100-N-7 | 571149 | | | | | | 8.00E-01 | | | | | 2.00E-01 |
| 118-D-2 | 572150 | | | | | 1.50E+00 | | | | | | |
| 216-B-14 | 573134 | 3.24E-06 | | | | 4.56E+02 | | | | 5.08E-04 | 7.21E-02 | |
| 216-B-15 | 573134 | 1.45E-06 | | | | 2.66E+02 | | | | 2.44E-04 | 3.46E-02 | |
| 216-B-16 | 573134 | 7.13E-07 | | | | 8.92E+02 | | | | 7.49E-04 | 1.06E-01 | |
| 216-B-17 | 573134 | 1.37E-08 | | | | 2.34E+02 | | | | 8.26E-04 | 1.17E-01 | |
| 216-B-18 | 573134 | 1.04E-06 | | | | 2.74E+02 | | | | 5.50E-04 | 7.80E-02 | |
| 216-B-19 | 573134 | 5.58E-07 | | | | 2.97E+02 | | | | 4.24E-04 | 6.01E-02 | |
| 216-B-20 | 573134 | 5.47E-07 | | | | 1.34E+03 | | | | 8.19E-04 | 1.16E-01 | |
| 216-B-21 | 573134 | 8.07E-07 | | | | 8.01E+02 | | | | 1.58E-03 | 2.23E-01 | |
| 216-B-22 | 573134 | 1.65E-06 | | | | 3.75E+02 | | | | 9.73E-04 | 1.38E-01 | |
| 216-B-23 | 573134 | 8.21E-07 | | | | 1.76E+02 | | | | 3.64E-04 | 5.16E-02 | |
| 216-B-24 | 573134 | 1.27E-06 | | | | 2.15E+02 | | | | 5.74E-04 | 8.14E-02 | |
| 216-B-25 | 573134 | 8.55E-07 | | | | 2.03E+02 | | | | 3.57E-04 | 5.06E-02 | |
| 216-B-26 | 573134 | 1.94E-06 | | | | 1.38E+03 | | | | 1.37E-03 | 1.95E-01 | |
| 216-B-27 | 573134 | 1.91E-06 | | | | 5.43E+02 | | | | 7.98E-04 | 1.13E-01 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 216-B-28 | 573134 | 3.69E-02 | | | | | | 7.12E+01 | | | | | | |
| 216-B-29 | 573134 | 7.24E-03 | | | | | | 1.40E+02 | | | | | | |
| 216-B-30 | 573134 | 1.38E-02 | | | | | | 3.34E+03 | | | | | | |
| 216-B-31 | 573134 | 3.42E-02 | | | | | | 1.19E+02 | | | | | | |
| 216-B-32 | 573134 | 1.71E-02 | | | | | | 2.28E+02 | | | | | | |
| 216-B-33 | 573134 | 7.77E-02 | | | | | | 2.68E+02 | | | | | | |
| 216-B-34 | 573134 | 3.75E-02 | | | | | | 3.38E+01 | | | | | | |
| 216-B-52 | 573134 | 1.25E-01 | | | | | | 3.19E+02 | | | | | | |
| 216-B-53A | 573134 | 6.59E-01 | | | | | | 1.79E-01 | | | | | | |
| 216-B-53B | 573134 | 3.29E-02 | | | | | | 1.23E+01 | | | | | | |
| 216-B-54 | 573134 | 3.29E-02 | | | | | | 5.27E-01 | | | | | | |
| 216-B-58 | 573134 | 4.41E-02 | | | | | | 1.43E+01 | | | | | | |
| 216-B-10A | 573136 | 6.45E-02 | | | | | | 2.68E+00 | | | | | | |
| 216-B-10B | 573136 | 3.12E-07 | | | | | | 3.35E-04 | | | | | | |
| 216-B-12 | 573136 | 2.46E+00 | | | | | | 1.49E+03 | | | | | | |
| 216-B-13 | 573136 | | | | | 5.31E-04 | | 6.99E-05 | | | | | | |
| 216-B-5 | 573136 | 2.81E+01 | | | | | | 8.32E+01 | | | | | | |
| 216-B-55 | 573136 | 4.30E-03 | | | | | | 3.42E+01 | | | | | 2.68E+00 | |
| 216-B-59 | 573136 | | | | | | | 5.36E-02 | | | | | | |
| 216-B-60 | 573136 | 5.27E-04 | | | | | | 9.50E+00 | | | | | | |
| 216-B-62 | 573136 | 1.08E-01 | | | | | | 3.44E+02 | | | | | 1.47E+01 | |
| 216-B-9 | 573136 | 1.15E+00 | | | | | | 1.39E+01 | | | | | | |
| 218-E-2A | 573136 | | | | | 1.02E+04 | | 2.77E+03 | | | | | | |
| 218-E-4 | 573136 | 6.59E-02 | | | | | | 9.40E-02 | | | | | | |
| 218-E-7 | 573136 | 6.59E-03 | | | | | | 4.96E+00 | | | | | | |
| 216-B-11A&B | 573137 | 2.63E-02 | | | | | | 4.38E+01 | | | | | | |
| 216-B-2-2 | 573137 | 2.77E-04 | | | | | | 1.48E+02 | | | | | | |
| 216-B-2-3 | 573137 | | | | | | | 4.32E+02 | | | | | | |
| 216-B-35 | 573137 | 7.90E-03 | | | | | | 4.60E+02 | | | | | | |
| 216-B-36 | 573137 | 5.27E-03 | | | | | | 8.56E+02 | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 216-B-28 | 573134 | | | | | | 8.62E-03 | 6.71E-01 | 7.48E-02 | 1.06E+00 | 6.40E-06 | | | |
| 216-B-29 | 573134 | | | | | | 1.69E-03 | 1.32E-01 | 1.47E-02 | 2.08E-01 | 1.26E-06 | | | |
| 216-B-30 | 573134 | | | | | | 3.23E-03 | 2.52E-01 | 2.81E-02 | 3.98E-01 | 2.40E-06 | | | |
| 216-B-31 | 573134 | | | | | | 8.00E-03 | 6.23E-01 | 6.95E-02 | 9.86E-01 | 5.94E-06 | | | |
| 216-B-32 | 573134 | | | | | | 4.00E-03 | 3.12E-01 | 3.47E-02 | 4.93E-01 | 2.97E-06 | | | |
| 216-B-33 | 573134 | | | | | | 1.82E-02 | 1.41E+00 | 1.58E-01 | 2.24E+00 | 1.35E-05 | | | |
| 216-B-34 | 573134 | | | | | | 8.77E-03 | 6.83E-01 | 7.62E-02 | 1.08E+00 | 6.51E-06 | | | |
| 216-B-52 | 573134 | | | | | | 2.92E-02 | 2.28E+00 | 2.54E-01 | 3.60E+00 | 2.17E-05 | | | |
| 216-B-53A | 573134 | | | | | | 1.54E-01 | 1.20E+01 | 1.34E+00 | 1.90E+01 | 1.14E-04 | | | |
| 216-B-53B | 573134 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-B-54 | 573134 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-B-58 | 573134 | | | | | | 1.03E-02 | 8.02E-01 | 8.95E-02 | 1.27E+00 | 7.66E-06 | | | |
| 216-B-10A | 573136 | | | | | | 1.51E-02 | 1.17E+00 | 1.31E-01 | 1.86E+00 | 1.12E-05 | | | |
| 216-B-10B | 573136 | | | | | | 7.29E-08 | 5.68E-06 | 6.33E-07 | 8.98E-06 | 5.42E-11 | | | |
| 216-B-12 | 573136 | | | | | | 5.76E-01 | 4.48E+01 | 5.00E+00 | 7.09E+01 | 4.27E-04 | | | |
| 216-B-13 | 573136 | | | | | | | 4.74E-05 | 2.91E-06 | | | | | |
| 216-B-5 | 573136 | | | | | | 6.57E+00 | 5.11E+02 | 5.71E+01 | 8.09E+02 | 4.88E-03 | | | |
| 216-B-55 | 573136 | | | | | | 1.00E-03 | 8.13E-02 | 8.73E-03 | 1.24E-01 | 7.46E-07 | | | |
| 216-B-59 | 573136 | | | | | | | | | | | | | |
| 216-B-60 | 573136 | | | | | | 1.23E-04 | 9.58E-03 | 1.07E-03 | 1.52E-02 | 9.14E-08 | | | |
| 216-B-62 | 573136 | | | | | | 1.16E-03 | 1.51E-01 | 1.01E-02 | 1.43E-01 | 8.63E-07 | | | |
| 216-B-9 | 573136 | | | | | | 2.68E-01 | 2.09E+01 | 2.33E+00 | 3.30E+01 | 1.99E-04 | | | |
| 218-E-2A | 573136 | | | | | | | 1.32E+03 | | | | | | |
| 218-E-4 | 573136 | | | | | | 1.54E-02 | 5.84E-01 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 218-E-7 | 573136 | | | | | | 1.54E-03 | 5.84E-02 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-B-11A&B | 573137 | | | | | | 6.16E-03 | 4.80E-01 | 5.35E-02 | 7.58E-01 | 4.57E-06 | | | |
| 216-B-2-2 | 573137 | | | | | | 6.46E-05 | 5.03E-03 | 5.61E-04 | 7.96E-03 | 4.80E-08 | | | |
| 216-B-2-3 | 573137 | | | | | | | | | | | | | |
| 216-B-35 | 573137 | | | | | | 1.85E-03 | 1.44E-01 | 1.60E-02 | 2.27E-01 | 1.37E-06 | | | |
| 216-B-36 | 573137 | | | | | | 1.23E-03 | 9.58E-02 | 1.07E-02 | 1.52E-01 | 9.14E-07 | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 216-B-28 | 573134 | 5.71E-07 | | | | 1.10E+02 | | | | 7.00E-04 | 9.93E-02 | |
| 216-B-29 | 573134 | 1.76E-06 | | | | 1.98E+02 | | | | 8.05E-04 | 1.14E-01 | |
| 216-B-30 | 573134 | 4.25E-07 | | | | 2.04E+03 | | | | 2.05E-04 | 2.91E-02 | |
| 216-B-31 | 573134 | 6.66E-07 | | | | 1.98E+02 | | | | 2.85E-04 | 4.04E-02 | |
| 216-B-32 | 573134 | 4.15E-07 | | | | 2.83E+02 | | | | 2.57E-05 | 3.64E-03 | |
| 216-B-33 | 573134 | 3.54E-07 | | | | 1.59E+02 | | | | 4.67E-05 | 6.62E-03 | |
| 216-B-34 | 573134 | 1.51E-07 | | | | 4.40E+01 | | | | 1.98E-04 | 2.81E-02 | |
| 216-B-52 | 573134 | 1.41E-06 | | | | 1.63E+02 | | | | 6.99E-05 | 9.91E-03 | |
| 216-B-53A | 573134 | 1.36E-07 | | | | 1.77E-01 | | | | 5.29E-05 | 7.51E-03 | |
| 216-B-53B | 573134 | 2.06E-08 | | | | 1.37E+01 | | | | 2.11E-05 | 3.00E-03 | |
| 216-B-54 | 573134 | 1.57E-07 | | | | 5.25E-01 | | | | 2.11E-05 | 3.00E-03 | |
| 216-B-58 | 573134 | 4.69E-07 | | | | 1.54E+01 | | | | 2.13E-05 | 3.02E-03 | |
| 216-B-10A | 573136 | 1.48E-11 | | | | 4.17E+00 | | | | 2.11E-05 | 3.00E-03 | |
| 216-B-10B | 573136 | 2.89E-12 | | | | 4.64E-04 | | | | 1.74E-09 | 2.47E-07 | |
| 216-B-12 | 573136 | 5.88E-05 | | | | 8.49E+02 | | | | 4.87E-02 | 6.91E+00 | |
| 216-B-13 | 573136 | 2.89E-12 | | | | 1.98E-04 | | | | 2.49E-07 | | |
| 216-B-5 | 573136 | 1.03E-11 | | | | 7.95E+01 | | | | | | |
| 216-B-55 | 573136 | 5.01E-05 | | | | 2.77E+01 | | | | 1.88E-04 | 2.66E-02 | |
| 216-B-59 | 573136 | | | | | 7.05E-02 | | | | | | |
| 216-B-60 | 573136 | | | | | 4.82E+00 | | | | 1.67E-03 | 2.37E-01 | |
| 216-B-62 | 573136 | 4.92E-03 | | | | 2.84E+02 | | | | 7.00E-05 | 9.93E-03 | |
| 216-B-9 | 573136 | 8.07E-11 | | | | 1.55E+01 | | | | 1.06E-04 | 1.50E-02 | |
| 218-E-2A | 573136 | 2.51E-03 | | | | | | | | 5.82E+00 | | |
| 218-E-4 | 573136 | 1.50E-11 | | | | 8.33E-02 | | | | 1.51E-05 | 3.33E-04 | |
| 218-E-7 | 573136 | 2.48E-11 | | | | 4.36E+00 | | | | 1.51E-05 | 3.33E-04 | |
| 216-B-11A&B | 573137 | 4.25E-10 | | | | 2.45E+01 | | | | 3.18E-05 | 4.51E-03 | |
| 216-B-2-2 | 573137 | | | | | 2.95E+02 | | | | 1.10E-07 | 1.56E-05 | |
| 216-B-2-3 | 573137 | | | | | 8.64E+02 | | | | | | |
| 216-B-35 | 573137 | 3.16E-09 | | | | 3.71E+02 | | | | 3.90E-05 | 5.53E-03 | |
| 216-B-36 | 573137 | 6.50E-09 | | | | 7.19E+02 | | | | 3.72E-05 | 5.28E-03 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 216-B-37 | 573137 | 1.32E-02 | | | | | | 2.65E+03 | | | | | | |
| 216-B-38 | 573137 | 7.90E-03 | | | | | | 1.19E+03 | | | | | | |
| 216-B-39 | 573137 | 9.94E-03 | | | | | | 3.86E+02 | | | | | | |
| 216-B-40 | 573137 | 6.59E-03 | | | | | | 4.15E+02 | | | | | | |
| 216-B-41 | 573137 | 1.98E-03 | | | | | | 7.76E+02 | | | | | | |
| 216-B-42 | 573137 | 6.59E-02 | | | | | | 5.48E+02 | | | | | | |
| 216-B-43 | 573137 | 3.29E-03 | | | | | | 8.30E+02 | | | | | | |
| 216-B-44 | 573137 | 9.88E-02 | | | | | | 1.80E+03 | | | | | | |
| 216-B-45 | 573137 | 6.59E-02 | | | | | | 2.49E+03 | | | | | | |
| 216-B-46 | 573137 | 1.32E-01 | | | | | | 8.09E+02 | | | | | | |
| 216-B-47 | 573137 | 3.29E-02 | | | | | | 3.92E+02 | | | | | | |
| 216-B-48 | 573137 | 3.29E-02 | | | | | | 9.45E+02 | | | | | | |
| 216-B-49 | 573137 | 9.88E-02 | | | | | | 1.50E+03 | | | | | | |
| 216-B-50 | 573137 | 1.57E-03 | | | | | | 1.04E+02 | | | | | | |
| 216-B-57 | 573137 | 1.23E-03 | | | | | | 4.45E+02 | | | | | | |
| 216-B-7A&B | 573137 | 2.83E+01 | | | | | | 2.29E+03 | | | | | | |
| 216-B-8 | 573137 | 1.98E-01 | | | | | | 4.45E+01 | | | | | | |
| 218-E-2 | 573137 | 5.27E+00 | | | | | | 2.13E+02 | | | | | | |
| 218-E-5 | 573137 | 4.08E+00 | | | | | | 7.07E+01 | | | | | | |
| 218-E-5A | 573137 | 9.09E+00 | | | | | | 1.65E+02 | | | | | | |
| 118-D-1 | 573150 | | | | | 6.16E+01 | | | | | | | | |
| 116-D-1A | 573151 | | | | | 1.38E-01 | 6.10E-04 | 1.08E+00 | 7.23E-01 | 1.13E-01 | 3.47E-02 | | 8.81E-01 | |
| 116-D-1B | 573151 | | | | | 6.75E-02 | 3.10E-04 | 5.13E-01 | 2.83E-01 | 4.27E-02 | 2.78E-01 | | 1.26E-01 | |
| 116-D-3 | 573151 | | | | | | | 4.09E-02 | | | | | | |
| 116-D-4 | 573151 | | | | | | | 4.09E-02 | | | | | | |
| 116-DR-3 | 573151 | | | | | 1.01E-02 | 1.00E-05 | 3.56E-02 | 1.97E-02 | 3.09E-03 | | | 2.08E-01 | |
| 116-DR-4 | 573151 | | | | | 1.18E-03 | | 3.81E-02 | 3.15E-03 | | 1.80E-04 | | | |
| 116-DR-7 | 573151 | | | | | | | 5.00E-02 | | | | | | |
| 116-DR-8 | 573151 | | | | | | | 5.00E-04 | | | | | | |
| 118-D-3 | 573151 | | 6.60E-01 | | | 5.90E+02 | | 1.13E+00 | 1.47E+01 | 2.64E+01 | | | 3.50E+00 | |





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*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 216-B-37 | 573137 | | | | | | 3.08E-03 | 2.40E-01 | 2.67E-02 | 3.79E-01 | 2.29E-06 | | | |
| 216-B-38 | 573137 | | | | | | 1.85E-03 | 1.44E-01 | 1.60E-02 | 2.27E-01 | 1.37E-06 | | | |
| 216-B-39 | 573137 | | | | | | 2.32E-03 | 1.81E-01 | 2.02E-02 | 2.86E-01 | 1.73E-06 | | | |
| 216-B-40 | 573137 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-B-41 | 573137 | | | | | | 4.62E-04 | 3.59E-02 | 4.01E-03 | 5.69E-02 | 3.43E-07 | | | |
| 216-B-42 | 573137 | | | | | | 1.54E-02 | 1.20E+00 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 216-B-43 | 573137 | | | | | | 7.70E-04 | 5.99E-02 | 6.68E-03 | 9.48E-02 | 5.71E-07 | | | |
| 216-B-44 | 573137 | | | | | | 2.31E-02 | 1.80E+00 | 2.00E-01 | 2.84E+00 | 1.71E-05 | | | |
| 216-B-45 | 573137 | | | | | | 1.54E-02 | 1.20E+00 | 1.34E-01 | 1.90E+00 | 1.14E-05 | | | |
| 216-B-46 | 573137 | | | | | | 3.08E-02 | 2.40E+00 | 2.67E-01 | 3.79E+00 | 2.29E-05 | | | |
| 216-B-47 | 573137 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-B-48 | 573137 | | | | | | 7.70E-03 | 5.99E-01 | 6.68E-02 | 9.48E-01 | 5.71E-06 | | | |
| 216-B-49 | 573137 | | | | | | 2.31E-02 | 2.63E+02 | 2.00E-01 | 2.84E+00 | 1.71E-05 | | | |
| 216-B-50 | 573137 | | | | | | 3.68E-04 | 2.87E-02 | 3.19E-03 | 4.53E-02 | 2.73E-07 | | | |
| 216-B-57 | 573137 | | | | | | 2.88E-04 | 2.24E-02 | 2.50E-03 | 3.54E-02 | 2.14E-07 | | | |
| 216-B-7A&B | 573137 | | | | | | 6.62E+00 | 5.15E+02 | 5.75E+01 | 8.15E+02 | 4.91E-03 | | | |
| 216-B-8 | 573137 | | | | | | 4.62E-02 | 3.59E+00 | 4.01E-01 | 5.69E+00 | 3.43E-05 | | | |
| 218-E-2 | 573137 | | | | | | 1.23E+00 | 4.67E+01 | 1.07E+01 | 1.52E+02 | 9.14E-04 | | | |
| 218-E-5 | 573137 | | | | | | 9.54E-01 | 3.62E+01 | 8.29E+00 | 1.18E+02 | 7.08E-04 | | | |
| 218-E-5A | 573137 | | | | | | 2.12E+00 | 8.06E+01 | 1.84E+01 | 2.62E+02 | 1.58E-03 | | | |
| 118-D-1 | 573150 | | | | | | | | | | | | | |
| 116-D-1A | 573151 | | | | | | | 1.80E-02 | 2.00E-03 | | | | | |
| 116-D-1B | 573151 | | | | | | | 6.03E-03 | 6.70E-04 | | | | | |
| 116-D-3 | 573151 | | | | | | | | | | | | | |
| 116-D-4 | 573151 | | | | | | | | | | | | | |
| 116-DR-3 | 573151 | | | | | | | 2.97E-03 | 3.30E-04 | | | | | |
| 116-DR-4 | 573151 | | | | | | | 9.00E-05 | 1.00E-05 | | | | | |
| 116-DR-7 | 573151 | | | | | | | | | | | | | |
| 116-DR-8 | 573151 | | | | | | | | | | | | | |
| 118-D-3 | 573151 | | | 5.18E+01 | | | | | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 216-B-37 | 573137 | 6.90E-09 | | | | 1.31E+03 | | | | 8.47E-06 | 1.20E-03 | |
| 216-B-38 | 573137 | 7.73E-09 | | | | 1.73E+03 | | | | 9.87E-05 | 1.40E-02 | |
| 216-B-39 | 573137 | 5.75E-10 | | | | 2.03E+02 | | | | 1.35E-05 | 1.92E-03 | |
| 216-B-40 | 573137 | 3.37E-09 | | | | 3.77E+02 | | | | 8.19E-05 | 1.16E-02 | |
| 216-B-41 | 573137 | 1.81E-09 | | | | 4.09E+02 | | | | 1.75E-05 | 2.48E-03 | |
| 216-B-42 | 573137 | 4.13E-08 | | | | 9.68E+02 | | | | 1.59E-03 | 2.25E-01 | |
| 216-B-43 | 573137 | 6.90E-10 | | | | 1.27E+03 | | | | 3.18E-05 | 4.51E-03 | |
| 216-B-44 | 573137 | 1.40E-07 | | | | 2.70E+03 | | | | 5.29E-06 | 7.51E-04 | |
| 216-B-45 | 573137 | 4.68E-07 | | | | 3.00E+03 | | | | 1.59E-05 | 2.25E-03 | |
| 216-B-46 | 573137 | 7.70E-07 | | | | 1.35E+03 | | | | 4.45E-04 | 6.31E-02 | |
| 216-B-47 | 573137 | 5.23E-07 | | | | 5.86E+02 | | | | 1.59E-05 | 2.25E-03 | |
| 216-B-48 | 573137 | 1.87E-07 | | | | 1.29E+03 | | | | 5.30E-06 | 7.52E-04 | |
| 216-B-49 | 573137 | 6.60E-07 | | | | 2.46E+03 | | | | 7.42E-04 | 1.05E-01 | |
| 216-B-50 | 573137 | 1.08E-06 | | | | 5.59E+01 | | | | 6.66E-07 | 9.44E-05 | |
| 216-B-57 | 573137 | 4.76E-06 | | | | 2.20E+02 | | | | 2.08E-06 | 2.95E-04 | |
| 216-B-7A&B | 573137 | 2.81E-09 | | | | 4.45E+03 | | | | 4.24E-04 | 6.02E-02 | |
| 216-B-8 | 573137 | 7.12E-11 | | | | 3.02E+01 | | | | 1.06E-04 | 1.50E-02 | |
| 218-E-2 | 573137 | 2.39E-09 | | | | 1.88E+02 | | | | 4.54E-03 | 9.98E-02 | |
| 218-E-5 | 573137 | 9.92E-09 | | | | 6.27E+01 | | | | 1.81E-03 | 3.99E-02 | |
| 218-E-5A | 573137 | 1.40E-07 | | | | 1.47E+02 | | | | 1.81E-03 | 3.99E-02 | |
| 118-D-1 | 573150 | | | | | | | | | | | |
| 116-D-1A | 573151 | | | | | 1.23E-01 | | | | 3.00E-05 | 3.76E-03 | |
| 116-D-1B | 573151 | | | | | 1.64E-01 | | | | 2.00E-05 | 2.48E-03 | |
| 116-D-3 | 573151 | | | | | 4.09E-02 | | | | | | |
| 116-D-4 | 573151 | | | | | 4.09E-02 | | | | | | |
| 116-DR-3 | 573151 | | | | | 5.15E-02 | | | | | | |
| 116-DR-4 | 573151 | | | | | 4.34E-03 | | | | | | |
| 116-DR-7 | 573151 | | | | | 5.00E-02 | | | | | | |
| 116-DR-8 | 573151 | | | | | 5.00E-04 | | | | | | |
| 118-D-3 | 573151 | | | | | 1.13E+00 | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 118-D-4 | 573151 | | | | | 1.01E+02 | | | | | | | | |
| 118-D-5 | 573151 | | | | | 1.00E+00 | | | | | | | | |
| 118-DR-1 | 573151 | | | | | 2.41E+02 | | | | | | | | |
| 116-D-7 | 573152 | | | | | 3.22E+00 | 8.02E-04 | 1.03E+00 | 5.56E+00 | 1.38E+00 | 9.18E-02 | | 4.61E-01 | |
| 116-DR-1 | 573152 | | | | | 1.08E+00 | 2.25E-03 | 1.32E+01 | 5.39E+00 | 9.78E-01 | 1.07E-01 | | 4.47E-01 | |
| 116-DR-9 | 573152 | | | | | 2.44E-01 | 2.51E-05 | 5.72E-01 | 7.18E-01 | 1.78E-01 | 1.31E-02 | | 9.68E-02 | |
| 216-A-10 | 574135 | 3.08E+00 | | | | | | 2.61E+02 | | | | | 1.85E+04 | 1.07E-01 |
| 216-A-28 | 574135 | | | | | | | 3.74E-03 | | | | | | |
| 216-A-45 | 574135 | 1.10E-01 | | | | | | 6.57E-02 | | | | | 3.85E+03 | 1.11E-02 |
| 218-E-1 | 574135 | 5.93E+00 | | | | | | 8.17E-01 | | | | | | |
| 216-C-1 | 574136 | 5.27E-02 | | | | | | 8.65E+01 | | | | | | |
| 216-C-10 | 574136 | 9.88E-04 | | | | | | 3.46E+01 | | | | | | |
| 216-C-3 | 574136 | 6.59E-03 | | | | | | 8.14E+00 | | | | | | |
| 216-C-4 | 574136 | 6.59E-03 | | | | | | 1.19E+01 | | | | | | |
| 216-C-5 | 574136 | 6.59E-03 | | | | | | 4.30E+00 | | | | | | |
| 216-C-6 | 574136 | 6.59E-04 | | | | | | 2.91E+01 | | | | | | |
| 216-C-7 | 574136 | 7.24E-03 | | | | | | 1.60E-01 | | | | | | |
| 216-C-9 | 574136 | 2.23E-03 | | | | | | 3.82E+00 | | | | | | |
| 218-C-9 | 574136 | 6.59E-07 | | | | | | 8.12E+00 | | 1.02E-06 | | | | |
| 218-E-12A | 574136 | 5.88E+01 | | | | | | 1.10E+01 | | | | | | |
| 216-A-25 | 574139 | 2.82E+00 | | | | | | 6.74E+02 | | | | | 2.13E+02 | |
| 116-DR-2 | 574152 | | | | | 1.08E+00 | 2.25E-03 | 1.32E+01 | 5.39E+00 | 9.78E-01 | 1.07E-01 | | 4.47E-01 | |
| 216-A-2 | 575135 | 8.56E-01 | | | | | | 3.81E+00 | | | | | | |
| 216-A-21 | 575135 | 9.88E-01 | | | | | | 1.62E+02 | | | | | | |
| 216-A-27 | 575135 | 6.36E-01 | | | | | | 8.84E+01 | | | | | | |
| 216-A-3 | 575135 | 1.32E-03 | | | | | | 1.37E-01 | | | | | | |
| 216-A-30 | 575135 | 6.79E-01 | | | | | | 3.33E+02 | | | | | 1.64E+01 | |
| 216-A-31 | 575135 | 5.93E-02 | | | | | | 1.63E+02 | | | | | | |
| 216-A-36A | 575135 | 5.27E-01 | | | | | | 2.66E+03 | | | | | | |
| 216-A-36B | 575135 | 1.39E+00 | | | | | | 1.03E+03 | | | | | 5.07E+02 | 8.42E-03 |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 118-D-4 | 573151 | | | | | | | | | | | | | |
| 118-D-5 | 573151 | | | | | | | | | | | | | |
| 118-DR-1 | 573151 | | | | | | | | | | | | | |
| 116-D-7 | 573152 | | | | | | 1.10E-03 | 5.30E-02 | | | | | | |
| 116-DR-1 | 573152 | | | | | | | 3.15E-02 | 3.50E-03 | | | | | |
| 116-DR-9 | 573152 | | | | | | | 4.50E-03 | | | | | | |
| 216-A-10 | 574135 | | | | 3.12E-01 | | 8.68E-01 | 5.20E+01 | 4.68E+00 | 1.09E+02 | 4.00E-04 | | | |
| 216-A-28 | 574135 | | | | | | | | | | | | | |
| 216-A-45 | 574135 | | | | 4.21E-02 | | 6.13E-03 | 1.11E-01 | | 6.58E-01 | | | | |
| 218-E-1 | 574135 | | | | | | 1.39E+00 | 5.26E+01 | 1.20E+01 | 1.71E+02 | 1.03E-03 | | | |
| 216-C-1 | 574136 | | | | | | 1.23E-02 | 9.58E-01 | 1.07E-01 | 1.52E+00 | 9.14E-06 | | | |
| 216-C-10 | 574136 | | | | | | 2.31E-04 | 1.80E-02 | 2.00E-03 | 2.84E-02 | 1.71E-07 | | | |
| 216-C-3 | 574136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-C-4 | 574136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-C-5 | 574136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-C-6 | 574136 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-C-7 | 574136 | | | | | | 1.69E-03 | 1.32E-01 | 1.47E-02 | 2.08E-01 | 1.26E-06 | | | |
| 216-C-9 | 574136 | | | | | | 5.20E-04 | 4.05E-02 | 4.52E-03 | 6.41E-02 | 3.86E-07 | | | |
| 218-C-9 | 574136 | | | | | | 1.54E-07 | 5.84E-06 | 1.34E-06 | 1.90E-05 | 1.14E-10 | | | |
| 218-E-12A | 574136 | | | | | | 1.37E+01 | 5.22E+02 | 1.19E+02 | 1.69E+03 | 1.02E-02 | | | |
| 216-A-25 | 574139 | | | | 1.44E+00 | | 6.59E-01 | 5.25E+01 | 5.72E+00 | 8.11E+01 | 4.89E-04 | | | |
| 116-DR-2 | 574152 | | | | | | | 3.15E-02 | 3.50E-03 | | | | | |
| 216-A-2 | 575135 | | | | | | 2.00E-01 | 1.56E+01 | 1.74E+00 | 2.46E+01 | 1.49E-04 | | | |
| 216-A-21 | 575135 | | | | | | 2.31E-01 | 1.80E+01 | 2.00E+00 | 2.84E+01 | 1.71E-04 | | | |
| 216-A-27 | 575135 | | | | | | 1.49E-01 | 1.16E+01 | 1.29E+00 | 1.83E+01 | 1.10E-04 | | | |
| 216-A-3 | 575135 | | | | | | 3.08E-04 | 2.40E-02 | 2.67E-03 | 3.79E-02 | 2.29E-07 | | | |
| 216-A-30 | 575135 | | | | 4.29E-01 | | 1.13E-01 | 8.99E+00 | 9.77E-01 | 1.39E+01 | 8.35E-05 | | | |
| 216-A-31 | 575135 | | | | | | 1.39E-02 | 1.08E+00 | 1.20E-01 | 1.71E+00 | 1.03E-05 | | | |
| 216-A-36A | 575135 | | | | | | 1.23E-01 | 9.58E+00 | 1.07E+00 | 1.52E+01 | 9.14E-05 | | | |
| 216-A-36B | 575135 | | | | 1.99E+00 | | 2.74E-01 | 2.15E+01 | 2.38E+00 | 3.43E+01 | 2.03E-04 | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 118-D-4 | 573151 | | | | | | | | | | | |
| 118-D-5 | 573151 | | | | | | | | | | | |
| 118-DR-1 | 573151 | | | | | | | | | | | |
| 116-D-7 | 573152 | | | | | 8.67E-02 | | | | 2.80E-02 | | |
| 116-DR-1 | 573152 | | | | | 3.03E-01 | | | | 2.40E-04 | 2.78E-02 | |
| 116-DR-9 | 573152 | | | | | 2.29E-02 | | | | 1.40E-02 | | |
| 216-A-10 | 574135 | 3.09E-01 | | | | 2.63E+02 | | | | 5.67E-04 | 8.04E-02 | |
| 216-A-28 | 574135 | | | | | 3.74E-03 | | | | 1.48E-03 | 2.10E-01 | |
| 216-A-45 | 574135 | 1.33E-02 | | 6.56E-05 | | 6.43E-02 | | | | 1.58E-05 | 2.23E-03 | |
| 218-E-1 | 574135 | 7.69E-12 | | | | 7.17E-01 | | | | 6.05E-03 | 1.33E-01 | |
| 216-C-1 | 574136 | 1.89E-08 | | | | 1.72E+02 | | | | 6.88E-04 | 9.76E-02 | |
| 216-C-10 | 574136 | 8.95E-08 | | | | 6.91E+01 | | | | 1.06E-07 | 1.50E-05 | |
| 216-C-3 | 574136 | 8.30E-11 | | | | 1.61E+01 | | | | 1.06E-04 | 1.50E-02 | |
| 216-C-4 | 574136 | 5.35E-10 | | | | 2.37E+01 | | | | 7.91E-06 | 1.12E-03 | |
| 216-C-5 | 574136 | 1.38E-10 | | | | 8.46E+00 | | | | 1.27E-04 | 1.80E-02 | |
| 216-C-6 | 574136 | 2.73E-08 | | | | 5.79E+01 | | | | 1.06E-07 | 1.50E-05 | |
| 216-C-7 | 574136 | 1.06E-08 | | | | 1.58E-01 | | | | 2.33E-07 | 3.31E-05 | |
| 216-C-9 | 574136 | 8.66E-08 | | | | 5.55E+00 | | | | 2.14E-06 | 3.03E-04 | |
| 218-C-9 | 574136 | 5.42E-06 | | | | 1.31E+01 | | | | | | |
| 218-E-12A | 574136 | 1.22E-06 | | | | 9.06E+00 | | | | 1.50E-02 | 3.29E-01 | |
| 216-A-25 | 574139 | 1.62E-04 | | | | 7.27E+02 | | | | 2.97E-02 | 4.21E+00 | |
| 116-DR-2 | 574152 | | | | | 3.03E-01 | | | | 2.40E-04 | 2.78E-02 | |
| 216-A-2 | 575135 | 7.83E-08 | | | | 3.28E+00 | | | | 1.82E-04 | 2.58E-02 | |
| 216-A-21 | 575135 | 1.45E-06 | | | | 9.05E+01 | | | | 4.55E-04 | 6.45E-02 | |
| 216-A-27 | 575135 | 1.38E-05 | | | | 8.05E+01 | | | | 1.59E-04 | 2.25E-02 | |
| 216-A-3 | 575135 | 1.52E-07 | | | | 1.34E-01 | | | | 3.91E-03 | 5.55E-01 | |
| 216-A-30 | 575135 | 8.14E-02 | | 3.15E-03 | | 3.18E+02 | | | | 7.00E-04 | 9.93E-02 | |
| 216-A-31 | 575135 | 1.30E-03 | | | | 8.21E+01 | | | | 4.78E-05 | 6.78E-03 | |
| 216-A-36A | 575135 | 1.16E-04 | | | | 2.79E+03 | | | | 3.39E-04 | 4.81E-02 | |
| 216-A-36B | 575135 | 3.17E+00 | | 5.79E-04 | | 1.01E+03 | | | | 2.79E-04 | 3.95E-02 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 216-A-37-1 | 575135 | 5.55E-04 | | | | | | 3.49E-01 | | | | | 1.60E+03 | 4.26E-03 |
| 216-A-4 | 575135 | 9.22E-01 | | | | | | 1.80E+01 | | | | | | |
| 216-A-5 | 575135 | 4.28E-01 | | | | | | 6.66E+01 | | | | | | |
| 216-A-6 | 575135 | 2.34E-01 | | | | | | 2.51E+02 | | | | | | |
| 216-A-1 | 575136 | 6.59E-04 | | | | | | 1.29E-01 | | | | | | |
| 216-A-18 | 575136 | 6.59E-04 | | | | | | 1.30E-01 | | | | | | |
| 216-A-19 | 575136 | 6.59E-04 | | | | | | 1.29E-01 | | | | | | |
| 216-A-20 | 575136 | 6.59E-04 | | | | | | 1.29E-01 | | | | | | |
| 216-A-24 | 575136 | 3.33E-02 | | | | | | 5.44E+02 | | | | | | |
| 216-A-7 | 575136 | 6.59E-03 | | | | | | 4.96E+00 | | | | | | |
| 216-A-8 | 575136 | 3.29E-01 | | | | | | 1.08E+03 | | | | | 3.46E-01 | |
| 216-A-9 | 575136 | 3.29E-03 | | | | | | 2.02E+01 | | | | | | |
| 200-E BP | 575137 | | | | | | | | | | | | | |
| 218-E-8 | 575137 | 1.32E-01 | | | | | | 1.02E-01 | | | | | | |
| 216-A-37-2 | 576135 | 9.82E-02 | | | | | | 1.13E+00 | | | | | 6.13E+00 | |
| 216-B-3 | 576136 | 5.61E+00 | | | | | | 2.89E+02 | | | | | 7.90E+02 | |
| 116-H-2 | 577152 | | | | | 9.78E-03 | 3.00E-05 | 2.56E-01 | 5.32E-02 | 1.03E-02 | 4.11E-03 | | 2.14E-01 | |
| 116-H-3 | 577152 | | | | | 5.06E-03 | | 3.31E-02 | 6.57E-03 | 1.39E-03 | 1.20E-04 | | 8.80E-04 | |
| 116-H-6 | 577152 | | 5.60E-02 | | | 5.00E+00 | 7.90E-04 | 1.80E+00 | 6.80E+00 | 2.20E+00 | 3.90E-01 | | 7.80E-02 | |
| 118-H-1 | 577152 | | 6.60E-01 | | | 6.10E+02 | | 1.00E+00 | 1.42E+01 | 2.51E+01 | | | 3.50E+00 | |
| 118-H-2 | 577152 | | | | | 4.59E+00 | | | | | | | | |
| 118-H-3 | 577152 | | | | | 1.39E+01 | | | | | | | | |
| 118-H-4 | 577152 | | | | | 3.06E+00 | | | | | | | | |
| 118-H-5 | 577152 | | | | | 1.00E+00 | | | | | | | | |
| 116-H-1 | 578152 | | | | | 9.11E-01 | 4.00E-05 | 3.81E+00 | 9.20E+00 | 5.04E+00 | 1.45E-01 | | 3.09E-02 | |
| 116-H-7 | 578152 | | 4.96E-02 | | | 1.34E+00 | 2.75E-05 | 1.43E+00 | 4.07E+00 | 9.82E-01 | 8.95E-02 | | 4.44E-02 | |
| 118-F-2 | 579147 | | | | | 3.24E+01 | | | | | | | | |
| 116-F-1 | 580147 | | | | | 2.23E-01 | 6.00E-05 | 9.10E-01 | 5.59E-01 | 1.96E-01 | 1.33E-03 | | 2.01E-01 | |
| 116-F-10 | 580147 | | | | | 1.01E-02 | | 6.70E-03 | 1.18E-02 | 1.34E-03 | 1.96E-03 | | 3.71E-02 | |
| 116-F-3 | 580147 | | | | | 5.00E-05 | | | 3.00E-04 | | 9.00E-05 | | 4.80E-04 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 216-A-37-1 | 575135 | | | | 9.19E-02 | | 4.36E-05 | 1.03E-02 | 3.78E-04 | 5.36E-03 | 3.23E-08 | | | |
| 216-A-4 | 575135 | | | | | | 2.15E-01 | 1.68E+01 | 1.87E+00 | 2.65E+01 | 1.60E-04 | | | |
| 216-A-5 | 575135 | | | | | | 1.00E-01 | 7.79E+00 | 8.69E-01 | 1.23E+01 | 7.43E-05 | | | |
| 216-A-6 | 575135 | | | | | | 5.48E-02 | 4.27E+00 | 4.76E-01 | 6.75E+00 | 4.07E-05 | | | |
| 216-A-1 | 575136 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-A-18 | 575136 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-A-19 | 575136 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-A-20 | 575136 | | | | | | 1.54E-04 | 1.20E-02 | 1.34E-03 | 1.90E-02 | 1.14E-07 | | | |
| 216-A-24 | 575136 | | | | | | 7.79E-03 | 6.07E-01 | 6.76E-02 | 9.59E-01 | 5.78E-06 | | | |
| 216-A-7 | 575136 | | | | | | 1.54E-03 | 1.20E-01 | 1.34E-02 | 1.90E-01 | 1.14E-06 | | | |
| 216-A-8 | 575136 | | | | | | 7.70E-02 | 5.99E+00 | 6.68E-01 | 9.48E+00 | 5.71E-05 | | | |
| 216-A-9 | 575136 | | | | | | 7.70E-04 | 5.99E-02 | 6.68E-03 | 9.48E-02 | 5.71E-07 | | | |
| 200-E BP | 575137 | | | | | | | | | | | | | |
| 218-E-8 | 575137 | | | | | | 3.08E-02 | 1.17E+00 | 2.67E-01 | 3.79E+00 | 2.29E-05 | | | |
| 216-A-37-2 | 576135 | | | | 1.96E-01 | | | 3.73E+02 | | | | | | |
| 216-B-3 | 576136 | | | | 8.18E-01 | | 3.87E-01 | 3.16E+01 | 3.34E+00 | 4.74E+01 | 2.86E-04 | | | |
| 116-H-2 | 577152 | | | | | | | 3.80E-04 | 4.00E-05 | | | | | |
| 116-H-3 | 577152 | | | | | | | 8.00E-05 | | | | | | |
| 116-H-6 | 577152 | | | | | | 1.60E-03 | 4.80E-02 | | | | | | |
| 118-H-1 | 577152 | | | | | | | | | | | | | |
| 118-H-2 | 577152 | | | | | | | | | | | | | |
| 118-H-3 | 577152 | | | | | | | | | | | | | |
| 118-H-4 | 577152 | | | | | | | | | | | | | |
| 118-H-5 | 577152 | | | | | | | | | | | | | |
| 116-H-1 | 578152 | | | | | | 3.09E-03 | 6.03E-02 | 6.69E-03 | | | | | |
| 116-H-7 | 578152 | | | | | | 1.46E-03 | 4.80E-02 | | | | | | |
| 118-F-2 | 579147 | | | | | | | | | | | | | |
| 116-F-1 | 580147 | | | | | | | 5.94E-03 | 6.60E-04 | | | | | |
| 116-F-10 | 580147 | | | | | | | 7.00E-05 | | | | | | |
| 116-F-3 | 580147 | | | | | | | | | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 216-A-37-1 | 575135 | 4.15E-02 | | 2.52E-03 | | 3.08E-01 | | | | 7.63E-05 | 1.08E-02 | |
| 216-A-4 | 575135 | 4.38E-08 | | | | 1.54E+01 | | | | 9.31E-04 | 1.32E-01 | |
| 216-A-5 | 575135 | 1.08E-07 | | | | 9.61E+01 | | | | 6.14E-04 | 8.71E-02 | |
| 216-A-6 | 575135 | 5.50E-06 | | | | 1.90E+02 | | | | 3.85E-04 | 5.46E-02 | |
| 216-A-1 | 575136 | 2.75E-12 | | | | 1.27E-01 | | | | 3.60E-04 | 5.10E-02 | |
| 216-A-18 | 575136 | 2.75E-12 | | | | 1.28E-01 | | | | 3.28E-03 | 4.66E-01 | |
| 216-A-19 | 575136 | 2.75E-12 | | | | 1.27E-01 | | | | 9.10E-02 | 1.29E+01 | |
| 216-A-20 | 575136 | 2.75E-12 | | | | 1.27E-01 | | | | 9.45E-04 | 1.34E-01 | |
| 216-A-24 | 575136 | 1.32E-06 | | | | 2.94E+02 | | | | 1.17E-04 | 1.66E-02 | |
| 216-A-7 | 575136 | 1.10E-07 | | | | 3.08E+00 | | | | 1.59E-05 | 2.25E-03 | |
| 216-A-8 | 575136 | 4.69E-05 | | | | 6.07E+02 | | | | 8.61E-04 | 1.22E-01 | |
| 216-A-9 | 575136 | 3.63E-08 | | | | 2.65E+01 | | | | 5.30E-07 | 7.52E-05 | |
| 200-E BP | 575137 | | | | | 9.06E-02 | | | | | | |
| 218-E-8 | 575137 | 1.18E-10 | | | | 9.06E-02 | | | | 3.02E-05 | 6.65E-04 | |
| 216-A-37-2 | 576135 | 4.07E-02 | | 1.57E-03 | | 1.23E+00 | | | | 1.20E-04 | 1.71E-02 | |
| 216-B-3 | 576136 | 1.42E+00 | | 7.32E-07 | | 2.96E+02 | | | | 1.47E-02 | 2.09E+00 | |
| 116-H-2 | 577152 | | | | | 4.91E-01 | | | | 5.00E-05 | 5.94E-03 | |
| 116-H-3 | 577152 | | | | | 1.40E-04 | | | | | | |
| 116-H-6 | 577152 | | | | | 2.60E-01 | | | | 4.80E-02 | | |
| 118-H-1 | 577152 | | | | | 1.00E+00 | | | | | | |
| 118-H-2 | 577152 | | | | | | | | | | | |
| 118-H-3 | 577152 | | | | | | | | | | | |
| 118-H-4 | 577152 | | | | | | | | | | | |
| 118-H-5 | 577152 | | | | | | | | | | | |
| 116-H-1 | 578152 | | | | | 7.53E-01 | | | | 1.39E-03 | 1.59E-01 | |
| 116-H-7 | 578152 | | | | | 2.05E-01 | | | | 4.80E-02 | | |
| 118-F-2 | 579147 | | | | | | | | | | | |
| 116-F-1 | 580147 | | | | | 5.15E-02 | | | | 1.60E-04 | 1.88E-02 | |
| 116-F-10 | 580147 | | | | | 6.00E-05 | | | | | 3.00E-05 | |
| 116-F-3 | 580147 | | | | | 3.60E-04 | | | | | | |





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*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Am241 Ci | C14 Ci | Ce144 Ci | Co58 Ci | Co60 Ci | Cs134 Ci | Cs137 Ci | Eu152 Ci | Eu154 Ci | Eu155 Ci | Fe59 Ci | H3 Ci | I129 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 4.33E+02 | 5.73E+01 | 7.79E-01 | 1.94E-01 | 5.27E+00 | 2.07E+00 | 3.02E+01 | 1.35E+01 | 8.59E+00 | 4.71E+00 | 1.22E-01 | 1.23E+01 | 1.57E+07 |
| 116-F-4 | 580147 | | | | | 1.90E-04 | 1.57E-03 | 1.57E+00 | 7.23E-03 | 2.47E-02 | 3.47E-02 | | 1.07E-02 | |
| 116-F-5 | 580147 | | | | | | | 4.00E-05 | | 3.30E-04 | 6.00E-05 | | | |
| 116-F-6 | 580147 | | | | | 3.37E-01 | 2.80E-04 | 5.46E-01 | 1.12E+00 | 2.73E-01 | 2.34E-02 | | 1.45E+00 | |
| 116-F-7 | 580147 | | | | | | | | 5.00E-05 | | | | | |
| 118-F-1 | 580147 | | 6.60E-01 | | | 7.64E+02 | | 1.30E+00 | 1.54E+01 | 2.81E+01 | | | 3.50E+00 | |
| 118-F-3 | 580147 | | | | | 1.00E+00 | | | | | | | | |
| 118-F-4 | 580147 | | 2.00E-02 | | | 7.46E-03 | | | | | | | 8.00E-01 | |
| 118-F-6 | 580147 | | | | | | | | | | | | | |
| 118-F-7 | 580147 | | | | | 1.00E+00 | | | | | | | | |
| 116-F-14 | 581147 | | 5.76E-02 | | | 9.40E-01 | 1.43E-04 | 2.30E-01 | 4.90E+00 | 1.12E+00 | 7.58E-02 | | 1.54E-01 | |
| 116-F-2 | 581147 | | | | | 8.00E-01 | 2.90E-04 | 7.61E-01 | 6.05E+00 | 1.49E+00 | 2.07E-01 | | 3.73E-01 | |
| 116-F-9 | 581147 | | | | | 1.86E-01 | | 9.10E-02 | 3.94E-01 | 1.85E-01 | 1.36E-02 | | | |
| 118-F-5 | 581147 | | | | | | | | | | | | | |
| 618-11 | 589127 | | | | | 1.44E+02 | | | | | | | | |
| 618-10 | 590121 | | | | | 9.72E+01 | | | | | | | | |
| 618-7 | 592116 | | | | | 1.81E-06 | | | | | | | | |
| 618-9 | 592116 | | | | | 7.21E-06 | | | | | | | | |
| 618-3 | 593116 | | | | | 1.70E-06 | | | | | | | | |
| 618-8 | 593116 | | | | | 3.49E-05 | | | | | | | | |
| 316-1 | 594116 | | | | | 1.00E-03 | | | | | | | | |
| 316-2 | 594116 | | | | | 1.00E-03 | | | | | | | | |
| 316-5 | 594116 | | | | | | | 3.28E+00 | | | | | | |
| 618-1 | 594116 | | | | | | | | | | | | | |
| 618-2 | 594116 | | | | | | | 1.00E+03 | | | | | | |
| 618-5 | 594116 | | | | | 8.52E+01 | | | | | | | | |
| 618-4 | 594117 | | | | | 3.73E-06 | | | | | | | | |
| 100HR PIPING | | | | | | | | 3.00E-02 | 1.90E-01 | 2.80E-01 | 2.40E-01 | | 7.40E-01 | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Mn54 Ci | Nb95 Ci | Ni63 Ci | Pm147 Ci | Po210 Ci | Pu238 Ci | Pu239 Ci | Pu240 Ci | Pu241 Ci | Pu242 Ci | Ra226 Ci | Re187 Ci | Ru103 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 8.55E-01 | 9.58E-02 | 1.00E+02 | 2.62E+00 | 3.79E-01 | 8.77E+01 | 2.41E+04 | 6.56E+03 | 1.44E+01 | 3.75E+05 | 1.60E+03 | 6.26E+01 | 1.08E-01 |
| 116-F-4 | 580147 | | | | | | 5.30E-04 | 3.78E-02 | 4.20E-03 | | | | | |
| 116-F-5 | 580147 | | | | | | | | | | | | | |
| 116-F-6 | 580147 | | | | | | | 8.82E-03 | 9.80E-04 | | | | | |
| 116-F-7 | 580147 | | | | | | | 3.00E-05 | | | | | | |
| 118-F-1 | 580147 | | | 8.31E+01 | | | | | | | | | | |
| 118-F-3 | 580147 | | | | | | | | | | | | | |
| 118-F-4 | 580147 | | | | | | | | | | | | | |
| 118-F-6 | 580147 | | | | | | | | | | | | | |
| 118-F-7 | 580147 | | | | | | | | | | | | | |
| 116-F-14 | 581147 | | | | | | 1.20E-05 | 1.60E-02 | | | | | | |
| 116-F-2 | 581147 | | | | | | | 7.38E-03 | 8.20E-04 | | | | | |
| 116-F-9 | 581147 | | | | | | | 6.30E-03 | 7.00E-04 | | | | | |
| 118-F-5 | 581147 | | | | | | | 3.00E-01 | | | | | | |
| 618-11 | 589127 | | | | | | | | | | | | | |
| 618-10 | 590121 | | | | | | | 4.14E+01 | | | | | | |
| 618-7 | 592116 | | | | | | | | | | | | | |
| 618-9 | 592116 | | | | | | | | | | | | | |
| 618-3 | 593116 | | | | | | | | | | | | | |
| 618-8 | 593116 | | | | | | | | | | | | | |
| 316-1 | 594116 | | | | | | | | | | | | | |
| 316-2 | 594116 | | | | 5.00E-02 | | | | | | | | | |
| 316-5 | 594116 | | | | | | | | | | | | | |
| 618-1 | 594116 | | | | | | | 6.00E-02 | 1.70E-02 | | | | | |
| 618-2 | 594116 | | | | | | | | | | | | | |
| 618-5 | 594116 | | | | | | | | | | | | | |
| 618-4 | 594117 | | | | | | | | | | | | | |
| 100HR PIPING | | | | | | | 2.70E-02 | | 1.40E-01 | | | | | |

*Table B2-7. Radionuclide Inventories of Waste Sites. (30 sheets)*

| Site Code (WIDS) | Cell Id xxx,yyy | Ru106 Ci | Sb125 Ci | Sn113 Ci | Sn123M Ci | Sr90 Ci | Tc99 Ci | Th232 Ci | U234 Ci | U235 Ci | U238 Ci | Zr95 Ci |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Half-life in years | | 1.02E+00 | 2.76E+00 | 3.15E-01 | 3.54E-01 | 2.91E+01 | 2.13E+05 | 1.40E+10 | 2.46E+05 | 7.04E+08 | 4.47E+09 | 1.75E-01 |
| 116-F-4 | 580147 | | | | | 1.06E+00 | | | | 1.00E-05 | 1.59E-03 | |
| 116-F-5 | 580147 | | | | | 2.00E-05 | | | | | | |
| 116-F-6 | 580147 | | | | | 1.72E-01 | | | | 6.00E-05 | 6.93E-03 | |
| 116-F-7 | 580147 | | | | | 2.00E-05 | | | | | | |
| 118-F-1 | 580147 | | | | | 1.30E+00 | | | | | | |
| 118-F-3 | 580147 | | | | | | | | | | | |
| 118-F-4 | 580147 | | | | | | | | | | | |
| 118-F-6 | 580147 | | | | | 1.04E+01 | | | | | | |
| 118-F-7 | 580147 | | | | | | | | | | | |
| 116-F-14 | 581147 | | | | | 7.88E-02 | | | | 1.40E-02 | | |
| 116-F-2 | 581147 | | | | | 6.95E-02 | | | | 1.40E-04 | 1.58E-02 | |
| 116-F-9 | 581147 | | | | | 1.96E+00 | | | | | | |
| 118-F-5 | 581147 | | | | | 1.04E+01 | | | | | | |
| 618-11 | 589127 | | | | | | | | | | | |
| 618-10 | 590121 | | | | | | | | | 3.11E-05 | 3.35E-07 | |
| 618-7 | 592116 | | | | | | | 2.19E-03 | | 3.10E-02 | 6.65E-01 | |
| 618-9 | 592116 | | | | | | | | | 3.10E-01 | 6.65E+00 | |
| 618-3 | 593116 | | | | | | | | | 3.11E-02 | 6.65E-01 | |
| 618-8 | 593116 | | | | | | | | | 3.11E-01 | 6.65E+00 | |
| 316-1 | 594116 | | | | | | | | | | | |
| 316-2 | 594116 | | | | | | | | | | | |
| 316-5 | 594116 | | | | | 3.28E+00 | 1.58E+00 | | 1.35E+00 | 7.33E-02 | 1.11E+00 | |
| 618-1 | 594116 | | | | | | | | | | | |
| 618-2 | 594116 | | | | | 1.00E+03 | | | | | | |
| 618-5 | 594116 | | | | | | | | | 3.10E-02 | 6.65E-01 | |
| 618-4 | 594117 | | | | | | | | | 4.66E-03 | 9.97E-02 | |
| 100HR PIPING | | | | | | 1.30E+00 | | | | 2.90E-01 | | |

*Table B2-8. Aggregated Inventories of Waste Sites: Surface. (2 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 565145 | Co60 | Co60 | 2.70E-01 | 4.67E+03 |
| 565145 | Cs134 | Cs134 | 1.55E-03 | 4.67E+03 |
| 565145 | Cs137 | Cs137 | 6.31E+00 | 4.67E+03 |
| 565145 | Eu152 | Eu152 | 9.25E-01 | 4.67E+03 |
| 565145 | Eu154 | Eu154 | 1.68E-01 | 4.67E+03 |
| 565145 | Eu155 | Eu155 | 4.20E+00 | 4.67E+03 |
| 565145 | H3 | H3 | 1.36E-01 | 4.67E+03 |
| 565145 | Pu240 | Pu240 | 1.30E-02 | 4.67E+03 |
| 565145 | U235 | U235 | 4.60E-03 | 4.67E+03 |
| 566133 | Am241 | Am241 | 2.04E-03 | 2.10E+03 |
| 566133 | Cs137 | Cs137 | 1.79E+00 | 2.10E+03 |
| 566133 | Pu238 | Pu238 | 4.77E-04 | 2.10E+03 |
| 566133 | Pu239 | Pu239 | 2.36E-02 | 2.10E+03 |
| 566133 | Pu240 | Pu240 | 4.14E-03 | 2.10E+03 |
| 566133 | Pu241 | Pu241 | 5.87E-02 | 2.10E+03 |
| 566133 | Pu242 | Pu242 | 3.54E-07 | 2.10E+03 |
| 566133 | Ru106 | Ru106 | 2.91E-01 | 2.10E+03 |
| 566133 | Sr90' | Sr90 | 1.78E+00 | 2.10E+03 |
| 566133 | U235 | U235 | 4.79E-05 | 2.10E+03 |
| 566133 | U238 | U238 | 6.80E-03 | 2.10E+03 |
| 566134 | Am241 | Am241 | 5.32E+01 | 1.90E+02 |
| 566134 | Cs137 | Cs137 | 3.31E+01 | 1.90E+02 |
| 566134 | H3 | H3 | 1.96E+02 | 1.90E+02 |
| 566134 | Pu238 | Pu238 | 1.23E+01 | 1.90E+02 |
| 566134 | Pu239 | Pu239 | 9.72E+02 | 1.90E+02 |
| 566134 | Pu240 | Pu240 | 1.07E+02 | 1.90E+02 |
| 566134 | Pu241 | Pu241 | 1.52E+03 | 1.90E+02 |
| 566134 | Pu242 | Pu242 | 9.14E-03 | 1.90E+02 |
| 566134 | Ru106 | Ru106 | 2.77E-05 | 1.90E+02 |
| 566134 | Sr90 | Sr90 | 3.31E+01 | 1.90E+02 |
| 566134 | U235 | U235 | 1.32E-02 | 1.90E+02 |
| 566134 | U238 | U238 | 1.87E+00 | 1.90E+02 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 567133 | Am241 | Am241 | 1.36E-01 | 5.00E+03 |
| 567133 | Cs137 | Cs137 | 3.85E+00 | 5.00E+03 |
| 567133 | H3 | H3 | 1.87E-01 | 5.00E+03 |
| 567133 | Pu238 | Pu238 | 3.17E-02 | 5.00E+03 |
| 567133 | Pu239 | Pu239 | 2.46E+00 | 5.00E+03 |
| 567133 | Pu240 | Pu240 | 2.75E-01 | 5.00E+03 |
| 567133 | Pu241 | Pu241 | 3.90E+00 | 5.00E+03 |
| 567133 | Pu242 | Pu242 | 2.35E-05 | 5.00E+03 |
| 567133 | Ru106 | Ru106 | 3.88E-07 | 5.00E+03 |
| 567133 | Sr90 | Sr90 | 3.86E+00 | 5.00E+03 |
| 567133 | U235 | U235 | 3.63E-04 | 5.00E+03 |
| 567133 | U238 | U238 | 5.14E-02 | 5.00E+03 |
| 573152 | Co60 | Co60 | 1.49E-01 | 3.68E+05 |
| 573152 | Cs134 | Cs134 | 7.13E-06 | 3.68E+05 |
| 573152 | Cs137 | Cs137 | 5.25E-01 | 3.68E+05 |
| 573152 | Eu152 | Eu152 | 5.92E-01 | 3.68E+05 |
| 573152 | Eu154 | Eu154 | 1.32E-01 | 3.68E+05 |
| 573152 | Eu155 | Eu155 | 7.54E-03 | 3.68E+05 |
| 573152 | H3 | H3 | 7.84E-02 | 3.68E+05 |
| 573152 | Pu239 | Pu239 | 4.50E-03 | 3.68E+05 |
| 573152 | Sr90 | Sr90 | 2.09E-02 | 3.68E+05 |
| 573152 | U235 | U235 | 1.40E-02 | 3.68E+05 |
| 574139 | Am241 | Am241 | 2.82E+00 | 1.50E+05 |
| 574139 | Cs137 | Cs137 | 6.73E+02 | 1.50E+05 |
| 574139 | H3 | H3 | 2.13E+02 | 1.50E+05 |
| 574139 | Pm147 | Pm147 | 1.44E+00 | 1.50E+05 |
| 574139 | Pu238 | Pu238 | 6.59E-01 | 1.50E+05 |
| 574139 | Pu239 | Pu239 | 5.25E+01 | 1.50E+05 |
| 574139 | Pu240 | Pu240 | 5.72E+00 | 1.50E+05 |
| 574139 | Pu241 | Pu241 | 8.11E+01 | 1.50E+05 |
| 574139 | Pu242 | Pu242 | 4.89E-04 | 1.50E+05 |
| 574139 | Ru106 | Ru106 | 1.62E-04 | 1.50E+05 |





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*Table B2-8. Aggregated Inventories of Waste Sites: Surface. (2 sheets)*

| Cell Id | Casid | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 574139 | Sr90 | Sr90 | 7.26E+02 | 1.50E+05 |
| 574139 | U235 | U235 | 2.97E-02 | 1.50E+05 |
| 574139 | U238 | U238 | 4.21E+00 | 1.50E+05 |
| 576136 | Am241 | Am241 | 5.61E+00 | 6.30E+04 |
| 576136 | Cs137 | Cs137 | 2.89E+02 | 6.30E+04 |
| 576136 | H3 | H3 | 7.90E+02 | 6.30E+04 |
| 576136 | Pm147 | Pm147 | 8.18E-01 | 6.30E+04 |
| 576136 | Pu238 | Pu238 | 3.87E-01 | 6.30E+04 |
| 576136 | Pu239 | Pu239 | 3.16E+01 | 6.30E+04 |
| 576136 | Pu240 | Pu240 | 3.34E+00 | 6.30E+04 |
| 576136 | Pu241 | Pu241 | 4.74E+01 | 6.30E+04 |
| 576136 | Pu242 | Pu242 | 2.86E-04 | 6.30E+04 |
| 576136 | Ru106 | Ru106 | 1.42E+00 | 6.30E+04 |
| 576136 | Sn113 | Sn113 | 7.32E-07 | 6.30E+04 |
| 576136 | Sr90 | Sr90 | 2.96E+02 | 6.30E+04 |

| Cell Id | Casid | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 576136 | U235 | U235 | 1.47E-02 | 6.30E+04 |
| 576136 | U238 | U238 | 2.09E+00 | 6.30E+04 |
| 577152 | C14 | C14 | 4.56E-02 | 4.90E+03 |
| 577152 | Co60 | Co60 | 5.35E-01 | 4.90E+03 |
| 577152 | Cs134 | Cs134 | 2.63E-06 | 4.90E+03 |
| 577152 | Cs137 | Cs137 | 1.22E+00 | 4.90E+03 |
| 577152 | Eu152 | Eu152 | 2.84E+00 | 4.90E+03 |
| 577152 | Eu154 | Eu154 | 5.58E-01 | 4.90E+03 |
| 577152 | Eu155 | Eu155 | 3.20E-02 | 4.90E+03 |
| 577152 | H3 | H3 | 2.99E-02 | 4.90E+03 |
| 577152 | Pu238 | Pu238 | 1.40E-03 | 4.90E+03 |
| 577152 | Pu239 | Pu239 | 4.80E-02 | 4.90E+03 |
| 577152 | Sr90 | Sr90 | 1.73E-01 | 4.90E+03 |
| 577152 | U235 | U235 | 4.80E-02 | 4.90E+03 |

*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 564143 | C14 | C14 | 6.31E-01 | 6.65E+04 |
| 564143 | Co60 | Co60 | 5.41E+02 | 6.65E+04 |
| 564143 | Cs137 | Cs137 | 1.38E+00 | 6.65E+04 |
| 564143 | Eu152 | Eu152 | 1.36E+01 | 6.65E+04 |
| 564143 | Eu154 | Eu154 | 2.23E+01 | 6.65E+04 |
| 564143 | H3 | H3 | 3.08E+03 | 6.65E+04 |
| 564143 | Ni63 | Ni63 | 9.41E+01 | 6.65E+04 |
| 564143 | Sr90 | Sr90 | 1.37E+00 | 6.65E+04 |
| 565133 | Cs137 | Cs137 | 1.04E+02 | 4.50E+04 |
| 565133 | 14797558 | NO3 | 1.00E+04 | 4.50E+04 |
| 565133 | Pu239 | Pu239 | 2.26E+01 | 4.50E+04 |
| 565133 | Ru106 | Ru106 | 4.46E-06 | 4.50E+04 |
| 565133 | Sr90 | Sr90 | 1.19E+02 | 4.50E+04 |
| 565133 | U235 | U235 | 7.35E-03 | 4.50E+04 |
| 565133 | U238 | U238 | 1.04E+00 | 4.50E+04 |
| 565134 | Cs137 | Cs137 | 3.03E-02 | 3.40E+03 |
| 565134 | H3 | H3 | 2.30E+01 | 3.40E+03 |
| 565134 | Ru106 | Ru106 | 2.92E-15 | 3.40E+03 |
| 565134 | Sr90 | Sr90 | 1.87E-02 | 3.40E+03 |
| 565143 | C14 | C14 | 3.48E+00 | 4.75E+04 |
| 565143 | Co60 | Co60 | 3.49E+02 | 4.75E+04 |
| 565143 | Cs137 | Cs137 | 1.19E+00 | 4.75E+04 |
| 565143 | Eu152 | Eu152 | 1.17E+01 | 4.75E+04 |
| 565143 | Eu154 | Eu154 | 1.92E+01 | 4.75E+04 |
| 565143 | H3 | H3 | 6.88E+00 | 4.75E+04 |
| 565143 | Ni63 | Ni63 | 6.10E+01 | 4.75E+04 |
| 565143 | Sr90 | Sr90 | 1.19E+00 | 4.75E+04 |
| 565144 | Co60 | Co60 | 1.25E+02 | 7.44E+04 |
| 565144 | Cs134 | Cs134 | 7.32E-03 | 7.44E+04 |
| 565144 | Cs137 | Cs137 | 8.14E+00 | 7.44E+04 |
| 565144 | Eu152 | Eu152 | 5.56E+00 | 7.44E+04 |
| 565144 | Eu154 | Eu154 | 4.18E-01 | 7.44E+04 |
| 565144 | Eu155 | Eu155 | 1.24E+00 | 7.44E+04 |
| 565144 | H3 | H3 | 9.63E+02 | 7.44E+04 |
| 565144 | 10588019 | NaCr2 | 1.60E+06 | 7.44E+04 |
| 565144 | 62760 | NaOxal | 2.20E+06 | 7.44E+04 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 565144 | 5329146 | NaSulfam | 7.20E+06 | 7.44E+04 |
| 565144 | Ni63 | Ni63 | 1.56E+00 | 7.44E+04 |
| 565144 | Pu238 | Pu238 | 1.10E-01 | 7.44E+04 |
| 565144 | Pu239 | Pu239 | 1.23E-01 | 7.44E+04 |
| 565144 | Pu240 | Pu240 | 2.09E-02 | 7.44E+04 |
| 565144 | Sr90 | Sr90 | 3.45E+00 | 7.44E+04 |
| 565144 | U235 | U235 | 1.14E-03 | 7.44E+04 |
| 565144 | U238 | U238 | 1.37E-01 | 7.44E+04 |
| 565145 | Co60 | Co60 | 9.06E+01 | 8.02E+05 |
| 565145 | Cs134 | Cs134 | 3.40E-01 | 8.02E+05 |
| 565145 | Cs137 | Cs137 | 4.27E+01 | 8.02E+05 |
| 565145 | Eu152 | Eu152 | 2.10E+02 | 8.02E+05 |
| 565145 | Eu154 | Eu154 | 6.84E+01 | 8.02E+05 |
| 565145 | Eu155 | Eu155 | 1.29E+00 | 8.02E+05 |
| 565145 | H3 | H3 | 1.02E+00 | 8.02E+05 |
| 565145 | 10588019 | NaCr2 | 1.60E+05 | 8.02E+05 |
| 565145 | Pu238 | Pu238 | 1.46E-02 | 8.02E+05 |
| 565145 | Pu239 | Pu239 | 1.12E+00 | 8.02E+05 |
| 565145 | Pu240 | Pu240 | 2.10E-02 | 8.02E+05 |
| 565145 | Sr90 | Sr90 | 3.68E+00 | 8.02E+05 |
| 565145 | U235 | U235 | 2.06E-01 | 8.02E+05 |
| 565145 | U238 | U238 | 4.85E-02 | 8.02E+05 |
| 566133 | Am241 | Am241 | 6.97E+00 | 5.22E+04 |
| 566133 | Cs137 | Cs137 | 5.80E+02 | 5.22E+04 |
| 566133 | 14797558 | NO3 | 3.80E+05 | 5.22E+04 |
| 566133 | Pu238 | Pu238 | 1.63E+00 | 5.22E+04 |
| 566133 | Pu239 | Pu239 | 1.27E+02 | 5.22E+04 |
| 566133 | Pu240 | Pu240 | 1.41E+01 | 5.22E+04 |
| 566133 | Pu241 | Pu241 | 2.00E+02 | 5.22E+04 |
| 566133 | Pu242 | Pu242 | 1.21E-03 | 5.22E+04 |
| 566133 | Ru106 | Ru106 | 3.45E-01 | 5.22E+04 |
| 566133 | Sr90 | Sr90 | 6.99E+02 | 5.22E+04 |
| 566133 | U235 | U235 | 2.06E-03 | 5.22E+04 |
| 566133 | U238 | U238 | 2.92E-01 | 5.22E+04 |
| 566134 | 13473900 | AlNO3 | 6.00E+07 | 5.13E+03 |
| 566134 | Am241 | Am241 | 7.93E+00 | 5.13E+03 |





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*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 566134 | Cs137 | Cs137 | 3.72E+03 | 5.13E+03 |
| 566134 | H3 | H3 | 1.48E+02 | 5.13E+03 |
| 566134 | 7697372 | HNO3 | 1.00E+08 | 5.13E+03 |
| 566134 | 7647145 | Na | 1.01E+07 | 5.13E+03 |
| 566134 | 1302427 | NaAl | 3.00E+03 | 5.13E+03 |
| 566134 | 10588019 | NaCr2 | 2.00E+03 | 5.13E+03 |
| 566134 | 1310732 | NaOH | 2.00E+03 | 5.13E+03 |
| 566134 | 6484522 | NH4NO3 | 8.00E+05 | 5.13E+03 |
| 566134 | 14797558 | NO3 | 6.01E+07 | 5.13E+03 |
| 566134 | Pu238 | Pu238 | 1.85E+00 | 5.13E+03 |
| 566134 | Pu239 | Pu239 | 4.18E+02 | 5.13E+03 |
| 566134 | Pu240 | Pu240 | 9.01E+01 | 5.13E+03 |
| 566134 | Pu241 | Pu241 | 2.28E+02 | 5.13E+03 |
| 566134 | Pu242 | Pu242 | 1.38E-03 | 5.13E+03 |
| 566134 | Ru106 | Ru106 | 1.74E-05 | 5.13E+03 |
| 566134 | Sr90 | Sr90 | 3.78E+03 | 5.13E+03 |
| 566134 | U235 | U235 | 6.19E-03 | 5.13E+03 |
| 566134 | U238 | U238 | 8.78E-01 | 5.13E+03 |
| 566135 | #REFI | AlFNO3 | 4.10E+08 | 3.52E+04 |
| 566135 | 13473900 | AlNO3 | 3.60E+08 | 3.52E+04 |
| 566135 | Am241 | Am241 | 6.66E+02 | 3.52E+04 |
| 566135 | 10124375 | CaNO3 | 2.60E+08 | 3.52E+04 |
| 566135 | 56235 | CCl4 | 2.60E+08 | 3.52E+04 |
| 566135 | Cs137 | Cs137 | 8.30E+02 | 3.52E+04 |
| 566135 | 1809194 | DBBP | 1.50E+07 | 3.52E+04 |
| 566135 | 7782414 | F | 4.90E+08 | 3.52E+04 |
| 566135 | 13520688 | FeNO3 | 7.70E+07 | 3.52E+04 |
| 566135 | H3 | H3 | 4.25E+00 | 3.52E+04 |
| 566135 | 7697372 | HNO3 | 7.60E+07 | 3.52E+04 |
| 566135 | 10377603 | MgNO3 | 3.50E+08 | 3.52E+04 |
| 566135 | 7647145 | Na | 1.67E+09 | 3.52E+04 |
| 566135 | 1310732 | NaOH | 1.00E+06 | 3.52E+04 |
| 566135 | 6484522 | NH4NO3 | 1.80E+07 | 3.52E+04 |
| 566135 | 14797558 | NO3 | 2.87E+09 | 3.52E+04 |
| 566135 | 7601549 | PO4 | 6.00E+07 | 3.52E+04 |
| 566135 | Pu238 | Pu238 | 1.52E+02 | 3.52E+04 |
| 566135 | Pu239 | Pu239 | 1.22E+04 | 3.52E+04 |
| 566135 | Pu240 | Pu240 | 1.36E+03 | 3.52E+04 |
| 566135 | Pu241 | Pu241 | 1.68E+04 | 3.52E+04 |
| 566135 | Pu242 | Pu242 | 1.16E-01 | 3.52E+04 |
| 566135 | Ru106 | Ru106 | 1.19E-04 | 3.52E+04 |
| 566135 | 12808798 | SO4 | 2.90E+07 | 3.52E+04 |
| 566135 | Sr90 | Sr90 | 8.36E+02 | 3.52E+04 |
| 566135 | 126738 | TBP | 2.20E+07 | 3.52E+04 |
| 566135 | U235 | U235 | 2.24E-04 | 3.52E+04 |
| 566135 | U238 | U238 | 3.17E-02 | 3.52E+04 |
| 566136 | Am241 | Am241 | 2.21E+03 | 1.89E+05 |
| 566136 | Co60 | Co60 | 3.69E-01 | 1.89E+05 |
| 566136 | Cs137 | Cs137 | 1.82E+04 | 1.89E+05 |
| 566136 | 7782414 | F | 4.33E+08 | 1.89E+05 |
| 566136 | 13943583 | FeCN | 6.00E+06 | 1.89E+05 |
| 566136 | 7447407 | K | 2.50E+08 | 1.89E+05 |
| 566136 | 7647145 | Na | 5.09E+09 | 1.89E+05 |
| 566136 | 1302427 | NaAl | 3.11E+08 | 1.89E+05 |
| 566136 | 1310732 | NaOH | 3.09E+08 | 1.89E+05 |
| 566136 | 62760 | NaOxal | 8.00E+07 | 1.89E+05 |
| 566136 | #REFI | NaSi | 1.30E+08 | 1.89E+05 |
| 566136 | 6484522 | NH4NO3 | 1.76E+08 | 1.89E+05 |
| 566136 | Nitrite | NO2 | 3.39E+08 | 1.89E+05 |
| 566136 | 14797558 | NO3 | 6.63E+09 | 1.89E+05 |
| 566136 | Pm147 | Pm147 | 1.54E+00 | 1.89E+05 |
| 566136 | 7601549 | PO4 | 1.36E+09 | 1.89E+05 |
| 566136 | Pu238 | Pu238 | 5.20E+02 | 1.89E+05 |
| 566136 | Pu239 | Pu239 | 1.99E+04 | 1.89E+05 |
| 566136 | Pu240 | Pu240 | 4.48E+03 | 1.89E+05 |
| 566136 | Pu241 | Pu241 | 6.66E+04 | 1.89E+05 |
| 566136 | Pu242 | Pu242 | 3.83E-01 | 1.89E+05 |
| 566136 | Ru106 | Ru106 | 5.03E-03 | 1.89E+05 |
| 566136 | 12808798 | SO4 | 2.38E+08 | 1.89E+05 |
| 566136 | Sr90 | Sr90 | 1.09E+04 | 1.89E+05 |
| 566136 | Th232 | Th232 | 3.38E+01 | 1.89E+05 |
| 566136 | U235 | U235 | 7.10E+00 | 1.89E+05 |

*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 566136 | U238 | U238 | 1.57E+02 | 1.89E+05 |
| 566137 | Am241 | Am241 | 2.44E-02 | 2.40E+04 |
| 566137 | Cs137 | Cs137 | 1.57E+01 | 2.40E+04 |
| 566137 | Pu238 | Pu238 | 5.71E-03 | 2.40E+04 |
| 566137 | Pu239 | Pu239 | 4.45E-01 | 2.40E+04 |
| 566137 | Pu240 | Pu240 | 4.96E-02 | 2.40E+04 |
| 566137 | Pu241 | Pu241 | 7.03E-01 | 2.40E+04 |
| 566137 | Pu242 | Pu242 | 4.24E-06 | 2.40E+04 |
| 566137 | Ru106 | Ru106 | 8.65E-07 | 2.40E+04 |
| 566137 | Sr90 | Sr90 | 1.28E+01 | 2.40E+04 |
| 566137 | U235 | U235 | 1.62E-03 | 2.40E+04 |
| 566137 | U238 | U238 | 2.30E-01 | 2.40E+04 |
| 567133 | Am241 | Am241 | 1.13E+00 | 1.67E+03 |
| 567133 | Cs137 | Cs137 | 1.36E+02 | 1.67E+03 |
| 567133 | 7647145 | Na | 3.00E+06 | 1.67E+03 |
| 567133 | 14797558 | NO3 | 2.70E+07 | 1.67E+03 |
| 567133 | Pu238 | Pu238 | 2.63E-01 | 1.67E+03 |
| 567133 | Pu239 | Pu239 | 2.05E+01 | 1.67E+03 |
| 567133 | Pu240 | Pu240 | 2.29E+00 | 1.67E+03 |
| 567133 | Pu241 | Pu241 | 3.24E+01 | 1.67E+03 |
| 567133 | Pu242 | Pu242 | 1.96E-04 | 1.67E+03 |
| 567133 | Ru106 | Ru106 | 2.50E-07 | 1.67E+03 |
| 567133 | Sr90 | Sr90 | 1.02E+02 | 1.67E+03 |
| 567133 | U235 | U235 | 8.76E-05 | 1.67E+03 |
| 567133 | U238 | U238 | 1.24E-02 | 1.67E+03 |
| 567134 | 13473900 | AlNO3 | 4.00E+07 | 1.42E+04 |
| 567134 | Am241 | Am241 | 5.84E+00 | 1.42E+04 |
| 567134 | Cs137 | Cs137 | 3.53E+03 | 1.42E+04 |
| 567134 | H3 | H3 | 1.88E-03 | 1.42E+04 |
| 567134 | 7697372 | HNO3 | 4.80E+08 | 1.42E+04 |
| 567134 | 108101 | MIBK | 1.00E+07 | 1.42E+04 |
| 567134 | 7647145 | Na | 8.00E+06 | 1.42E+04 |
| 567134 | 10588019 | NaCr2 | 1.00E+07 | 1.42E+04 |
| 567134 | 6484522 | NH4NO3 | 6.00E+05 | 1.42E+04 |
| 567134 | 14797558 | NO3 | 1.20E+08 | 1.42E+04 |
| 567134 | Pu238 | Pu238 | 1.36E+00 | 1.42E+04 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 567134 | Pu239 | Pu239 | 1.06E+02 | 1.42E+04 |
| 567134 | Pu240 | Pu240 | 1.18E+01 | 1.42E+04 |
| 567134 | Pu241 | Pu241 | 1.68E+02 | 1.42E+04 |
| 567134 | Pu242 | Pu242 | 1.01E-03 | 1.42E+04 |
| 567134 | Ru106 | Ru106 | 3.27E-04 | 1.42E+04 |
| 567134 | Sr90 | Sr90 | 4.07E+03 | 1.42E+04 |
| 567134 | U235 | U235 | 6.71E-02 | 1.42E+04 |
| 567134 | U238 | U238 | 9.53E+00 | 1.42E+04 |
| 567135 | Am241 | Am241 | 2.82E-01 | 3.48E+02 |
| 567135 | Cs137 | Cs137 | 1.17E+01 | 3.48E+02 |
| 567135 | 7647145 | Na | 5.00E+08 | 3.48E+02 |
| 567135 | 14797558 | NO3 | 1.20E+09 | 3.48E+02 |
| 567135 | #REF! | NPH | 4.00E+07 | 3.48E+02 |
| 567135 | 7601549 | PO4 | 7.00E+07 | 3.48E+02 |
| 567135 | Pu238 | Pu238 | 6.60E-02 | 3.48E+02 |
| 567135 | Pu239 | Pu239 | 5.14E+00 | 3.48E+02 |
| 567135 | Pu240 | Pu240 | 5.73E-01 | 3.48E+02 |
| 567135 | Pu241 | Pu241 | 8.12E+00 | 3.48E+02 |
| 567135 | Pu242 | Pu242 | 4.90E-05 | 3.48E+02 |
| 567135 | Ru106 | Ru106 | 7.30E-07 | 3.48E+02 |
| 567135 | 12808798 | SO4 | 1.00E+08 | 3.48E+02 |
| 567135 | Sr90 | Sr90 | 9.06E+00 | 3.48E+02 |
| 567135 | 126738 | TBP | 1.30E+07 | 3.48E+02 |
| 567135 | U235 | U235 | 6.63E-03 | 3.48E+02 |
| 567135 | U238 | U238 | 9.41E-01 | 3.48E+02 |
| 567136 | Am241 | Am241 | 2.47E+01 | 6.44E+02 |
| 567136 | Cs137 | Cs137 | 4.27E+02 | 6.44E+02 |
| 567136 | 7782414 | F | 6.40E+07 | 6.44E+02 |
| 567136 | 7664939 | H2SO4 | 1.00E+06 | 6.44E+02 |
| 567136 | 7697372 | HNO3 | 1.00E+06 | 6.44E+02 |
| 567136 | 7447407 | K | 6.00E+07 | 6.44E+02 |
| 567136 | 7647145 | Na | 4.10E+08 | 6.44E+02 |
| 567136 | 10588019 | NaCr2 | 1.00E+04 | 6.44E+02 |
| 567136 | 1310732 | NaOH | 1.00E+04 | 6.44E+02 |
| 567136 | 62760 | NaOxal | 1.50E+07 | 6.44E+02 |
| 567136 | 6484522 | NH4NO3 | 6.60E+06 | 6.44E+02 |





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*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 567136 | 14797558 | NO3 | 4.85E+08 | 6.44E+02 |
| 567136 | 7601549 | PO4 | 3.40E+07 | 6.44E+02 |
| 567136 | Pu238 | Pu238 | 5.77E+00 | 6.44E+02 |
| 567136 | Pu239 | Pu239 | 4.50E+02 | 6.44E+02 |
| 567136 | Pu240 | Pu240 | 5.01E+01 | 6.44E+02 |
| 567136 | Pu241 | Pu241 | 7.11E+02 | 6.44E+02 |
| 567136 | Pu242 | Pu242 | 4.29E-03 | 6.44E+02 |
| 567136 | Ru106 | Ru106 | 1.14E-07 | 6.44E+02 |
| 567136 | 12808798 | SO4 | 3.90E+06 | 6.44E+02 |
| 567136 | Sr90 | Sr90 | 4.31E+02 | 6.44E+02 |
| 567136 | U235 | U235 | 2.07E-04 | 6.44E+02 |
| 567136 | U238 | U238 | 2.75E-02 | 6.44E+02 |
| 567137 | Am241 | Am241 | 1.43E+01 | 2.30E+04 |
| 567137 | Cs137 | Cs137 | 9.43E+02 | 2.30E+04 |
| 567137 | 14797558 | NO3 | 2.00E+06 | 2.30E+04 |
| 567137 | Pu238 | Pu238 | 3.37E+00 | 2.30E+04 |
| 567137 | Pu239 | Pu239 | 1.38E+02 | 2.30E+04 |
| 567137 | Pu240 | Pu240 | 2.90E+01 | 2.30E+04 |
| 567137 | Pu241 | Pu241 | 4.30E+02 | 2.30E+04 |
| 567137 | Pu242 | Pu242 | 2.48E-03 | 2.30E+04 |
| 567137 | Ru106 | Ru106 | 2.04E-05 | 2.30E+04 |
| 567137 | Sr90 | Sr90 | 9.14E+02 | 2.30E+04 |
| 567137 | U235 | U235 | 1.37E-02 | 2.30E+04 |
| 567137 | U238 | U238 | 3.17E-01 | 2.30E+04 |
| 568146 | C14 | C14 | 1.05E+02 | 5.84E+05 |
| 568146 | Co60 | Co60 | 6.29E-02 | 5.84E+05 |
| 568146 | Cs134 | Cs134 | 1.09E-04 | 5.84E+05 |
| 568146 | Cs137 | Cs137 | 3.75E-01 | 5.84E+05 |
| 568146 | Eu152 | Eu152 | 6.90E-01 | 5.84E+05 |
| 568146 | Eu154 | Eu154 | 1.49E-01 | 5.84E+05 |
| 568146 | Eu155 | Eu155 | 9.04E-02 | 5.84E+05 |
| 568146 | H3 | H3 | 6.65E+01 | 5.84E+05 |
| 568146 | Sr90 | Sr90 | 5.76E-02 | 5.84E+05 |
| 568146 | U238 | U238 | 1.10E-04 | 5.84E+05 |
| 569140 | Cs137 | Cs137 | 4.75E-01 | 3.20E+01 |
| 569140 | Ru106 | Ru106 | 1.53E-12 | 3.20E+01 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 569140 | Sr90 | Sr90 | 4.54E-01 | 3.20E+01 |
| 569146 | C14 | C14 | 1.07E+02 | 7.83E+05 |
| 569146 | Co60 | Co60 | 1.61E+03 | 7.83E+05 |
| 569146 | Cs134 | Cs134 | 1.78E-04 | 7.83E+05 |
| 569146 | Cs137 | Cs137 | 9.27E+00 | 7.83E+05 |
| 569146 | Eu152 | Eu152 | 3.99E+01 | 7.83E+05 |
| 569146 | Eu154 | Eu154 | 6.29E+01 | 7.83E+05 |
| 569146 | Eu155 | Eu155 | 5.11E-02 | 7.83E+05 |
| 569146 | H3 | H3 | 5.18E+01 | 7.83E+05 |
| 569146 | 7439976 | Hg | 9.00E+05 | 7.83E+05 |
| 569146 | 1310732 | NaOH | 1.00E+08 | 7.83E+05 |
| 569146 | Ni63 | Ni63 | 3.66E+02 | 7.83E+05 |
| 569146 | Pu239 | Pu239 | 2.33E-01 | 7.83E+05 |
| 569146 | Pu240 | Pu240 | 1.57E-02 | 7.83E+05 |
| 569146 | Sb125 | Sb125 | 9.74E+00 | 7.83E+05 |
| 569146 | Sr90 | Sr90 | 9.46E+00 | 7.83E+05 |
| 569146 | U235 | U235 | 2.00E-05 | 7.83E+05 |
| 569146 | U238 | U238 | 2.08E-03 | 7.83E+05 |
| 569147 | C14 | C14 | 8.97E-01 | 1.05E+05 |
| 569147 | Co60 | Co60 | 3.47E+01 | 1.05E+05 |
| 569147 | Cs134 | Cs134 | 2.17E-01 | 1.05E+05 |
| 569147 | Cs137 | Cs137 | 1.53E+02 | 1.05E+05 |
| 569147 | 7758987 | Cu2SO4 | 5.00E+05 | 1.05E+05 |
| 569147 | Eu152 | Eu152 | 6.02E+02 | 1.05E+05 |
| 569147 | Eu154 | Eu154 | 1.57E+02 | 1.05E+05 |
| 569147 | Eu155 | Eu155 | 6.22E+00 | 1.05E+05 |
| 569147 | 7664939 | H2SO4 | 1.00E+07 | 1.05E+05 |
| 569147 | H3 | H3 | 1.27E+01 | 1.05E+05 |
| 569147 | 10588019 | NaCr2 | 3.00E+08 | 1.05E+05 |
| 569147 | Ni63 | Ni63 | 1.37E+02 | 1.05E+05 |
| 569147 | Pu238 | Pu238 | 1.86E-01 | 1.05E+05 |
| 569147 | Pu239 | Pu239 | 4.63E+00 | 1.05E+05 |
| 569147 | Pu240 | Pu240 | 5.14E-01 | 1.05E+05 |
| 569147 | Sr90 | Sr90 | 8.76E+00 | 1.05E+05 |
| 569147 | 7664939 | SulfAcid | 1.00E+07 | 1.05E+05 |
| 569147 | U235 | U235 | 2.78E-03 | 1.05E+05 |

*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 569147 | U238 | U238 | 3.17E-01 | 1.05E+05 |
| 570140 | Am241 | Am241 | 6.59E-03 | 3.12E+03 |
| 570140 | Cs137 | Cs137 | 4.82E-01 | 3.12E+03 |
| 570140 | Pu238 | Pu238 | 1.54E-03 | 3.12E+03 |
| 570140 | Pu239 | Pu239 | 1.20E-01 | 3.12E+03 |
| 570140 | Pu240 | Pu240 | 1.34E-02 | 3.12E+03 |
| 570140 | Pu241 | Pu241 | 1.89E-01 | 3.12E+03 |
| 570140 | Pu242 | Pu242 | 1.14E-06 | 3.12E+03 |
| 570140 | Ru106 | Ru106 | 1.82E-12 | 3.12E+03 |
| 570140 | Sr90 | Sr90 | 4.62E-01 | 3.12E+03 |
| 570140 | U235 | U235 | 1.06E-05 | 3.12E+03 |
| 570140 | U238 | U238 | 1.50E-03 | 3.12E+03 |
| 571140 | Am241 | Am241 | 6.59E-03 | 2.42E+03 |
| 571140 | Cs137 | Cs137 | 4.82E-01 | 2.42E+03 |
| 571140 | Pu238 | Pu238 | 1.54E-03 | 2.42E+03 |
| 571140 | Pu239 | Pu239 | 1.20E-01 | 2.42E+03 |
| 571140 | Pu240 | Pu240 | 1.34E-02 | 2.42E+03 |
| 571140 | Pu241 | Pu241 | 1.89E-01 | 2.42E+03 |
| 571140 | Pu242 | Pu242 | 1.14E-06 | 2.42E+03 |
| 571140 | Ru106 | Ru106 | 1.82E-12 | 2.42E+03 |
| 571140 | Sr90 | Sr90 | 4.62E-01 | 2.42E+03 |
| 571140 | U235 | U235 | 1.06E-05 | 2.42E+03 |
| 571140 | U238 | U238 | 1.50E-03 | 2.42E+03 |
| 571149 | Ce144 | Ce144 | 5.14E-06 | 6.77E+04 |
| 571149 | Co60 | Co60 | 2.20E+03 | 6.77E+04 |
| 571149 | Cs134 | Cs134 | 1.19E+01 | 6.77E+04 |
| 571149 | Cs137 | Cs137 | 2.38E+03 | 6.77E+04 |
| 571149 | H3 | H3 | 5.09E-01 | 6.77E+04 |
| 571149 | Pu239 | Pu239 | 2.06E+01 | 6.77E+04 |
| 571149 | Ru106 | Ru106 | 6.32E+00 | 6.77E+04 |
| 571149 | Sr90 | Sr90 | 1.79E+03 | 6.77E+04 |
| 572150 | C14 | C14 | 6.31E-01 | 8.19E+04 |
| 572150 | Co60 | Co60 | 5.18E+02 | 8.19E+04 |
| 572150 | Cs137 | Cs137 | 1.38E+00 | 8.19E+04 |
| 572150 | Eu152 | Eu152 | 1.34E+01 | 8.19E+04 |
| 572150 | Eu154 | Eu154 | 2.06E+01 | 8.19E+04 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 572150 | H3 | H3 | 2.83E+00 | 8.19E+04 |
| 572150 | Ni63 | Ni63 | 9.00E+01 | 8.19E+04 |
| 572150 | Sr90 | Sr90 | 1.37E+00 | 8.19E+04 |
| 573134 | Am241 | Am241 | 1.77E+00 | 7.04E+03 |
| 573134 | Cs137 | Cs137 | 1.17E+04 | 7.04E+03 |
| 573134 | 13943583 | FeCN | 6.42E+07 | 7.04E+03 |
| 573134 | 7647145 | Na | 1.04E+10 | 7.04E+03 |
| 573134 | 62760 | NaOxal | 1.00E+06 | 7.04E+03 |
| 573134 | 14797558 | NO3 | 2.39E+10 | 7.04E+03 |
| 573134 | 7601549 | PO4 | 1.26E+09 | 7.04E+03 |
| 573134 | Pu238 | Pu238 | 4.14E-01 | 7.04E+03 |
| 573134 | Pu239 | Pu239 | 3.22E+01 | 7.04E+03 |
| 573134 | Pu240 | Pu240 | 3.59E+00 | 7.04E+03 |
| 573134 | Pu241 | Pu241 | 5.09E+01 | 7.04E+03 |
| 573134 | Pu242 | Pu242 | 3.07E-04 | 7.04E+03 |
| 573134 | Ru106 | Ru106 | 2.33E-05 | 7.04E+03 |
| 573134 | 12808798 | SO4 | 1.67E+09 | 7.04E+03 |
| 573134 | Sr90 | Sr90 | 1.07E+04 | 7.04E+03 |
| 573134 | U235 | U235 | 1.26E-02 | 7.04E+03 |
| 573134 | U238 | U238 | 1.79E+00 | 7.04E+03 |
| 573136 | 13473900 | AlNO3 | 5.00E+06 | 1.81E+04 |
| 573136 | Am241 | Am241 | 3.20E+01 | 1.81E+04 |
| 573136 | Co60 | Co60 | 1.02E+02 | 1.81E+04 |
| 573136 | Cs137 | Cs137 | 3.22E+03 | 1.81E+04 |
| 573136 | 7782414 | F | 5.00E+07 | 1.81E+04 |
| 573136 | H3 | H3 | 1.74E+01 | 1.81E+04 |
| 573136 | 7697372 | HNO3 | 1.00E+06 | 1.81E+04 |
| 573136 | 7447407 | K | 8.00E+07 | 1.81E+04 |
| 573136 | 7647145 | Na | 3.50E+08 | 1.81E+04 |
| 573136 | 10588019 | NaCr2 | 1.00E+05 | 1.81E+04 |
| 573136 | 6484522 | NH4NO3 | 1.89E+09 | 1.81E+04 |
| 573136 | 14797558 | NO3 | 4.02E+08 | 1.81E+04 |
| 573136 | 144627 | Oxalate | 1.20E+07 | 1.81E+04 |
| 573136 | 7601549 | PO4 | 2.90E+07 | 1.81E+04 |
| 573136 | Pu238 | Pu238 | 7.45E+00 | 1.81E+04 |
| 573136 | Pu239 | Pu239 | 1.90E+03 | 1.81E+04 |

*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 573136 | Pu240 | Pu240 | 6.47E+01 | 1.81E+04 |
| 573136 | Pu241 | Pu241 | 9.17E+02 | 1.81E+04 |
| 573136 | Pu242 | Pu242 | 5.53E-03 | 1.81E+04 |
| 573136 | Ru106 | Ru106 | 5.02E-03 | 1.81E+04 |
| 573136 | 12808798 | SO4 | 4.30E+06 | 1.81E+04 |
| 573136 | Sr90 | Sr90 | 1.27E+03 | 1.81E+04 |
| 573136 | U235 | U235 | 5.87E+00 | 1.81E+04 |
| 573136 | U238 | U238 | 7.20E+00 | 1.81E+04 |
| 573137 | Am241 | Am241 | 4.73E+01 | 4.65E+04 |
| 573137 | Cs137 | Cs137 | 1.99E+04 | 4.65E+04 |
| 573137 | 7782414 | F | 3.39E+08 | 4.65E+04 |
| 573137 | 13943583 | FeCN | 1.97E+07 | 4.65E+04 |
| 573137 | 7664939 | H2SO4 | 1.40E+09 | 4.65E+04 |
| 573137 | 7447407 | K | 4.40E+08 | 4.65E+04 |
| 573137 | 7647145 | Na | 7.09E+09 | 4.65E+04 |
| 573137 | 1302427 | NaAl | 3.58E+08 | 4.65E+04 |
| 573137 | 1310732 | NaOH | 7.35E+07 | 4.65E+04 |
| 573137 | #REF! | NaSi | 1.48E+08 | 4.65E+04 |
| 573137 | 506876 | NH4CO3 | 2.11E+07 | 4.65E+04 |
| 573137 | 6484522 | NH4NO3 | 1.92E+08 | 4.65E+04 |
| 573137 | Nitrite | NO2 | 2.83E+08 | 4.65E+04 |
| 573137 | 14797558 | NO3 | 1.15E+10 | 4.65E+04 |
| 573137 | 144627 | Oxalate | 6.60E+07 | 4.65E+04 |
| 573137 | 7601549 | PO4 | 1.55E+09 | 4.65E+04 |
| 573137 | Pu238 | Pu238 | 1.08E+01 | 4.65E+04 |
| 573137 | Pu239 | Pu239 | 9.55E+02 | 4.65E+04 |
| 573137 | Pu240 | Pu240 | 9.65E+01 | 4.65E+04 |
| 573137 | Pu241 | Pu241 | 1.26E+03 | 4.65E+04 |
| 573137 | Pu242 | Pu242 | 8.25E-03 | 4.65E+04 |
| 573137 | Ru106 | Ru106 | 8.94E-06 | 4.65E+04 |
| 573137 | 12808798 | SO4 | 6.96E+08 | 4.65E+04 |
| 573137 | Sr90 | Sr90 | 2.50E+04 | 4.65E+04 |
| 573137 | U235 | U235 | 1.19E-02 | 4.65E+04 |
| 573137 | U238 | U238 | 7.06E-01 | 4.65E+04 |
| 573150 | Co60 | Co60 | 3.76E+01 | 1.05E+05 |
| 573151 | C14 | C14 | 6.31E-01 | 1.04E+05 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 573151 | Co60 | Co60 | 5.70E+02 | 1.04E+05 |
| 573151 | Cs134 | Cs134 | 2.64E-04 | 1.04E+05 |
| 573151 | Cs137 | Cs137 | 2.69E+00 | 1.04E+05 |
| 573151 | Eu152 | Eu152 | 1.30E+01 | 1.04E+05 |
| 573151 | Eu154 | Eu154 | 1.96E+01 | 1.04E+05 |
| 573151 | Eu155 | Eu155 | 1.80E-01 | 1.04E+05 |
| 573151 | H3 | H3 | 3.82E+00 | 1.04E+05 |
| 573151 | 7632044 | KBO2 | 3.00E+06 | 1.04E+05 |
| 573151 | 10588019 | NaCr2 | 1.70E+06 | 1.04E+05 |
| 573151 | 62760 | NaOxal | 2.00E+06 | 1.04E+05 |
| 573151 | 5329146 | NaSulfam | 2.00E+06 | 1.04E+05 |
| 573151 | Ni63 | Ni63 | 5.05E+01 | 1.04E+05 |
| 573151 | Pu239 | Pu239 | 2.71E-02 | 1.04E+05 |
| 573151 | Pu240 | Pu240 | 3.01E-03 | 1.04E+05 |
| 573151 | Sr90 | Sr90 | 1.47E+00 | 1.04E+05 |
| 573151 | U235 | U235 | 5.00E-05 | 1.04E+05 |
| 573151 | U238 | U238 | 6.24E-03 | 1.04E+05 |
| 573152 | Co60 | Co60 | 8.16E-01 | 2.90E+05 |
| 573152 | Cs134 | Cs134 | 6.39E-04 | 2.90E+05 |
| 573152 | Cs137 | Cs137 | 1.27E+01 | 2.90E+05 |
| 573152 | Eu152 | Eu152 | 6.15E+00 | 2.90E+05 |
| 573152 | Eu154 | Eu154 | 9.38E-01 | 2.90E+05 |
| 573152 | Eu155 | Eu155 | 6.47E-02 | 2.90E+05 |
| 573152 | H3 | H3 | 4.88E-01 | 2.90E+05 |
| 573152 | 10588019 | NaCr2 | 4.00E+04 | 2.90E+05 |
| 573152 | Pu238 | Pu238 | 9.17E-04 | 2.90E+05 |
| 573152 | Pu239 | Pu239 | 8.45E-02 | 2.90E+05 |
| 573152 | Pu240 | Pu240 | 3.50E-03 | 2.90E+05 |
| 573152 | Sr90 | Sr90 | 3.27E-01 | 2.90E+05 |
| 573152 | U235 | U235 | 2.82E-02 | 2.90E+05 |
| 573152 | U238 | U238 | 2.78E-02 | 2.90E+05 |
| 574135 | Am241 | Am241 | 9.01E+00 | 3.60E+04 |
| 574135 | Cs137 | Cs137 | 2.61E+02 | 3.60E+04 |
| 574135 | H3 | H3 | 1.85E+04 | 3.60E+04 |
| 574135 | I129 | I129 | 1.07E-01 | 3.60E+04 |
| 574135 | Pm147 | Pm147 | 3.12E-01 | 3.60E+04 |

*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 574135 | Pu238 | Pu238 | 2.26E+00 | 3.60E+04 |
| 574135 | Pu239 | Pu239 | 1.05E+02 | 3.60E+04 |
| 574135 | Pu240 | Pu240 | 1.67E+01 | 3.60E+04 |
| 574135 | Pu241 | Pu241 | 2.88E+02 | 3.60E+04 |
| 574135 | Pu242 | Pu242 | 1.43E-03 | 3.60E+04 |
| 574135 | Ru106 | Ru106 | 3.08E-01 | 3.60E+04 |
| 574135 | Sr90 | Sr90 | 2.63E+02 | 3.60E+04 |
| 574135 | U235 | U235 | 6.62E-03 | 3.60E+04 |
| 574135 | U238 | U238 | 2.13E-01 | 3.60E+04 |
| 574136 | Am241 | Am241 | 5.90E+01 | 8.89E+04 |
| 574136 | Cs137 | Cs137 | 1.98E+02 | 8.89E+04 |
| 574136 | Eu154 | Eu154 | 1.10E-06 | 8.89E+04 |
| 574136 | 7697372 | HNO3 | 1.50E+07 | 8.89E+04 |
| 574136 | 7647145 | Na | 3.00E+06 | 8.89E+04 |
| 574136 | 14797558 | NO3 | 8.35E+06 | 8.89E+04 |
| 574136 | #REF! | NPH | 2.40E+07 | 8.89E+04 |
| 574136 | Pu238 | Pu238 | 1.39E+01 | 8.89E+04 |
| 574136 | Pu239 | Pu239 | 5.23E+02 | 8.89E+04 |
| 574136 | Pu240 | Pu240 | 1.20E+02 | 8.89E+04 |
| 574136 | Pu241 | Pu241 | 1.78E+03 | 8.89E+04 |
| 574136 | Pu242 | Pu242 | 1.02E-02 | 8.89E+04 |
| 574136 | Ru106 | Ru106 | 1.33E-05 | 8.89E+04 |
| 574136 | Sr90 | Sr90 | 3.76E+02 | 8.89E+04 |
| 574136 | 78466 | TBPPH | 1.40E+07 | 8.89E+04 |
| 574136 | U235 | U235 | 1.59E-02 | 8.89E+04 |
| 574136 | U238 | U238 | 4.61E-01 | 8.89E+04 |
| 574152 | Co60 | Co60 | 6.60E-01 | 2.05E+03 |
| 574152 | Cs134 | Cs134 | 6.39E-04 | 2.05E+03 |
| 574152 | Cs137 | Cs137 | 1.21E+01 | 2.05E+03 |
| 574152 | Eu152 | Eu152 | 4.44E+00 | 2.05E+03 |
| 574152 | Eu154 | Eu154 | 7.23E-01 | 2.05E+03 |
| 574152 | Eu155 | Eu155 | 6.16E-02 | 2.05E+03 |
| 574152 | H3 | H3 | 3.62E-01 | 2.05E+03 |
| 574152 | 10588019 | NaCr2 | 4.00E+04 | 2.05E+03 |
| 574152 | Pu239 | Pu239 | 3.15E-02 | 2.05E+03 |
| 574152 | Pu240 | Pu240 | 3.50E-03 | 2.05E+03 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 574152 | Sr90 | Sr90 | 2.77E-01 | 2.05E+03 |
| 574152 | U235 | U235 | 2.40E-04 | 2.05E+03 |
| 574152 | U238 | U238 | 2.78E-02 | 2.05E+03 |
| 575135 | Am241 | Am241 | 6.72E+00 | 1.97E+04 |
| 575135 | Cs137 | Cs137 | 4.78E+03 | 1.97E+04 |
| 575135 | H3 | H3 | 2.12E+03 | 1.97E+04 |
| 575135 | I129 | I129 | 1.27E-02 | 1.97E+04 |
| 575135 | 7647145 | Na | 2.10E+07 | 1.97E+04 |
| 575135 | 10588019 | NaCr2 | 6.10E+05 | 1.97E+04 |
| 575135 | 6484522 | NH4NO3 | 7.03E+08 | 1.97E+04 |
| 575135 | 14797558 | NO3 | 1.04E+09 | 1.97E+04 |
| 575135 | #REF! | NPH | 1.25E+08 | 1.97E+04 |
| 575135 | Pm147 | Pm147 | 2.51E+00 | 1.97E+04 |
| 575135 | Pu238 | Pu238 | 1.47E+00 | 1.97E+04 |
| 575135 | Pu239 | Pu239 | 1.15E+02 | 1.97E+04 |
| 575135 | Pu240 | Pu240 | 1.28E+01 | 1.97E+04 |
| 575135 | Pu241 | Pu241 | 1.82E+02 | 1.97E+04 |
| 575135 | Pu242 | Pu242 | 1.09E-03 | 1.97E+04 |
| 575135 | Ru106 | Ru106 | 3.29E+00 | 1.97E+04 |
| 575135 | Sn113 | Sn113 | 6.21E-03 | 1.97E+04 |
| 575135 | 12808798 | SO4 | 2.90E+07 | 1.97E+04 |
| 575135 | Sr90 | Sr90 | 4.68E+03 | 1.97E+04 |
| 575135 | 126738 | TBP | 7.29E+07 | 1.97E+04 |
| 575135 | U235 | U235 | 8.08E-03 | 1.97E+04 |
| 575135 | U238 | U238 | 1.15E+00 | 1.97E+04 |
| 575136 | Am241 | Am241 | 3.75E-01 | 3.01E+04 |
| 575136 | 50328 | BP | 2.20E+08 | 3.01E+04 |
| 575136 | Cs137 | Cs137 | 1.65E+03 | 3.01E+04 |
| 575136 | H3 | H3 | 3.46E-01 | 3.01E+04 |
| 575136 | 506876 | NH4CO3 | 5.20E+08 | 3.01E+04 |
| 575136 | 14797558 | NO3 | 3.21E+08 | 3.01E+04 |
| 575136 | #REF! | NPH | 2.56E+08 | 3.01E+04 |
| 575136 | Pu238 | Pu238 | 8.77E-02 | 3.01E+04 |
| 575136 | Pu239 | Pu239 | 6.83E+00 | 3.01E+04 |
| 575136 | Pu240 | Pu240 | 7.61E-01 | 3.01E+04 |
| 575136 | Pu241 | Pu241 | 1.08E+01 | 3.01E+04 |





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*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | Casid | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 575136 | Pu242 | Pu242 | 6.51E-05 | 3.01E+04 |
| 575136 | Ru106 | Ru106 | 4.83E-05 | 3.01E+04 |
| 575136 | Sr90 | Sr90 | 9.31E+02 | 3.01E+04 |
| 575136 | 126738 | TBP | 1.00E+08 | 3.01E+04 |
| 575136 | U235 | U235 | 9.66E-02 | 3.01E+04 |
| 575136 | U238 | U238 | 1.37E+01 | 3.01E+04 |
| 575137 | Am241 | Am241 | 1.32E-01 | 1.83E+04 |
| 575137 | Cs137 | Cs137 | 1.04E-01 | 1.83E+04 |
| 575137 | Pu238 | Pu238 | 3.10E-02 | 1.83E+04 |
| 575137 | Pu239 | Pu239 | 1.17E+00 | 1.83E+04 |
| 575137 | Pu240 | Pu240 | 2.67E-01 | 1.83E+04 |
| 575137 | Pu241 | Pu241 | 3.98E+00 | 1.83E+04 |
| 575137 | Pu242 | Pu242 | 2.29E-05 | 1.83E+04 |
| 575137 | Ru106 | Ru106 | 2.32E-10 | 1.83E+04 |
| 575137 | Sr90 | Sr90 | 9.28E-02 | 1.83E+04 |
| 575137 | U235 | U235 | 3.02E-05 | 1.83E+04 |
| 575137 | U238 | U238 | 6.65E-04 | 1.83E+04 |
| 577152 | C14 | C14 | 6.31E-01 | 1.18E+05 |
| 577152 | Co60 | Co60 | 3.86E+02 | 1.18E+05 |
| 577152 | Cs134 | Cs134 | 8.52E-06 | 1.18E+05 |
| 577152 | Cs137 | Cs137 | 1.18E+00 | 1.18E+05 |
| 577152 | Eu152 | Eu152 | 1.18E+01 | 1.18E+05 |
| 577152 | Eu154 | Eu154 | 1.86E+01 | 1.18E+05 |
| 577152 | Eu155 | Eu155 | 2.44E-03 | 1.18E+05 |
| 577152 | H3 | H3 | 3.01E+00 | 1.18E+05 |
| 577152 | 10588019 | NaCr2 | 3.60E+06 | 1.18E+05 |
| 577152 | 62760 | NaOxal | 2.00E+06 | 1.18E+05 |
| 577152 | 5329146 | NaSulfam | 2.00E+06 | 1.18E+05 |
| 577152 | Pu239 | Pu239 | 4.60E-04 | 1.18E+05 |
| 577152 | Pu240 | Pu240 | 4.00E-05 | 1.18E+05 |
| 577152 | Sr90 | Sr90 | 1.36E+00 | 1.18E+05 |
| 577152 | U235 | U235 | 5.00E-05 | 1.18E+05 |
| 577152 | U238 | U238 | 5.94E-03 | 1.18E+05 |
| 578152 | C14 | C14 | 4.04E-02 | 4.40E+05 |
| 578152 | Co60 | Co60 | 7.00E-01 | 4.40E+05 |
| 578152 | Cs134 | Cs134 | 1.15E-05 | 4.40E+05 |
| 578152 | Cs137 | Cs137 | 4.46E+00 | 4.40E+05 |
| 578152 | Eu152 | Eu152 | 9.28E+00 | 4.40E+05 |
| 578152 | Eu154 | Eu154 | 3.97E+00 | 4.40E+05 |
| 578152 | Eu155 | Eu155 | 9.08E-02 | 4.40E+05 |
| 578152 | H3 | H3 | 4.20E-02 | 4.40E+05 |
| 578152 | 10588019 | NaCr2 | 9.00E+04 | 4.40E+05 |
| 578152 | Pu238 | Pu238 | 4.29E-03 | 4.40E+05 |
| 578152 | Pu239 | Pu239 | 1.08E-01 | 4.40E+05 |
| 578152 | Pu240 | Pu240 | 6.69E-03 | 4.40E+05 |
| 578152 | Sr90 | Sr90 | 8.25E-01 | 4.40E+05 |
| 578152 | U235 | U235 | 4.94E-02 | 4.40E+05 |
| 578152 | U238 | U238 | 1.59E-01 | 4.40E+05 |
| 579147 | Co60 | Co60 | 1.98E+01 | 3.10E+04 |
| 580147 | C14 | C14 | 6.50E-01 | 1.51E+05 |
| 580147 | Co60 | Co60 | 4.68E+02 | 1.51E+05 |
| 580147 | Cs134 | Cs134 | 5.42E-04 | 1.51E+05 |
| 580147 | Cs137 | Cs137 | 3.98E+00 | 1.51E+05 |
| 580147 | Eu152 | Eu152 | 1.41E+01 | 1.51E+05 |
| 580147 | Eu154 | Eu154 | 2.11E+01 | 1.51E+05 |
| 580147 | Eu155 | Eu155 | 3.54E-02 | 1.51E+05 |
| 580147 | H3 | H3 | 4.86E+00 | 1.51E+05 |
| 580147 | 10588019 | NaCr2 | 2.10E+06 | 1.51E+05 |
| 580147 | 62760 | NaOxal | 2.00E+06 | 1.51E+05 |
| 580147 | 5329146 | NaSulfam | 2.00E+06 | 1.51E+05 |
| 580147 | Ni63 | Ni63 | 8.10E+01 | 1.51E+05 |
| 580147 | Pu238 | Pu238 | 5.15E-04 | 1.51E+05 |
| 580147 | Pu239 | Pu239 | 5.27E-02 | 1.51E+05 |
| 580147 | Pu240 | Pu240 | 5.84E-03 | 1.51E+05 |
| 580147 | Sr90 | Sr90 | 1.19E+01 | 1.51E+05 |
| 580147 | 7664939 | SulfAcid | 1.30E+07 | 1.51E+05 |
| 580147 | U235 | U235 | 2.30E-04 | 1.51E+05 |
| 580147 | U238 | U238 | 2.73E-02 | 1.51E+05 |
| 581147 | C14 | C14 | 5.50E-02 | 2.97E+05 |
| 581147 | Co60 | Co60 | 1.18E+00 | 2.97E+05 |
| 581147 | Cs134 | Cs134 | 1.23E-04 | 2.97E+05 |
| 581147 | Cs137 | Cs137 | 9.93E-01 | 2.97E+05 |

*Table B2-9. Aggregated Inventories of Waste Sites: Subsurface. (9 sheets)*

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 581147 | Eu152 | Eu152 | 9.35E+00 | 2.97E+05 |
| 581147 | Eu154 | Eu154 | 2.07E+00 | 2.97E+05 |
| 581147 | Eu155 | Eu155 | 1.71E-01 | 2.97E+05 |
| 581147 | H3 | H3 | 4.27E-01 | 2.97E+05 |
| 581147 | 10588019 | NaCr2 | 6.00E+04 | 2.97E+05 |
| 581147 | Pu238 | Pu238 | 1.16E-05 | 2.97E+05 |
| 581147 | Pu239 | Pu239 | 3.30E-01 | 2.97E+05 |
| 581147 | Pu240 | Pu240 | 1.52E-03 | 2.97E+05 |
| 581147 | Sr90 | Sr90 | 1.14E+01 | 2.97E+05 |
| 581147 | U235 | U235 | 1.41E-02 | 2.97E+05 |
| 581147 | U238 | U238 | 1.58E-02 | 2.97E+05 |
| 589127 | Co60 | Co60 | 8.79E+01 | 7.61E+04 |
| 590121 | Co60 | Co60 | 5.94E+01 | 1.04E+05 |
| 590121 | Pu239 | Pu239 | 4.14E+01 | 1.04E+05 |
| 590121 | U235 | U235 | 3.11E-05 | 1.04E+05 |
| 590121 | U238 | U238 | 3.35E-07 | 1.04E+05 |
| 591122 | 108101 | MIBK | 3.00E+06 | 8.06E+01 |
| 591122 | 14797558 | NO3 | 1.00E+06 | 8.06E+01 |
| 591122 | 7440611 | U | 2.00E+06 | 8.06E+01 |
| 592116 | Co60 | Co60 | 5.51E-06 | 1.85E+05 |
| 592116 | Th232 | Th232 | 2.19E-03 | 1.85E+05 |

| Cell Id | CasId | Name | Soil Inventory Ci or g | Soil Volume m3 |
|---|---|---|---|---|
| 592116 | U235 | U235 | 3.41E-01 | 1.85E+05 |
| 592116 | U238 | U238 | 7.31E+00 | 1.85E+05 |
| 593116 | Co60 | Co60 | 2.13E-05 | 3.69E+04 |
| 593116 | U235 | U235 | 3.42E-01 | 3.69E+04 |
| 593116 | U238 | U238 | 7.31E+00 | 3.69E+04 |
| 594115 | 7440224 | AgI | 3.00E+05 | 1.07E+04 |
| 594115 | 7440417 | Be | 1.00E+04 | 1.07E+04 |
| 594115 | 7440439 | CdII | 2.00E+04 | 1.07E+04 |
| 594115 | 7440473 | CrVI | 1.00E+06 | 1.07E+04 |
| 594115 | 7440508 | CuII | 2.00E+07 | 1.07E+04 |
| 594115 | 7782414 | F | 2.00E+06 | 1.07E+04 |
| 594115 | 7439976 | Hg | 1.00E+04 | 1.07E+04 |
| 594115 | 7440020 | NiII | 3.00E+06 | 1.07E+04 |
| 594115 | 7439921 | PbII | 6.00E+05 | 1.07E+04 |
| 594115 | 7440611 | U | 1.00E+07 | 1.07E+04 |
| 594115 | Zn65 | ZnII | 1.00E+06 | 1.07E+04 |
| 594116 | Cs137 | Cs137 | 9.17E+02 | 1.63E+04 |
| 594116 | Pu239 | Pu239 | 6.00E-02 | 1.63E+04 |
| 594116 | Pu240 | Pu240 | 1.70E-02 | 1.63E+04 |
| 594116 | Sr90 | Sr90 | 9.15E+02 | 1.63E+04 |





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# Appendix B3

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# B3.0 Transport

Transport refers to the movement of a contaminant in the environment from the source to the potential receptor, typically to a human or another organism. Transport modeling is divided into two regions (near and far field) depending on whether natural phenomena or the chemical and physical characteristics of the waste predominate (Till and Meyer 1983). For the far-field case, natural phenomena are the predominant transport mechanisms for the contaminant. For the near field case, the chemical and physical properties of the contaminants are the predominant transport mechanisms. Neither near-field nor far-field effects are solely responsible for the transport to a receptor, and for the *Hanford Remedial Action Environmental Impact Statement* (EIS) both effects are modeled for a given exposure scenario.

A unit transport analysis (UTA) was conducted to generate unit concentrations for soil, groundwater, surface water, and air at multiple locations within an 80-km (50-mi) radius at years 40, 100, 140, 1000, and 10,000. Because millions of computer modeling runs were made to generate unit soil, air, groundwater, and surface water concentrations and because the UTA output only represents an intermediate step in presenting information as part of this risk assessment, a summary of the output results is not presented, although the output data are available upon request. The scope of the effort associated with generating unit concentrations for all constituents is summarized as follows.

- Define transport scenarios.
- Determine characteristics in the environmental settings.
- Collect and review physical source-term data.
- Develop a structure for performing unit transport simulations and developing the database associated with those simulations for the following environments: soils, ponds, rivers, and groundwater.
- Develop a structure for analysis of unit transport results in the following environments: groundwater (soils), groundwater (ponds), surface water (Columbia River), and atmosphere.
- Develop an interface and pre- and post-processing programs.
- Identify the distribution coefficient ($K_d$) per environmental setting per constituent.
- Modify the Multimedia Environmental Pollutant Assessment System (MEPAS) to run as compartments, providing spatially varying results.
- Determine the number of matrix simulations.
- Analyze the unit transport through the following transport media: groundwater (soils), groundwater (ponds), surface water (Columbia River), and atmosphere.
- Generate unit concentrations in soil, groundwater, surface water, and atmospheric media at multiple locations within an 80-km (50-mi) radius of the center of the Hanford Site for multiple constituents in two waste forms (i.e., contaminated soils and ponded wastes) for years 40, 100, 140, 1000, and 10,000.

The baseline risk is evaluated for the year 1989 ($T_0$) and the five future times. These times were are selected based on the following logic.

- $T_0$ is 1989, the start of remedial activities.
- $T_{40}$ is 2029, the anticipated completion of remedial activities.
- $T_{100}$ is 2089, when the postulated loss of institutional controls occurs in the absence of any remedial activities.
- $T_{140}$ is 2129, when the postulated loss of institutional controls occurs after completion of remedial activities.
- $T_{1000}$ is an intermediate time between $T_{140}$ and $T_{10000}$.
- $T_{10000}$ is consistent with the U.S. Environmental Protection Agency's performance assessment regulations for waste repositories (40 CFR Part 191).

## *B3.1 Unit Transport Analysis*

Although the current conditions at the Site have been determined under the source-term analysis, future conditions must also be assessed. To assess future impacts to surrounding populations, the environment, or workers, a transport analysis was performed to project where the contaminants might go. The transport, migration, and fate of contaminants in the environment was analyzed at locations away from each grid-cell source. The transport analysis temporally and spatially redistributes the contaminants within the 80-km (50-mi) radius for each environmental medium (i.e., soil, groundwater, surface water, and air). Following redistribution of the contaminants by the transport analysis, new contaminant levels in the soil, groundwater, surface water, and air were determined in each grid cell. The transport analysis assumes that all of the source-term contaminants can be released to the environment over time.

Before analyzing transport, a sensitivity analysis was performed to determine conditions of linearity. For example, if the concentration at the receptor varies linearly with the mass of contaminant at the source, doubling the emission rate from the source would double the contaminant concentration rate at the receptor. Under conditions of linearity, it is not necessary to know the source strength prior to performing the transport analysis. If, for example, the assessment is linear with respect to waste-site inventory (e.g., a temporally far-field case), a unit inventory (e.g., 1 Ci or 1 kg) could be assumed for the waste site, resulting in a unit environmental concentration at the receptor. When the inventory is determined at the source, the predicted concentration at the receptor is the unit concentration times the inventory. Each time the source is changed, the predicted concentration at the receptor is determined by simple multiplication. In effect, the transport computer codes only have to be run once, which results in tremendous time and cost savings.

### *B3.1.1 Calculations of Linearity*

Source-term area, mass, and concentration are the important parameters driving the linearity of the Modular Risk Analysis (MRA) at Hanford. The importance of these parameters stems from the relevant assumptions, which are as follows.

Contaminant movement through the subsurface environment for all non-standing-water waste sites (e.g., contaminated soils) is mainly driven by precipitation, resulting in deep-drainage percolation. For those sites that do not contain concentration information, the source-term concentration (i.e., total concentration) is determined from the mass reported for the waste site divided by the total volume:

$$C_T = \frac{M}{V_T} = \frac{M}{A\ T} \tag{1}$$

where $C_T$ is the total concentration (mass per total volume), M is the mass or inventory of the constituent, $V_T$ is the total volume of contamination at the site, A is the area of contamination, and T is the thickness of the contamination. $C_T$ is used to calculate the dissolved concentration as follows:

$$C_o = \frac{C_T}{\theta + \beta_d\ K_d} \tag{2}$$

where $C_o$ is the dissolved concentration, $\theta$ is the moisture content, $\beta_d$ is the bulk density, and $K_d$ is the distribution (partition or equilibrium) coefficient for the chemical of concern. In the case of constituents undergoing radioactive decay, the $K_d$ of both the parent and daughter are assigned the value of the $K_d$ of the parent.

The contaminant mass flux from the waste site is assumed to be equal to the water mass flux times the dissolved contaminant concentration:

$$Q_c = C_o\ Q \tag{3}$$

where $Q_c$ is the contaminant mass flux and Q is the water volumetric flux rate, where Q is defined as follows:

$$Q = i\ A \tag{4}$$

where i is the deep-drainage percolation rate (i.e., infiltration rate, Darcy velocity, or volumetric water discharge per unit area), and A is the area of contamination, as in Equation (1).

Based on Equations (1) through (4), the contaminant mass flux from the waste site can be calculated as follows:

$$Q_c = \frac{M\ i}{T\ (\theta + \beta_d\ K_d)} \tag{5}$$

Based on Equation (5), the contaminant mass flux and, hence, the receptor concentration and risk for a given contaminant appears to be proportional to and solely dependent on the mass at the waste site, assuming the same geologic setting. The mass flux would only be proportional to the receptor concentration as long as the concentration is below some limiting amount (e.g., $C_o$), where the relationship is linear.

Although the area appears to have no impact on the resulting receptor concentrations, its effects appear in the solution to the advective-dispersive equation. The instantaneous solution of the advective-dispersive equation for an area source in a saturated zone is as follows:

$$C_i = \delta \, X \, Y \, Z \qquad \text{where } X \equiv \text{flow direction} \tag{6}$$

in which

$$\delta = M / (R_f \, \eta_e) \tag{7}$$

$$X = \left(\frac{1}{2\,L}\right) \exp(-\lambda\, t) \left( \operatorname{erf}\left[ \frac{x + \frac{L}{2} - u_p^{*}\, t}{(4\, D_x^{*}\, t)^{0.5}} \right] - \operatorname{erf}\left[ \frac{x - \frac{L}{2} - u_p^{*}\, t}{(4\, D_x^{*}\, t)^{0.5}} \right] \right) \tag{8}$$

$$Y = \left(\frac{1}{2\,W}\right) \left( \operatorname{erf}\left[ \frac{y + \frac{W}{2}}{(4\, D_y^{*}\, t)^{0.5}} \right] - \operatorname{erf}\left[ \frac{y - \frac{W}{2}}{(4\, D_y^{*}\, t)^{0.5}} \right] \right) \tag{9}$$

$$Z = \left(\frac{1}{H}\right) \left\{ 1 + 2 \sum_{n=1}^{\infty} \left[ \exp\left( - \frac{n^2\, \pi^2\, D_z^{*}\, t}{H^2} \right) \cos\left( \frac{n\, \pi\, z}{H} \right) \right] \right\} \tag{10}$$

$$R_f = 1 + \frac{\beta_d\, K_d}{\eta_e} \tag{11}$$

$$D^{*} = \frac{D + 190 \text{ cm}^2/\text{yr}}{R_f} \tag{12}$$

$$D = \alpha\, u_p \tag{13}$$

$$u^* = u_p / R_f \tag{14}$$

$$v_d = u_p \eta_e \tag{15}$$

$$A = L W \tag{16}$$

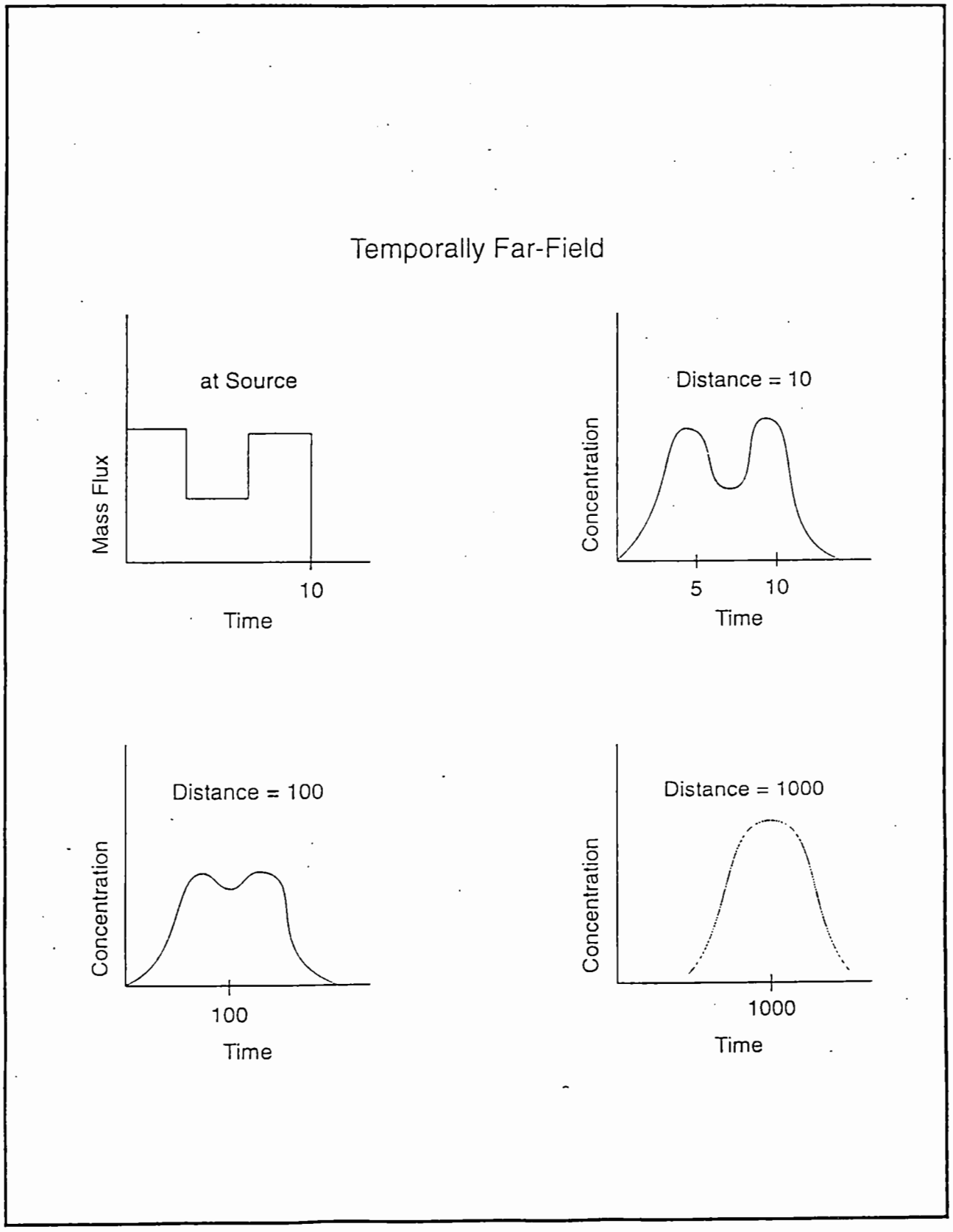
The contaminant mass flux from the waste site and the instantaneous concentration are combined through the convolution integral to provide the concentration at the receptor:

$$C(\tau) = \int_0^{\tau} Q_C(t)\ C_i(\tau - t)\ dt \tag{17}$$

where $C_i$ is the instantaneous concentration solution to the advective-dispersive equation; $\delta$ is a mass-related constant; X, Y, and Z are Green's functions in the x, y, and z directions, respectively; $R_f$ is the retardation factor; $\eta_e$ is the effective porosity; D is the dispersion coefficient; t is the time; x is the travel distance; $u_p$ is the pore-water velocity; $\lambda$ is the decay constant; u* is the contaminant velocity; $v_d$ is the Darcy velocity; y is the off-centerline distance; $h_m$ is the mixing-zone thickness; 190 $cm^2/yr$ equals molecular diffusion; $\alpha$ is the dispersivity in the x, y, or z direction; A is the area of the waste site; L is the length of the waste site in the groundwater flow direction; W is the width of the waste site perpendicular to the groundwater flow direction; $C(\tau)$ is the concentration at the receptor at time $\tau$; and $\tau$ is the limit of the integral representing the current time associated with the concentration.

By inspection, Equations (8) and (9) illustrate that the length and width of the waste site are an integral part in determining the concentration at the receptor; as such, area may become an important variable for near-field problems. Spatially, far-field problems are those where an area source looks like a point source. Temporally, the convolution integral of far-field problems simplifies to the instantaneous concentration solution as presented in Equation (6). The MRA analysis of the aggregated waste sites assumed that the areas were all 929 $m^2$ (10,000 $ft^2$; 100 ft by 100 ft). To demonstrate the linearity of the system and to show that the assessment at Hanford is spatially far-field, an illustrative waste site was analyzed in the 200 East Area. A unit release rate was assumed for the waste site. The effect of waste site size on the downgradient concentration was analyzed at four different distances (Figure B3-1). Four different areas were assessed: point source, 10 m by 10 m (33 ft by 33 ft), 100 m by 100 m (328 ft by 328 ft), and 1,000 m by 1,000 m (3,280 ft by 3,280 ft). Four different distances were assessed: 10 m (33 ft); 100 m (328 ft); 1,000 m (3,280 ft); and 10,000 m (32,800 ft). As Figure B3-1 illustrates, all of the areas produce the same concentration as the point-source solution at a distance of 1 km (0.6 mi) or more from the source, clearly indicating spatially far-field conditions.

*Figure B3-1. Peak Concentrations as a Function of Waste Site Area and Downgradient Distance.*



Because spatially far-field conditions have been demonstrated for grid cells at least 1 km (0.6 mi) from the cells containing the aggregated waste sites, the mass (inventory) or activity at the source represents the only source-term parameter that directly affects the downgradient receptor concentrations, as illustrated by Equation (5). Because mass or activity is linear with respect to receptor concentration, the UTA is based on the unit mass of 1 kg (2.2 lb) for chemicals and the unit activity of 1 Ci for radionuclides.

### *B3.1.2 Pathline Analysis*

Flow paths were calculated based on December 1992 flow conditions (the most current represented by the model) (Figure B3-2). It was assumed that those flow conditions remain constant for the duration of the particle tracking. Particle paths were started at elements that contain cells representing the waste sites (Figure B3-3) and tracked until they reached a model boundary. Figure B3-4 shows the location of the cells representing waste sites. The pathlines generated by the model are shown on Figure B3-5. These pathlines were then approximated to straight-line segments using an ARC/INFO function that weeds coordinates in a line by finding the trend of the line and eliminating vertices that fall within the specified tolerable distance of the trend line. The weed tolerance used was 1 km (0.6 mi), which is equal to the cell size. The resulting pathlines consist of one to five straight-line segments (Figure B3-6). The points representing the vertices of the pathlines were then used in MEPAS to describe the travel paths from waste sites.

To generate pathlines for input to MEPAS, the unconfined aquifer at the Hanford Site was simulated with the two-dimensional version of the Hanford Site groundwater model (Wurstner and Devary 1993). This model consists of the Coupled Fluid, Energy, and Solute Transport (CFEST) (Gupta et al. 1987) groundwater modeling library integrated with ARC/INFO. The model is used to support work under the Groundwater Surveillance Project at the Hanford Site and has been applied to other sites as well.

*B3.1.2.1 CFEST/GIS Link.* The commercially available geographic information system (GIS) ARC/INFO has been integrated with the CFEST groundwater modeling library (Cole et al. 1988; Gupta et al. 1987). A series of ARC/INFO macro routines and FORTRAN utility programs have been developed to create an ARC/INFO-CFEST interface. For example, an ARC/INFO macro may be used to select elements that represent starting points for particle travel analyses. A FORTRAN utility program would then generate a command file used to execute the CFEST travel path module. Another ARC/INFO macro has been written to create a triangular irregular network surface from CFEST output, from which contour maps can be generated. Additional ARC/INFO macros for grid generation and parameter assignment are being used in support of the three-dimensional model development under the Groundwater Surveillance Project.

*B3.1.2.2 Groundwater Model Description, Assumptions and Limitations.* The finite-element grid used by the Hanford Site groundwater model contains 997 nodes and 904 elements. Boundary conditions for the model consist primarily of prescribed head along the Columbia and Yakima Rivers, no-flow boundaries at the bottom of the aquifer and along basalt outcrops and subcrops, and constant flux along a portion of Rattlesnake Mountain to reflect spring discharges. A prescribed head boundary was also used at the entrance of Cold Creek Valley onto the Hanford Site. Figure B3-7 shows the finite-element grid with boundary conditions. The transmissivity distribution (Figure B3-8) and initial conditions for the groundwater model were derived from the inverse calibration performed for 1979 steady-state conditions (Jacobson and Freshley 1990). A transient simulation was run for a

*Figure B3-2. CFEST Simulated Hydraulic Head Contours for 1992 Flow Conditions.*

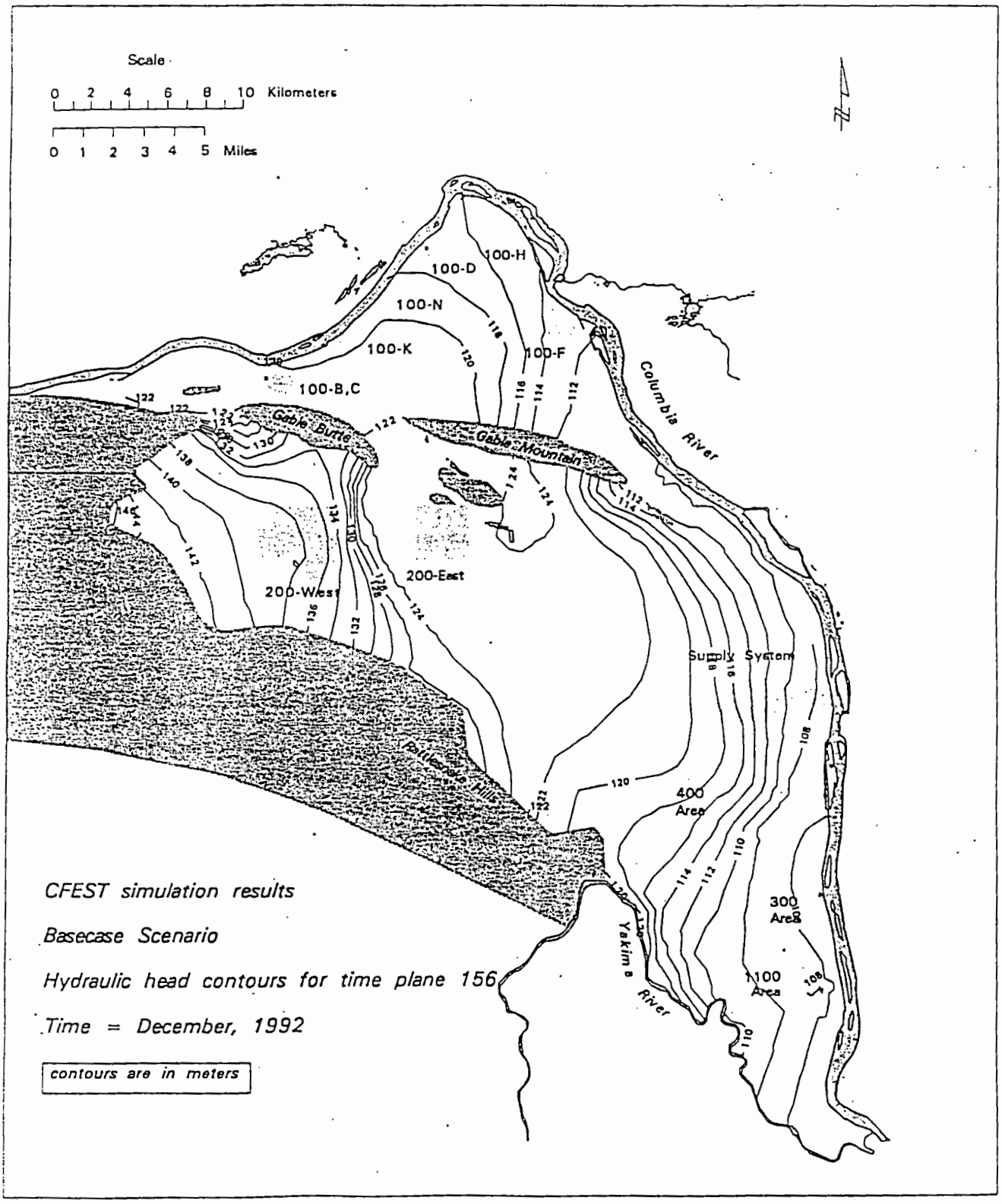


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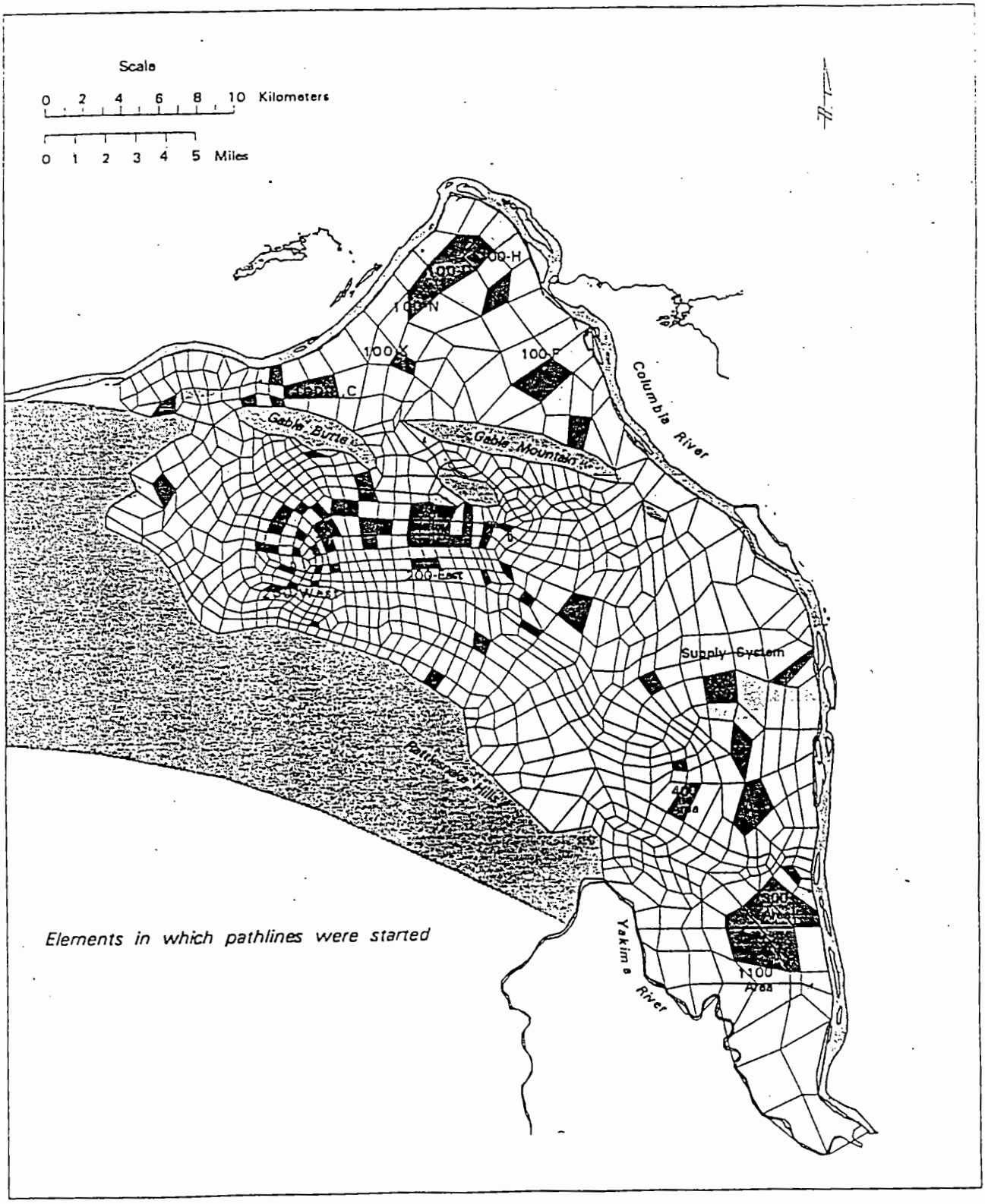
*Figure B3-3. Finite Elements Where Pathlines Started.*



## *Figure B3-4. Finite Element Grid with Waste Cell Locations.*

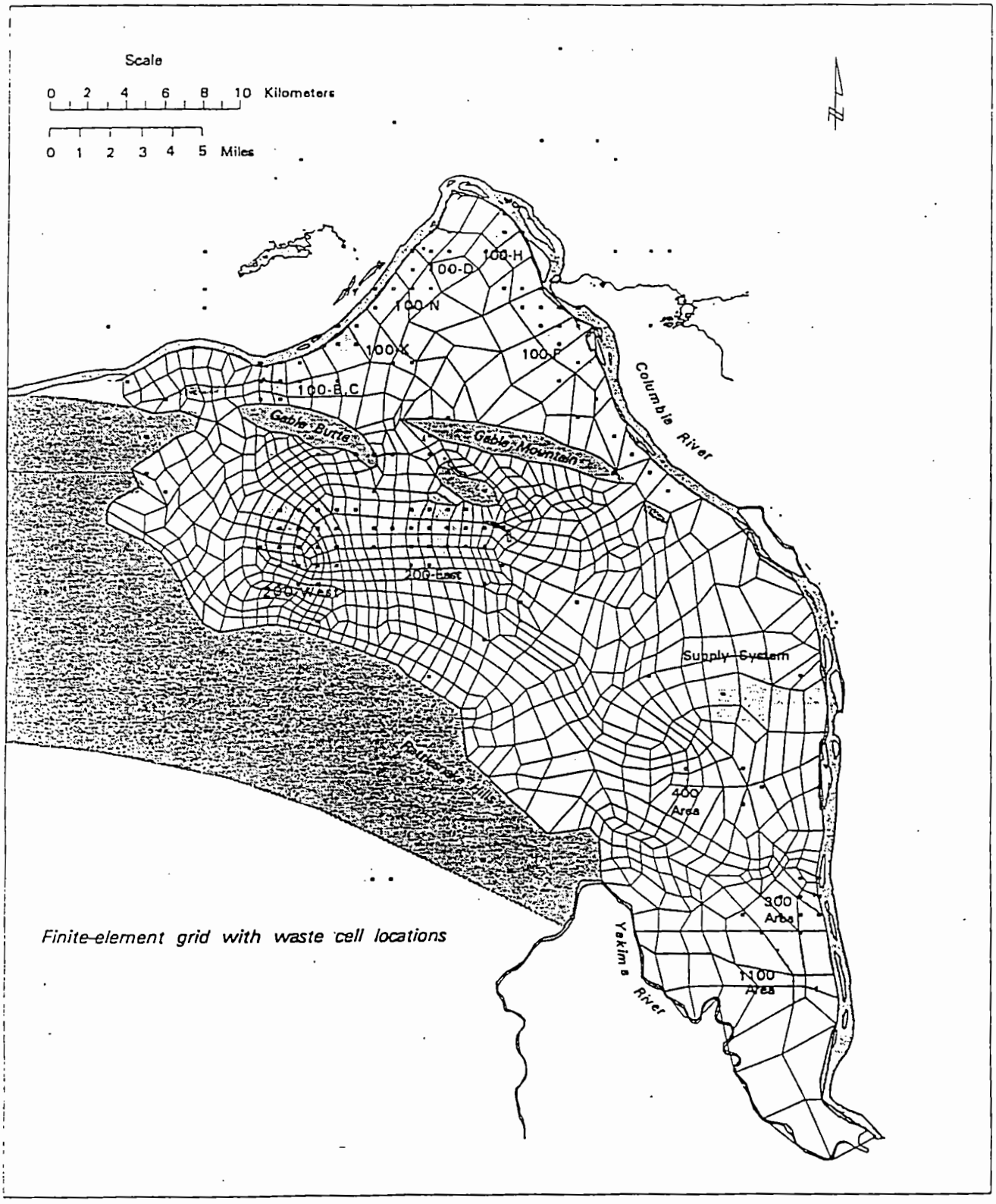


*Figure B3-5. Plume Pathlines Generated by CFEST.*

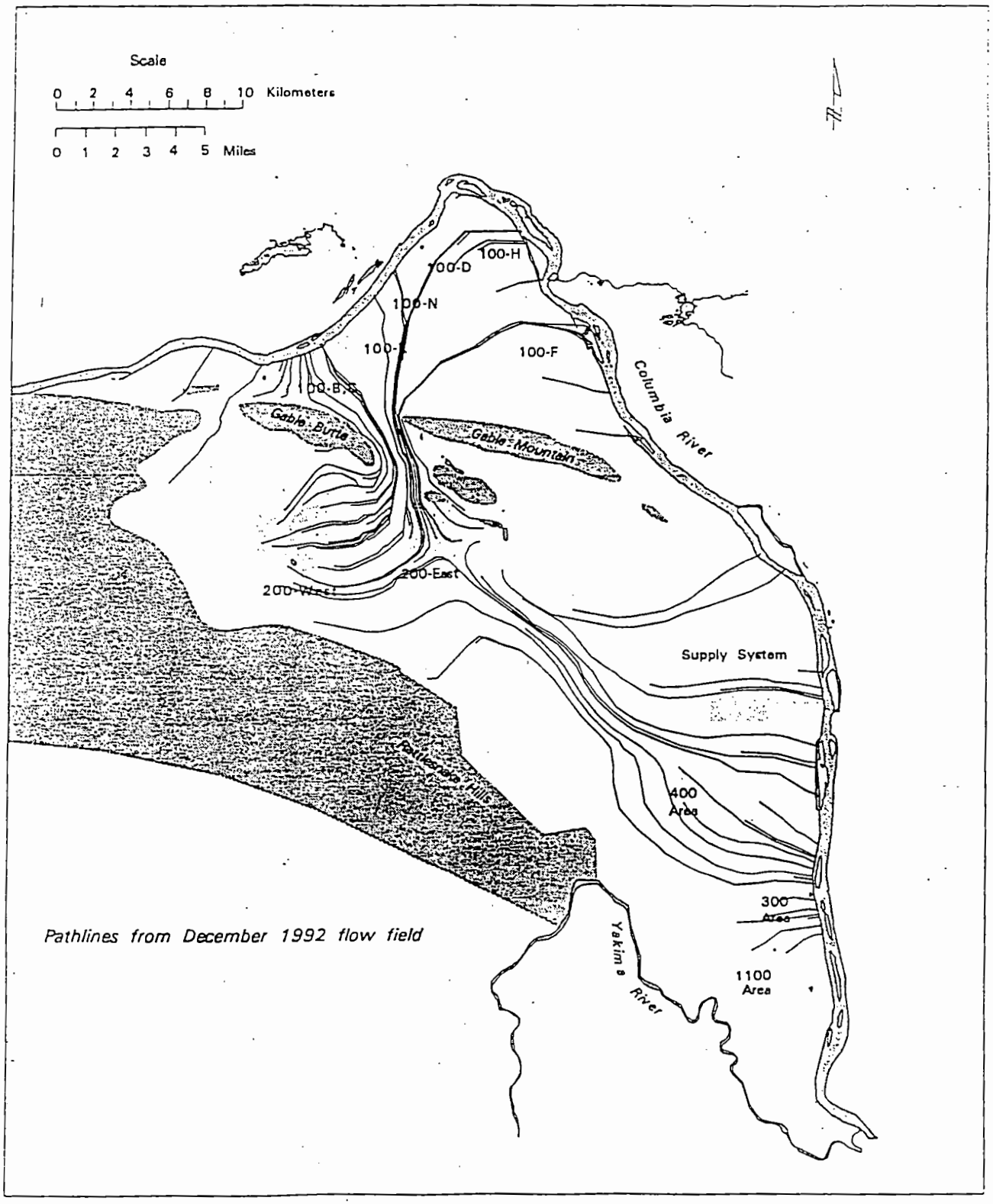


*Figure B3-6. Approximated Travel Paths for Groundwater Plumes.*

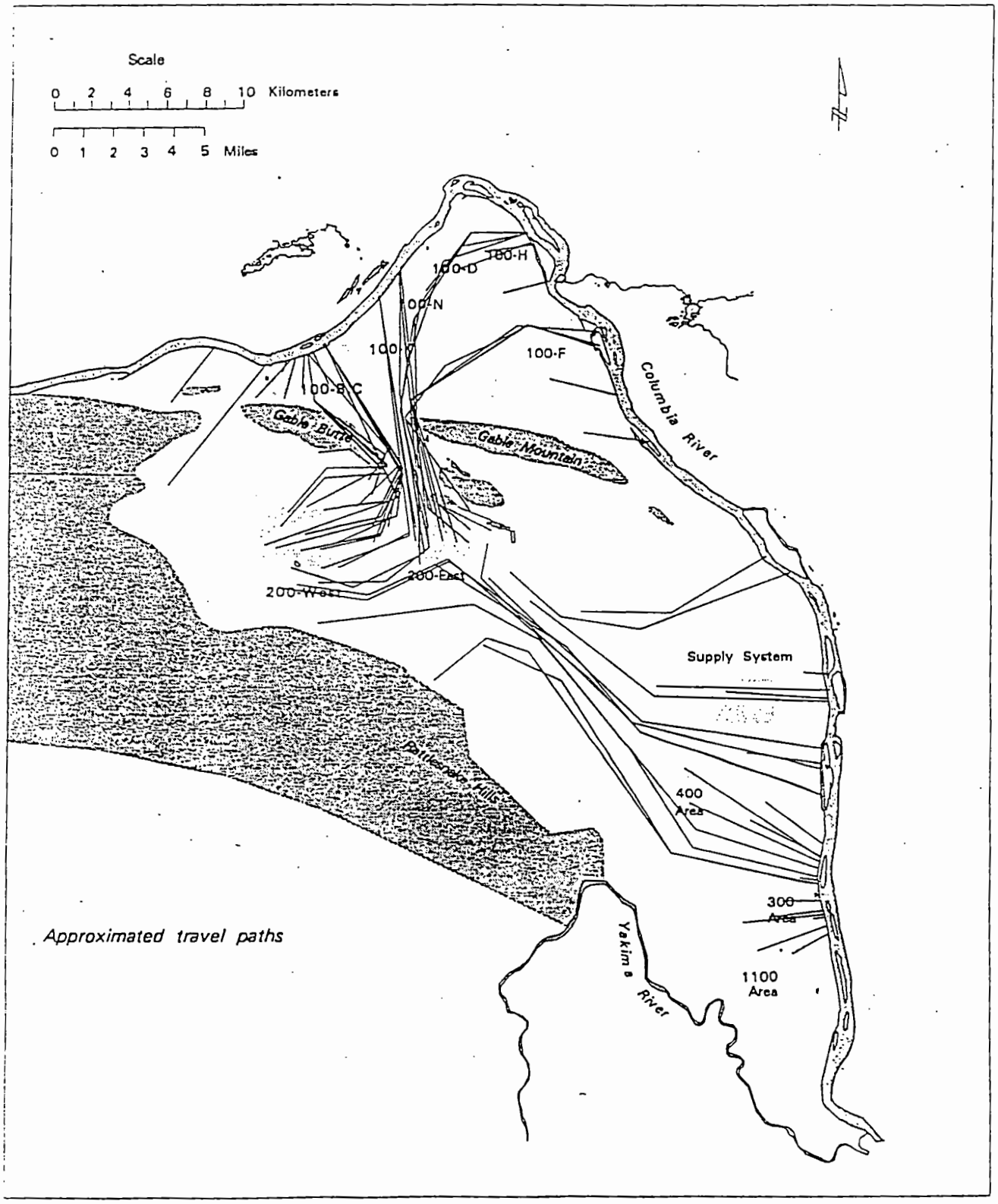


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*Figure B3-7. Finite Element Grid with Boundary Conditions.*

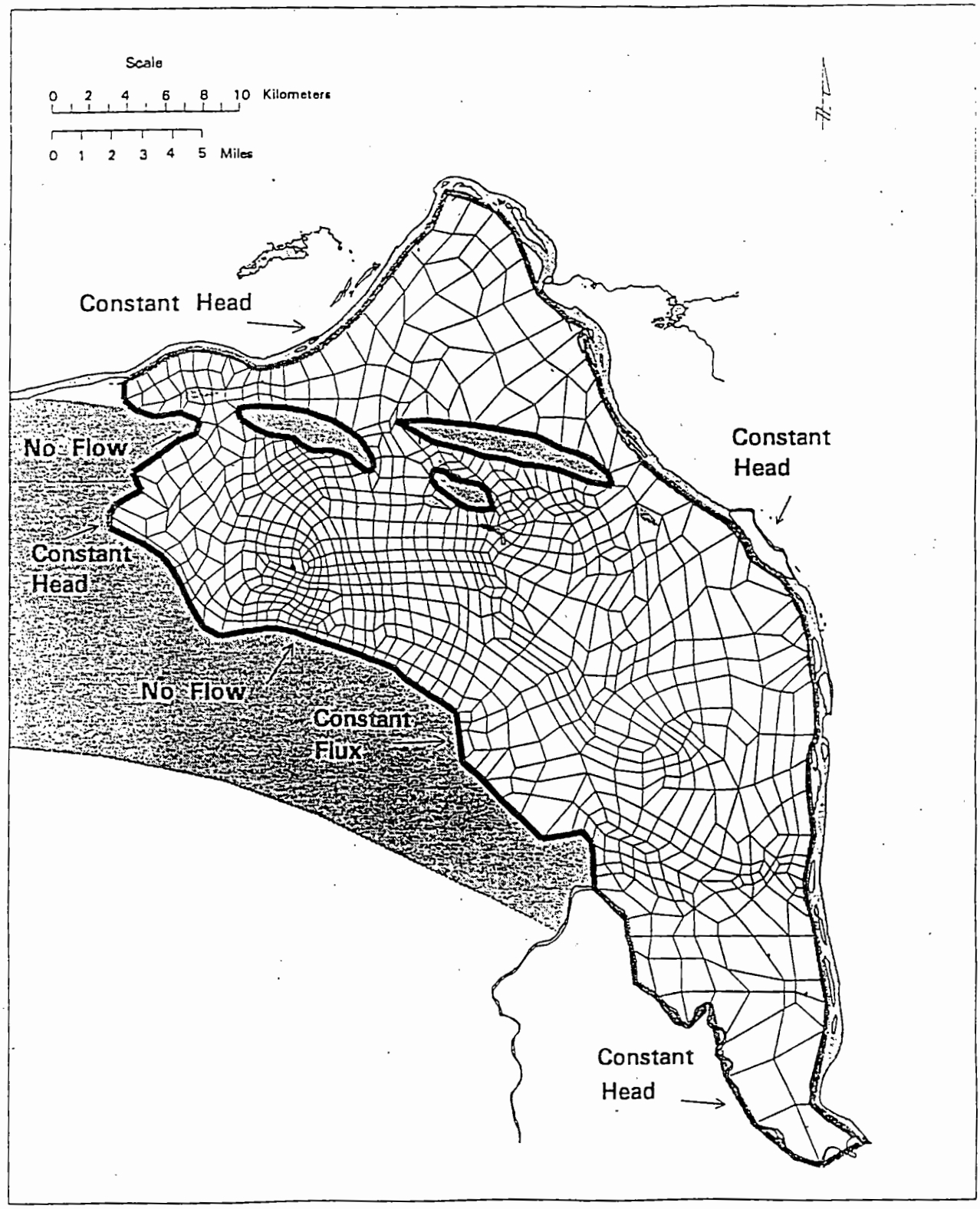
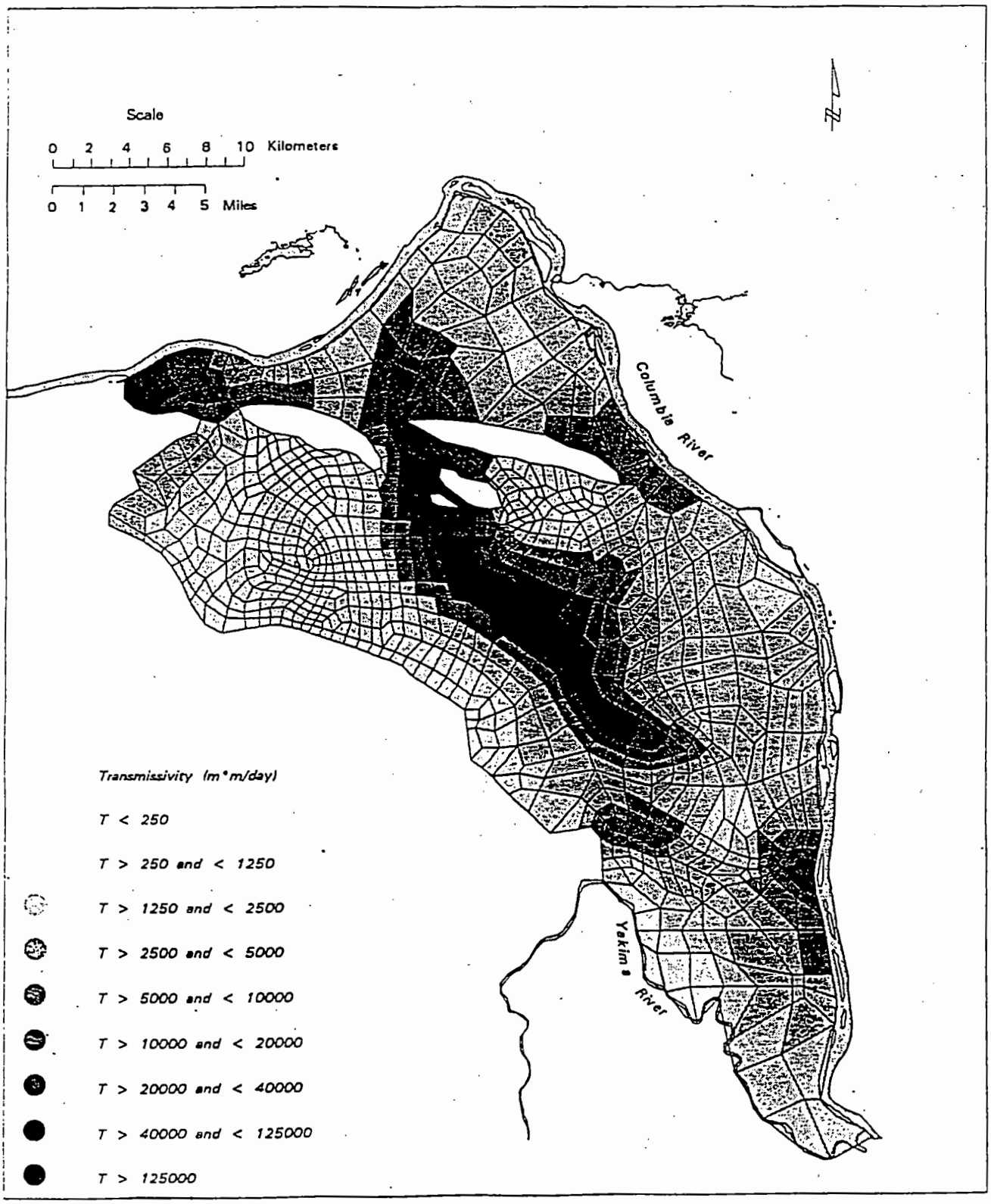


*Figure B3-8. Transmissivity Distribution for the Hanford Site.*



12-year period from 1980 to 1992 using a time step of 1 month. The monthly effluent discharges used for this simulation were based on Westinghouse Hanford Company effluent reports. The discharge estimates were revised based on input from staff members responsible for effluent monitoring (the Groundwater Surveillance Project maintains a database of these effluent discharges). There are relatively few measurements of storativity for the unconfined aquifer, so a constant value of 0.1 was assumed. No natural recharge was included in this simulation, although it is recognized to occur on the Hanford Site (Gee et al. 1992). Interconnection between the unconfined aquifer and the deeper basalt aquifers is also not accounted for in the model.

There is a certain degree of uncertainty inherent in all models that comes from the assumptions made when developing and applying a model. Many assumptions are associated with the current Hanford Site regional groundwater model that may no longer be appropriate. Since development of the conceptual model, new hydrogeologic data have been collected, new interpretations have been made, and the hydrogeologic conditions and driving forces (e.g., boundary conditions) at the Hanford Site have changed. The current model was developed based on the assumption that artificial recharge from Site operations was much greater than any natural recharge from precipitation or the basalt aquifers below the unconfined aquifer system at Hanford. In the past, it was reasonable to ignore natural recharge since the flow system was dominated by effects from artificial recharge. However, artificial recharge is decreasing at the present time and is projected to decrease even more. As the flow system approaches pre-Hanford conditions, this assumption becomes invalid and it becomes crucial to include natural recharge in the model to accurately represent the water balance and the driving forces that control water movement.

Additional sources for uncertainty include the use of a constant value for specific yield and a constant "average" head value assigned to the Columbia and Yakima rivers. In addition, the hydraulic conductivity distribution used in the model is based on an averaging of properties across Hanford and Ringold formation layers into a transmissivity value for each element. The flow system response to water being released from storage in the Hanford formation, for example, would be quite different from the response observed in the Ringold sediments because of the difference in hydraulic properties. This assumption may greatly influence the results of a transient, two-dimensional simulation. In addition, the finite-elements are large in some areas, resulting in poor resolution for the solution of groundwater flow.

### *B3.1.3 Unit Transport Analysis Using Multimedia Environment Pollutant Assessment System*

The Multimedia Environmental Pollutant Assessment System (MEPAS) (Droppo et al. 1989) was used in this EIS because it is the only multimedia computer model that includes all of the following elements. The Multimedia Environmental Pollutant Assessment System (1) addresses radioactive and hazardous chemical wastes; (2) provides user flexibility in describing the geology, hydrology, hydraulics, and meteorology at an installation by allowing the use of site-specific data; (3) performs on- and off-site calculations; (4) is largely based on the solutions to the advective-dispersive equations for solute transport; (5) includes the ability to model atmospheric dispersion over complex terrain, channeling of winds, fugitive dust emissions, wet and dry deposition, and gaseous and particulate releases; (6) addresses both active and inactive sites and releases; (7) allows for user- or code-specified time-varying (i.e., transient), source-term emission rates; and (8) addresses contaminated soils; ponded sites; liquid discharges; injection wells; and point, line, and area sources (Droppo et al. 1991).

## *B3.2 Unit Transport Application*

To assess the human health risks at Hanford, the MEPAS model was modularized to calculate spatial variations in environmental concentrations. The model was connected to the GIS to ensure that groundwater, surface water, soil, and air concentrations were supplied for every grid cell in the 80-km (50-mi) radius. The output from the application runs resulted in unit transport factors (UTF) [i.e., $C_{us}$ in Equation (1) Appendix B5], based on an assumed unit source strength [i.e., $S_u$ in Equation (1) Appendix B5] of 1 Ci for radionuclides and 1 kg (2.2 pounds) for chemicals. When multiple aggregated waste sites contributed to the same downgradient receptor cell, the concentrations were summed because the system is linear for each environmental medium.

The first step in computing the UTFs is to create a data set that describes the unit release from the source, the physical/chemical characteristics of the contaminants of interest, and the environmental conditions for each medium that contaminants migrate through. Parameter files were created in MEPAS for each contaminant, aggregated waste site, and environmental setting; these parameter files are a record of all data utilized for model runs. The MEPAS parameter files are automatically created when MEPAS (version 3.0g) is utilized. These data sets represent the overall Base Data Set for the Hanford Site. Figure B3-9 illustrates the process of building the Base Data Set; demonstrating how the environmental setting, contaminant library, and source-term data feed into the MEPAS model; and how the data sets are created for each of the five environmental settings.

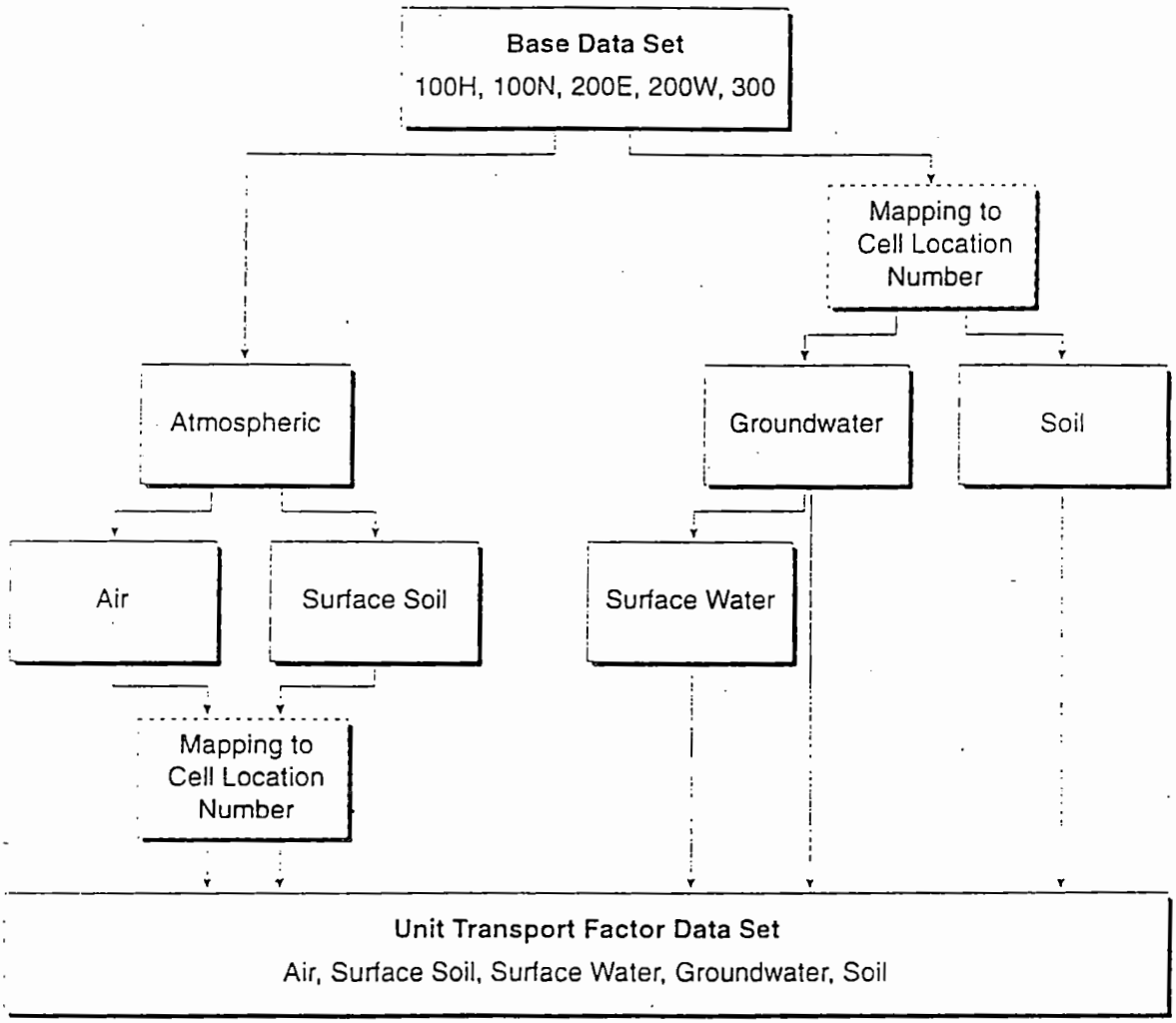
Once the Base Data Set is created, two different computational options are available, depending on the release mechanism and the environmental medium to which the contaminant is being released: (1) atmospheric releases due to volatilization or resuspension of contaminated soils, or (2) subsurface (vadose or saturated zone) or soil releases due to infiltration or leaching. Figure B3-9 includes the two computational options associated with the UTA.

### *B3.2.1 Atmospheric Option*

When the atmospheric option is selected, air and soil concentrations are calculated for locations within an 80-km (50-mi) radius for 16 different directional sectors (i.e., N, NNE, NE, NEE, E, SEE, SE, SSE, S, SSW, SW, SWW, W, NWW, NW, and NNW) and 12 different radii from the center of the aggregated waste site; therefore, 165 sectors are populated with air and soil concentrations from the atmospheric modeling exercise. Seven wind stability types are also accounted for: three particulates, a depositing gas with surface residue, a nondepositing gas, a gas emission particle deposition, and a depositing gas with no surface residue. The polar-coordinate system describing the radial distribution of atmospheric contamination is then overlaid on the GIS cartesian system, and the sector concentrations are automatically mapped onto the corresponding and appropriate grid-cell locations. As a final result, unit concentrations are identified in each cell for air and surface soil. The mass at the source is depleted over time, and this depletion is accounted for at the source. The different locations associated with the aggregated wastes sites are also automatically accounted for when mapping the polar-coordinate results of each waste site onto the GIS cartesian-coordinate system.

For each atmospheric run, environmental setting, and contaminant, the following data were used to calculate volatilization and resuspension, starting at time zero and continuing until year 10,000 or until the contaminant inventory was zero: contaminant name, Chemical Abstract Service

*Figure B3-9. Flow Diagram Illustrating the Utilization of the Base Data Set and Implementation of the Unit Transport Analysis.*



identification, half-life, decay products for radionuclides, inventories/activities, toxicity type (where appropriate), stability class, volatilization rate, and suspension-emission rate. For year zero to 100, the time step was 1 year; for year 100 to 1000, the time step was 10 years; for year 1000 to 10,000, the time step was 100 years. For radionuclides, inventory decay was accounted for using Bateman's equation (Droppo et al. 1989).

Figures B3-10, B3-11, and B3-12 illustrate the output of the atmospheric assessment prior to converting the polar-coordinate results to the GIS cartesian-coordinate system. Each figure illustrates the spatial distribution of the air concentration for 4-methyl-2-pentanone at various resolutions for time 140 years. The resolution increases from Figure B3-10 to B3-12. The radius of the outer circle on Figure B3-10 is approximately 75 km (46 mi); the outer radius on Figure B3-11 is approximately 10 km (6 mi); the outer radius on Figure B3-12 is approximately 0.6 km (0.4 mi). Each figure is coded to denote concentration levels as a function of the highest concentration presented. A bar in the upper left-hand corner of each figure shows the codes. The uppermost and darkest shading in the coding bar represents the highest unit concentration. Each successive shading decreases in concentration by a factor of two, as related to the shading above it.

### *B3.2.2 Subsurface/Soil Option*

When the subsurface/soil option is selected, groundwater, soil, and surface water concentrations are calculated for every 1-km$^2$ (0.4-mi$^2$) grid-cell location within the Hanford Site and at locations along the Columbia River within an 80-km (50-mi) radius. Each aggregated waste site is mapped to a grid-cell location. The leaching of the contaminants from contaminated soils through the vadose zone and groundwater is then modeled to various locations surrounding the waste site. Transport to the Columbia River (i.e., surface water) is also modeled. To conserve mass, the depletion of mass/activity in the contaminated soil from which the constituents originated is accounted for over time.

Unlike the atmospheric modeling, where the shape of the flow paths was identical for each aggregated waste site per environmental setting per constituent, the subsurface modeling (and in particular the groundwater modeling) had different flow paths for each aggregated waste site. Figure B3-6 illustrates the flow paths from the 52 grid cells that contain aggregated waste sites. Unlike other semi-analytical groundwater models that address only unidirectional flow, MEPAS 3.0 g approximates curvilinear flow, as illustrated by the pathlines on Figure B3-5. As such, each cell containing an aggregated waste site had to be modeled separately for each contaminant to each downgradient grid cell identified. Each modeled plume was then automatically overlaid on the GIS grid.

There are over 100 contaminants, 52 grid-cell locations containing aggregated waste sites, and 5 modeling time periods (i.e., years 40, 100, 140, 1000, and 10,000). These numbers represent the minimum number of runs to produce groundwater or surface water concentrations in one downgradient cell. Figure 3-13 illustrates the spatial distribution of one chemical (nitrite) from one aggregated waste site (200 East Area) for one time (year 140). As with Figures B3-10, B3-11, and B3-12, Figure B3-13 is coded to denote concentration levels as a function of the highest concentration presented. Each successive shading in the bar decreases by a factor of 10, as related to the color

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*Figure B3-10. Atmospheric Results for an 80-km Radius from an Aggregated Waste Site in the 200 East Area Illustrating the Spatial Distribution of the 4-Methyl-2-Pentanone (radius of the largest circle is 75 km).*

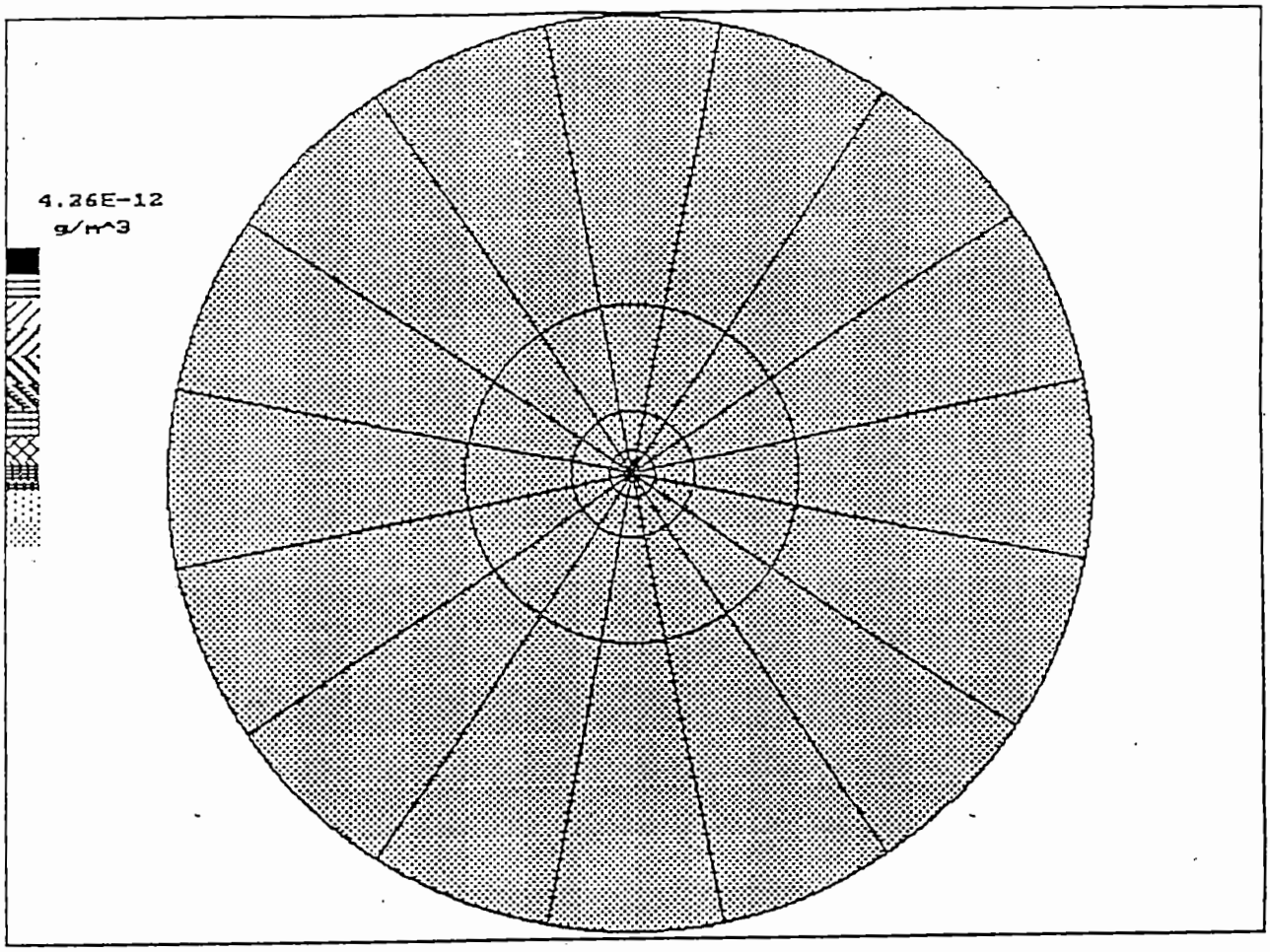



Figure B3-10. Atmospheric results for an 80-km radius from an aggregated waste site in the 200-East Area illustrating the spatial distribution of the 4-methyl-2-pentanone (radius of the largest circle is 75 km).

*Figure B3-11. Atmospheric Results for the 12-km Radius from an Aggregated Waste Site in the 200 East Area Illustrating the Spatial Distribution of the 4-Methyl-2-Pentanone (radius of the largest circle is 10.2 km).*

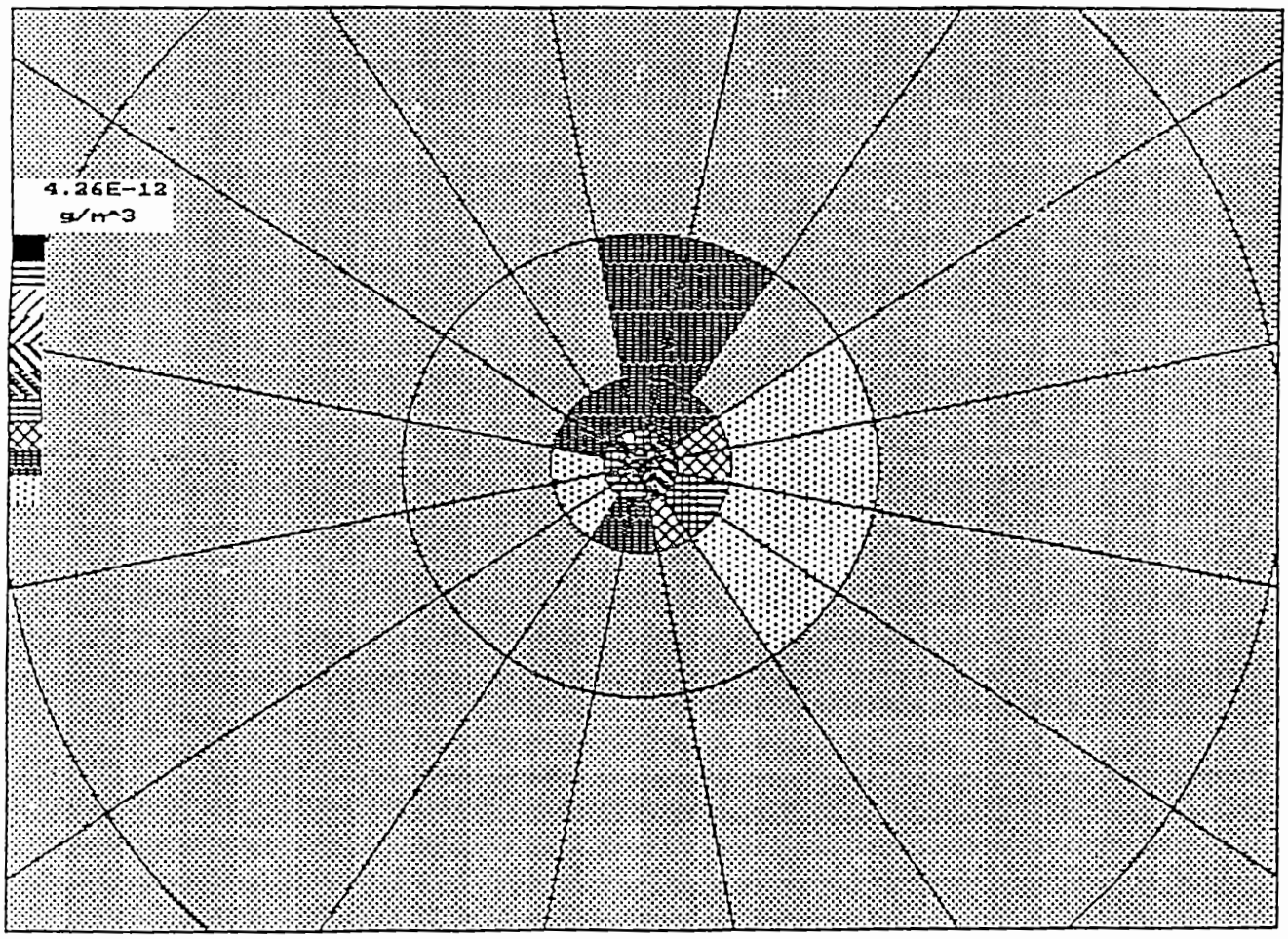


*Figure B3-12. Atmospheric Results for the 12-km Radius from an Aggregated Waste Site in the 200 East Area Illustrating the Spatial Distribution of the 4-Methyl-2-Pentanone (radius of the largest circle is 0.6 km).*

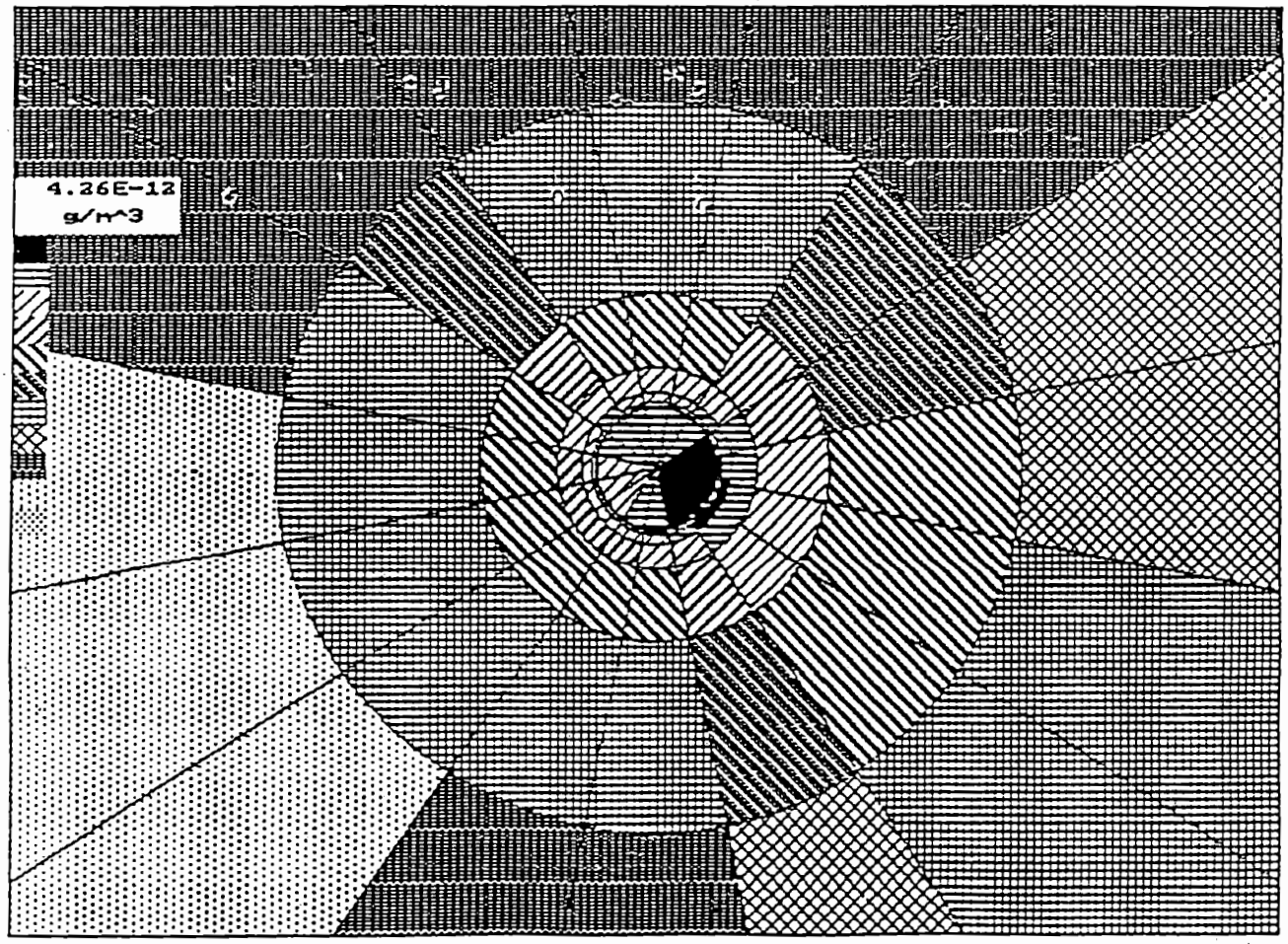
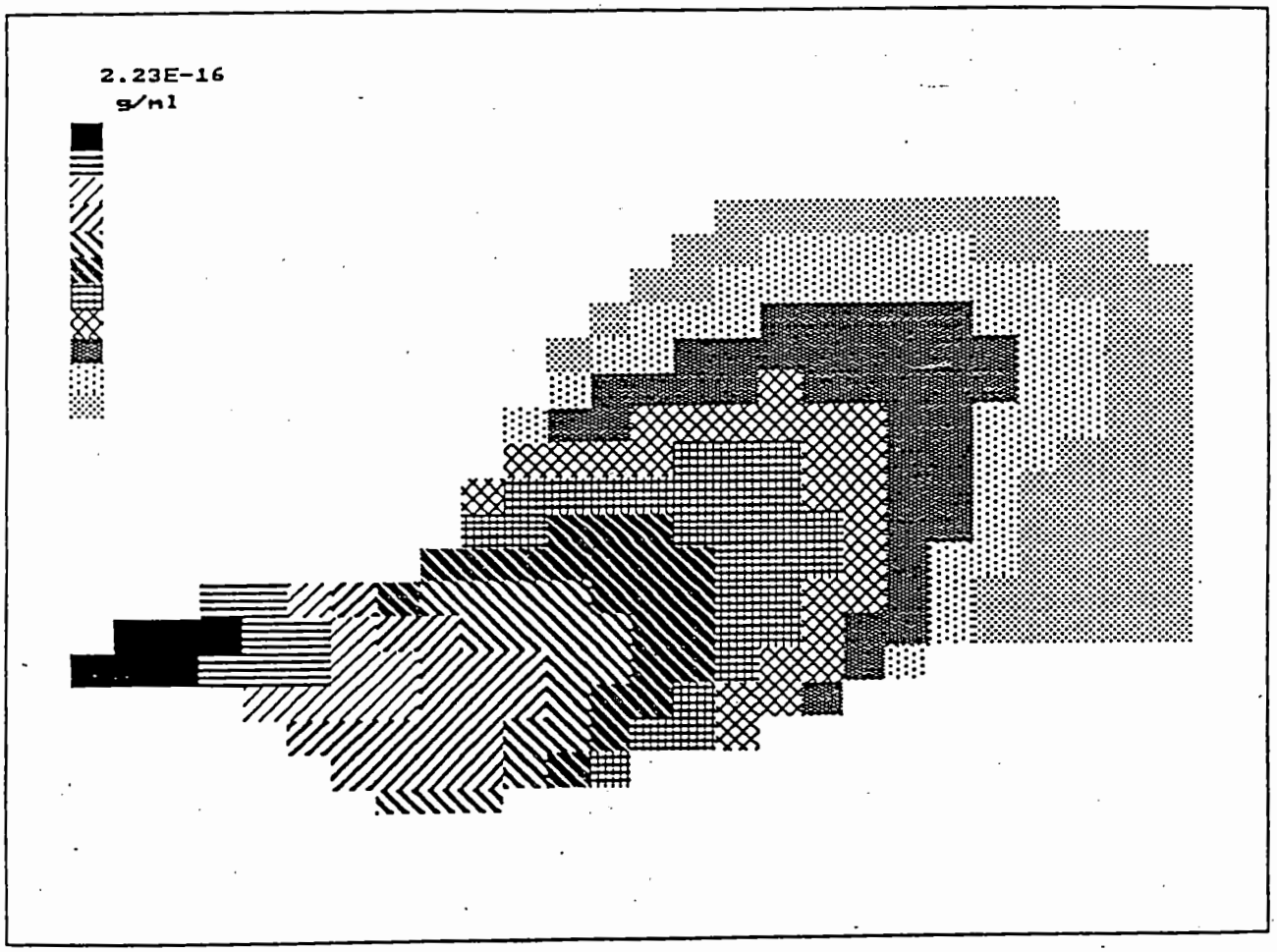


*Figure B3-13. Two-dimensional Spatial Distribution of Nitrite from an Aggregated Waste Site in the 200 Area after 140 Years.*



above it. Similar plumes were generated for every (1) contaminant, (2) aggregated waste site, (3) time period, and (4) source-term type (i.e., ponded liquid waste and contaminated soils). When multiple plumes from different sources intersect the same downgradient grid-cell location, the unit concentrations are summed to produce one (i.e., combined) groundwater concentration for that grid cell.

### *B3.2.3 Contaminant Arrival Time at the Columbia River*

Although spatially distributed risks associated with six different time periods were analyzed, that does not tell the analyst whether the bulk of the contaminant mass has already passed through the environmental system, i.e., passed through the 80-km (50-mi) radius, or whether the main body of contamination is still in the system. Two contaminant characteristics greatly influence the mobility and availability of the constituents in the environment: $K_d$ and contaminant half-life. The distribution coefficient significantly influences the mobility of the contaminant in the subsurface system. The effects of $K_d$ are mathematically described by Equations (13), (14), and (16). The higher the $K_d$, the longer the travel times. The half-life is also important. If the half-life is small, then the contaminant can decay away prior to reaching the receptor. As such, there is an important relationship between travel time (i.e., $K_d$) and half-life. This travel time is a function of the contaminant's $K_d$ and half-life, characteristics of the environmental setting, and location of the environmental setting as it relates to the Columbia River. Once the contaminant enters the Columbia River, it would move quickly out of the 80-km (50-mi) radius. Therefore, it would be very valuable to know when the peak concentration reaches the Columbia River.

This analysis was performed to 10,000 years. All five environmental settings were analyzed (i.e., 200 West, 200 East, 100-N, 100-H, and 300 Areas); the results of the assessment are presented in Tables B3-1 through B3-5. These tables present the travel time of the peak concentration from the source (in the vadose zone) to the Columbia River as a function of $K_d$ and half-life. The average flow distances from the 200 West, 200 East, 100-N, 100-H, and 300 Areas to the Columbia River were assumed as 21 km (13 mi), 18 km (11 mi), 1.6 km (1.0 mi), 1.1 km (0.7 mi), and 2.2 km (1.4 mi), respectively.

## *B3.3 Environmental Setting Assumptions*

The environmental setting information consists of the site-specific data required to model (using MEPAS) the atmospheric, groundwater, and surface water transport of contaminants within and near the boundaries of the Hanford Site. The environmental settings data describe the climate, atmospheric dispersion, hydrogeology, and surface water characteristics of the Site (Schramke et al. 1994). The number of environmental settings developed for the Hanford Site was the fewest that could provide accurate results when used in the risk assessment modeling. To capture the regional heterogeneity associated with the Hanford Site, Schramke et al. (1994) have divided Hanford into one climatic setting, two atmospheric dispersion settings, seven major hydrogeologic settings, and one river setting (i.e., Columbia River).

*Table B3-1. Distribution Coefficient Versus Half-life Versus Arrival Time for the 200 West Area.*

| $K_d$ per Layer (in mL/g) | Contaminant Half-Life (yr) | | |
|---|---|---|---|
| | 0.1 | 100 | 10,000 |
| 0-0-0-0-0-0* | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 776. | The peak arrives at year 825. |
| 0-1-0-1-0-0 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 3216. | The peak arrives at year 2851. |
| 2-2-2-2-2-2 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 9022. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 2-4-2-4-2-2 | The contaminants never reach the Columbia River due to a short half-life. | The contaminants never reach the Columbia River due to a short half-life. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 5-10-5-10-5-5 | The contaminants never reach the Columbia River due to a short half-life. | The contaminants never reach the Columbia River due to a short half-life. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 15-30-15-30-15-15 | The contaminants never reach the Columbia River due to a short half-life. | The contaminants never reach the Columbia River due to a short half-life. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |

*The 200 West Area environmental setting contains five vadose zones and one saturated zone. The first five numbers in the series represent the assigned $K_d$ values for each successive vadose zone layer; the last value represents the $K_d$ for the saturated zone.

*Table B3-2. Distribution Coefficient Versus Half-life Versus Arrival Time for the 200 East Area.*

| $K_d$ per Layer (in mL/g) | Contaminant Half-Life (yr) | | |
|---|---|---|---|
| | 0.1 | 100 | 10,000 |
| 0-0-0-0* | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 682. | The peak arrives at year 728. |
| 1-1-1-1 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 5308. | The peak arrives at year 7292. |
| 5-5-5-5 | The contaminants never reach the Columbia River due to a short half-life. | The contaminants never reach the Columbia River due to a short half-life. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 15-15-15-15 | The contaminants never reach the Columbia River due to a short half-life. | The contaminants never reach the Columbia River due to a short half-life. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |

*The 200 East Area environmental setting contains three vadose zones and one saturated zone. The first three numbers in the series represent the assigned $K_d$ values for each successive vadose zone layer; the last value represents the $K_d$ for the saturated zone.

*Table B3-3. Distribution Coefficient Versus Half-life Versus Arrival Time for the 100-N Area.*

| $K_d$ per Layer (in mL/g) | Contaminant Half-Life (yr) | | |
|---|---|---|---|
| | 0.1 | 100 | 10,000 |
| 0-0-0* | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 92. | The peak arrives at year 95. |
| 2.5-5-2.5 | The contaminants never reach the Columbia River due to a short half-life. | This case was not modeled. | The peak arrives at year 6000. |
| 5-10-5 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 4356. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 10-20-10 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 6894. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 15-30-15 | The contaminants never reach the Columbia River due to a short half-life. | The contaminants never reach the Columbia River due to a short half-life. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |

*The 100-N Area environmental setting contains two vadose zones and one saturated zone. The first two numbers in the series represent the assigned $K_d$ values for each successive vadose zone layer; the last value represents the $K_d$ for the saturated zone.

*Table B3-4. Distribution Coefficient Versus Half-life Versus Arrival Time for the 100-H Area.*

| $K_d$ per Layer (in mL/g) | Contaminant Half-Life (yr) | | |
|---|---|---|---|
| | 0.1 | 100 | 10,000 |
| 0-0* | The contaminants never reach the Columbia River due to a short half-life. | The contaminants have already reached the Columbia River. | The contaminants have already reached the Columbia River. |
| 5-5 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 1550. | The peak arrives at year 3250. |
| 15-15 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 2827. | The peak arrives at year 9000. |

*The 100-N Area environmental setting contains one vadose zone and one saturated zone. The first number in the series represents the assigned $K_d$ values for the vadose zone layer; the last value represents the $K_d$ for the saturated zone.

*Table B3-5. Distribution Coefficient Versus Half-life Versus Arrival Time for the 300 Area.*

| $K_d$ per Layer (in mL/g) | Contaminant Half-Life (yr) | | |
|---|---|---|---|
| | 0.1 | 100 | 10,000 |
| 0-0* | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 43. | The peak arrives at year 43. |
| 5-5 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 2412. | The peak arrives at year 5251. |
| 10-10 | The contaminants never reach the Columbia River due to a short half-life. | This case was not modeled. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |
| 15-15 | The contaminants never reach the Columbia River due to a short half-life. | The peak arrives at year 4470. | The contaminants are still moving toward the Columbia River and peak would reach the river after 10,000 years. |

*The 300 Area environmental setting contains one vadose zone and one saturated zone. The first number in the series represents the assigned $K_d$ value for the vadose zone layer; the last value represents the $K_d$ for the saturated zone.

Criteria used to establish the hydrogeological settings included the characteristics of the Hanford formation, the location of the water table (in the Ringold Formation or the Hanford formation), and the number of distinct hydrogeological units that had been described for various locations on the Hanford Site. For each of these settings, a single set of hydrogeological input parameters was selected. The hydrogeological input parameters are representative of the specific areas where waste sites occur within the settings.

This section discusses the following environmental settings: climatologic and atmospheric, hydrogeologic, and surface water. Because contaminant mobility is a function of the hydrogeologic environmental setting and the distribution coefficient assigned to each contaminant, a discussion is presented on the distribution coefficients that were assigned to certain contaminants of concern.

### *B3.3.1 Climatologic and Atmospheric Settings*[1]

The Hanford Site has a mid-latitude (≈46°), semiarid climate. The climate is strongly influenced by the Cascade Range, which limits much of the maritime influence of the Pacific Ocean, resulting in a much lower rate of precipitation than would normally occur if the mountains were not present. The Rocky Mountains (far to the north and east) also influence the climate of the region by protecting it from the more severe winter storms and extreme temperature swings associated with modified arctic air masses that move southward from Canada.

Continuous hourly observations have been conducted at the Hanford Meteorology Station since 1944. Currently, 28 automated meteorological monitoring stations operate within and near the Hanford Site. Average annual precipitation at Hanford is 16 cm (6.3 in.), with more than 40 percent of the annual precipitation occurring between November and January. The average annual snowfall is 33 cm (13 in.). The average annual temperature at Hanford is 12°C (53°F) with a daily average high temperature of 3°C (37°F) in January and 33°C (92°F) in July. Daily average low temperatures are -6°C (22°F) in January and 16°C (61°F) in July.

Winds at Hanford are strongly influenced by their proximity to local terrain features; as such, two atmospheric setting have been defined: 200 Areas and 300/400 areas. Because of the influence of Rattlesnake Hills, the prevailing wind direction in the 200 Areas is from the northwest with an average velocity of 3.4 m/s (7.7 mi/hr). In the 300 and 400 areas, the prevailing wind direction is from the southwest. For more information on climatologic and atmospheric conditions at Hanford (e.g., wind rose, joint frequency distributions), refer to Schramke et al. (1994) and Stone et al. (1983).

### *B3.3.2 Hydrogeologic Environmental Settings*[2]

The Hanford Site is located within the Pasco Basin, a structural depression on the Columbia Plateau. The geology of the area is described in detail in Schramke et al. (1994), Thorne and Chamness (1992), and Tallman et al. (1979). The principal surface water features at Hanford are the Columbia River, north and east, and the Yakima River, south of the Site, respectively. Small amounts of local surface recharge occur from precipitation and through small ephemeral streams to

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[1]Paraphrased from Schramke et al. 1994 and Stone et al. 1993.

[2]This section has been paraphrased from Schramke et al. 1994.

the west of the area. Although infiltration amounts have ranged up to 10 cm/yr (3.9 in/yr) (Whelan et al. 1989), 1 to 2 cm/yr is not unrealistic (depending on weather conditions), and most precipitation is returned to the atmosphere through evapotranspiration (Bjornstad 1990). Local recharge makes its way through the vadose zone to the water table. The unconfined aquifer at Hanford occurs primarily within the Hanford formation and Ringold Formation. Prior to operational disposal of waste waters, the unconfined aquifer was almost entirely in the less transmissive Ringold Formation; however, wastewater disposal in the 200 Areas has created a groundwater mound, and the water is now moving through the more transmissive Hanford formation (Thorne and Newcomer 1992). Because the wastewater disposal facilities have shut down, the water table is declining and estimates of groundwater travel times and directions based on 1992 water surface elevations are expected to be conservative. Figure B3-2 presents the spatial distribution of hydraulic head contours in the aquifer beneath the Hanford Site during December 1992. Figure B3-5 presents the pathlines for the aquifer conditions during December 1992.

Distribution coefficients were obtained from Hanford documents. When the coefficients were not derived from previous site modeling, they were tested by analytical simulation of relatively simple and well defined Hanford plumes. If the tested distribution coefficients from Hanford documents were not consistent with analytical modeling results, a compatible distribution coefficient was selected. The distribution coefficients selected for this EIS modeling are presented in Table B3-6.

*Table B3-6. Estimated Distribution Coefficients for Groundwater Contaminant Transport Modeling.*

| Contaminant | Distribution coefficient (mL/g) |
|---|---|
| Americium-241 | 6 |
| Antimony-125 | 0 |
| Cesium-137 | 51 |
| Cobalt-60 | 0 |
| Iodine-129 | 0 |
| Plutonium | 20 |
| Strontium-90 | 24.5 |
| Technetium-99 | 0 |
| Tritium | 0 |
| Uranium-238 | 2 |
| Arsenic | 0 |
| Chromium | 0 |
| Fluoride | 0 |
| Nitrate | 0 |
| Carbon Tetrachloride | 0.04 |
| Chloroform | 0.02 |
| Cyanide | 0.1 |
| Cis-dichloroethylene | 0.44 |
| Trichloroethylene | 0.44 |

The seven hydrogeologic settings are illustrated on Figure B3-14. Each is comprised of an overburden soil layer (i.e., top-soil layer), a vadose zone, and a saturated zone. Each setting has been divided into several vadose zone layers. The 300, 200 West, 200 East, 100-H, and 100-N Areas contain one, five, three, one, and two vadose zone layers, respectively. Figure B3-15 presents the hydrostratigraphy of the seven settings. Of the seven settings, only five contain significant past-practice waste sites (i.e., 200 East, 200 West, 100-N, 100-H, and 300 Areas); these five are associated with the UTA. Criteria used to establish the settings included the hydrogeologic characteristics of the Hanford formation, location of the water table, and number of hydrogeologic units that have been described for various locations beneath the Hanford Site. For each of these settings, a single set of hydrogeologic input parameters was selected. The hydrogeologic input parameters are representative of the specific areas where the waste sites occur within the settings.

A summation of the characteristics of each environmental setting is presented in Tables B3-7 through B3-21. They show the infiltration rates, vadose zone parameters, and saturated zone parameters.

### *B3.3.3 Surface Water Environmental Setting*

The Columbia River has also been divided into three reaches within the 80-km (50-mi) radius from the center of the Site. Each reach corresponds to a location where a major tributary enters the river. The first reach corresponds to the free-flowing Hanford Reach at median flow; its median discharge is 2,905 cms (102,600 cfs), based on 27 years of records (Whelan et al. 1987a). The second reach corresponds to the confluence of the Yakima and Columbia Rivers. The mean discharge of the Yakima River is 104 cms (3,673 cfs), based on 57 years of records (DOE 1994), while the combined discharge is 3,009 cms (106,270 cfs) (Whelan et al. 1987a; DOE 1994; Evergreen Publishing 1992). The third reach corresponds to the confluence of the Snake and Columbia Rivers. The mean discharge of the Snake River is 1,530 cms (54,100 cfs), based on 35 years of records (Ruppert[3]), while the combined discharge is 4,541 cms (160,400 cfs) (Whelan et al. 1987a; Evergreen Publishing 1992; Ruppert[3]). A summary of the Columbia River discharges, widths, depths, and flow velocities for each of the three reaches is reported in Table B3-22.

### *B3.3.4 Soil*

The hydrogeological setting information represents the partially saturated and saturated zones. For partially saturated zones, this information includes layer thickness, soil type (i.e., percent sand, silt, and clay), bulk density, total porosity, field capacity, saturated hydraulic conductivity, and longitudinal dispersivity. For saturated zones, this information includes layer thickness, soil type, and bulk density total.

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[3]Ruppert, G., 1994. Telephone conversation with Mr. Greg Ruppert on April 27, 1994, based on U.S. Geological Survey water-discharge records.

*Figure B3-14. Hanford Site Environmental Settings.*

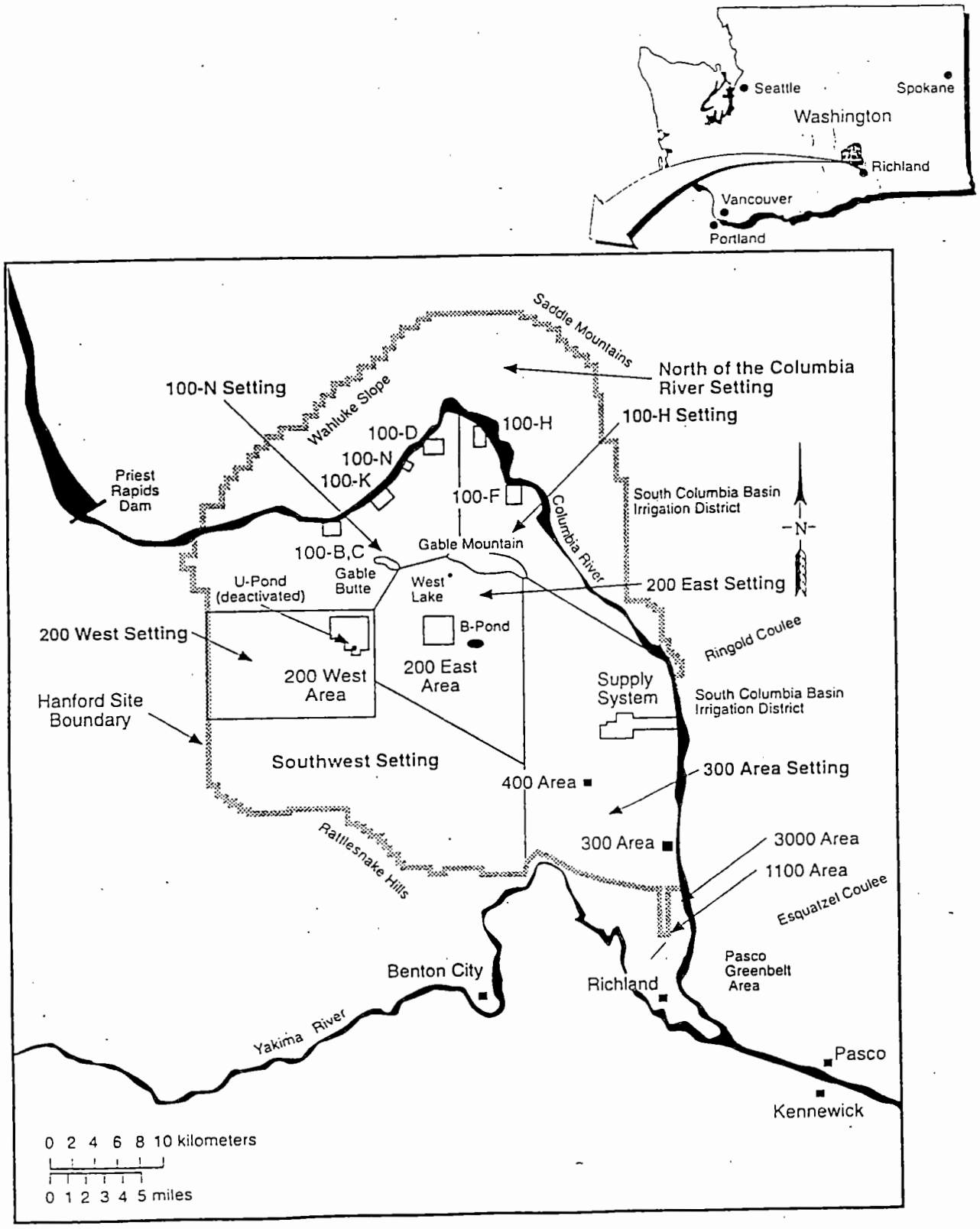


*Figure B3-15. Hydrostratigraphy of Hanford's Environmental Settings.*

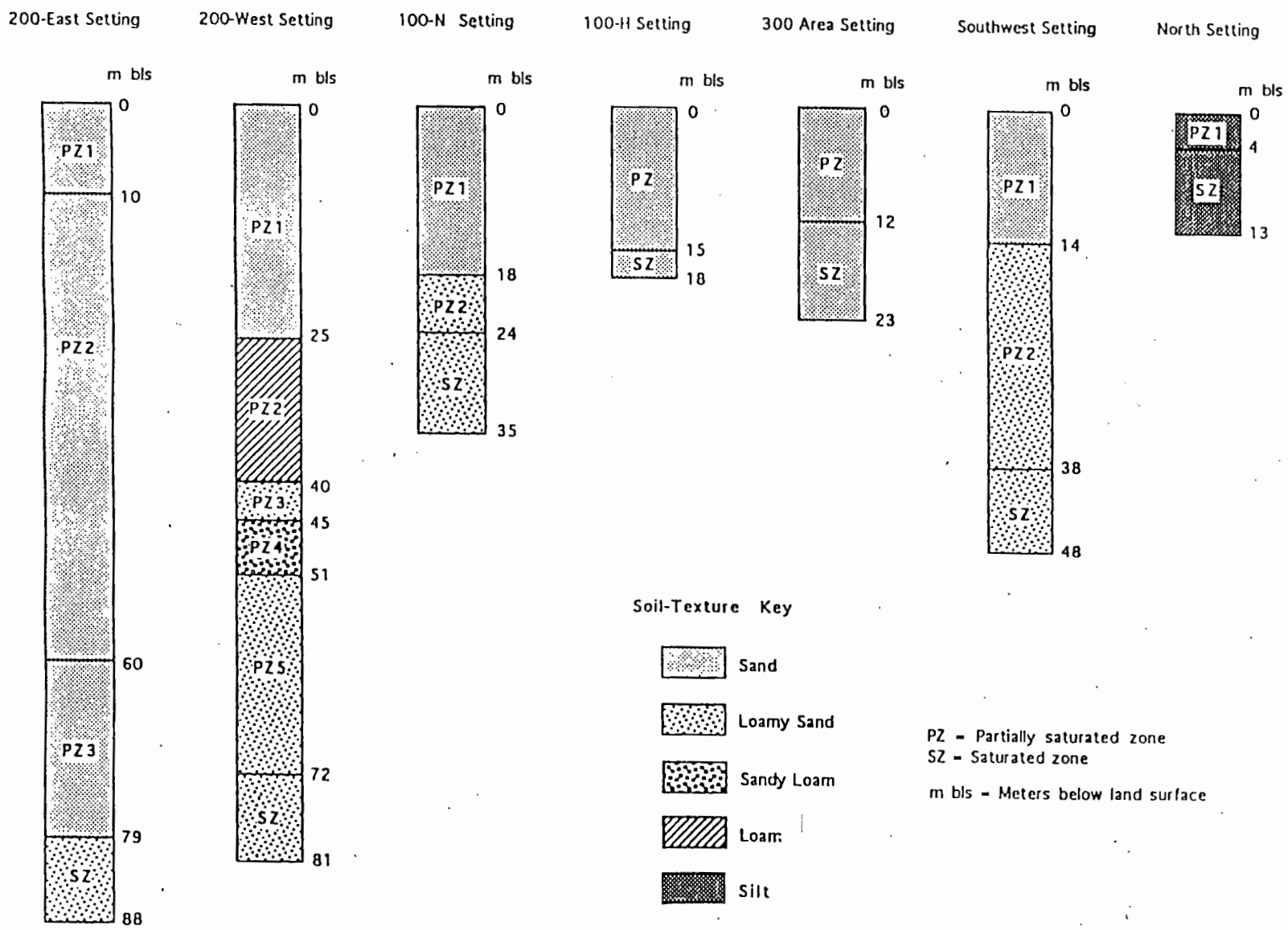


*Table B3-7. Source Term Parameter Values Used for 100-N Area.*

| MEPAS Parameter | Parameter | Value | Reference |
|---|---|---|---|
| WS-LEACHV | Waste liquid infiltration rate (ft/d) | 1.6E-4 | MEPAS* |

*Calculated from MEPAS analysis.

*Table B3-8. Partially Saturated Zone (PSZ) Parameter Values Used for 100-N Area.*

| MEPAS Parameter | Parameter | Parameter Values | | Reference |
|---|---|---|---|---|
| | | PSZ 1 of 2 layers | PSZ 2 of 2 layers | |
| WP-CLASS | Soil classification in PSZ | Sand | Loamy sand | Short and Smith 1994 |
| WP-SAND | % sand in PSZ | 90 | 87 | Short and Smith 1994 |
| WP-SILT | % silt in PSZ | 7 | 11 | Short and Smith 1994 |
| WP-CLAY | % clay in PSZ | 3 | 2 | Short and Smith 1994 |
| WP-OMC | % organic matter content in PSZ | 0 | 0 | Short and Smith 1994 |
| WP-IRON | % iron and aluminum in PSZ | 0 | 0 | Short and Smith 1994 |
| WP-PH | pH of the pore water in PSZ | 8.5 | 7.0 | Short and Smith 1994 |
| WP-THICK | Thickness of PSZ (ft) | 60.0 | 20.0 | Short and Smith 1994 |
| WP-BULKD | Bulk density of PSZ (g/cm$^3$) | 1.99 | 1.90 | Short and Smith 1994 |
| WP-TOTPOR | Total porosity of PSZ (%) | 30.0 | 30.0 | Short and Smith 1994 |
| WP-FIELD | Field capacity of PSZ (%) | 9.0 | 12.0 | Short and Smith 1994 |
| WP-LDISP | Longitudinal dispersivity of PSZ (ft) | 0.6 | 0.2 | Short and Smith 1994 |
| WP-CONDUC | Saturated hydraulic conductivity (ft/d) | 40.0 | 5.95 | Short and Smith 1994 |

*Table B3-9. Saturated Zone (SZ) Values Used for 100-N Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| WZ-CLASS | Soil classification in SZ | Loamy sand | Short and Smith 1994 |
| WZ-SAND | % sand in SZ | 87 | Short and Smith 1994 |
| WZ-SILT | % silt in SZ | 11 | Short and Smith 1994 |
| WZ-CLAY | % clay in SZ | 2 | Short and Smith 1994 |
| WZ-OMC | % organic matter content in SZ | 0 | Short and Smith 1994 |
| WZ-IRON | % iron and aluminum in SZ | 0 | Short and Smith 1994 |
| WZ-PH | pH of the pore water in SZ | 7.7 | Short and Smith 1994 |
| WZ-THICK | Thickness of SZ (ft) | 35.0 | Short and Smith 1994 |
| WZ-BULKD | Bulk density of SZ (g/cm$^3$) | 1.90 | Short and Smith 1994 |
| WZ-TOTPOR | Total porosity of SZ (%) | 30.0 | Short and Smith 1994 |
| WZ-EFFPOR | Effective porosity of SZ (%) | 11.0 | Short and Smith 1994 |
| WZ-PVELOC | Pore-water velocity of SZ (ft/d) | 10.8 | Schramke et al. 1994 |

*Table B3-10. Source Term Parameter Values Used for 100-H Area.*

| MEPAS Parameter | Parameter | Value | Reference |
|---|---|---|---|
| WS-LEACHV | Waste liquid infiltration rate (ft/d) | 1.6E-4 | MEPAS* |

*Calculated from MEPAS analysis.

*Table B3-11. Partially Saturated Zone (PSZ) Parameter Values Used for 100-H Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| | | PSZ 1 of 1 layers | |
| WP-CLASS | Soil classification in PSZ | Sand | Short and Smith 1994 |
| WP-SAND | % sand in PSZ | 91 | Short and Smith 1994 |
| WP-SILT | % silt in PSZ | 6 | Short and Smith 1994 |
| WP-CLAY | % clay in PSZ | 3 | Short and Smith 1994 |
| WP-OMC | % organic matter content in PSZ | 0 | Short and Smith 1994 |
| WP-IRON | % iron and aluminum in PSZ | 0 | Short and Smith 1994 |
| WP-PH | pH of the pore water in PSZ | 8.5 | Short and Smith 1994 |
| WP-THICK | Thickness of PSZ (ft) | 50.0 | Short and Smith 1994 |
| WP-BULKD | Bulk density of PSZ (g/cm$^3$) | 1.64 | Short and Smith 1994 |
| WP-TOTPOR | Total porosity of PSZ (%) | 38.0 | Short and Smith 1994 |
| WP-FIELD | Field capacity of PSZ (%) | 7.5 | Short and Smith 1994 |
| WP-LDISP | Longitudinal dispersivity of PSZ (ft) | 0.5 | Short and Smith 1994 |
| WP-CONDUC | Saturated hydraulic conductivity (ft/d) | 40.0 | Short and Smith 1994 |

*Table B3-12. Saturated Zone (SZ) Values Used for 100-H Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| WZ-CLASS | Soil classification in SZ | Sand | Short and Smith 1994 |
| WZ-SAND | % sand in SZ | 91 | Short and Smith 1994 |
| WZ-SILT | % silt in SZ | 6 | Short and Smith 1994 |
| WZ-CLAY | % clay in SZ | 3 | Short and Smith 1994 |
| WZ-OMC | % organic matter content in SZ | 0 | Short and Smith 1994 |
| WZ-IRON | % iron and aluminum in SZ | 0 | Short and Smith 1994 |
| WZ-PH | pH of the pore water in SZ | 7.5 | Short and Smith 1994 |
| WZ-THICK | Thickness of SZ (ft) | 10.0 | Short and Smith 1994 |
| WZ-BULKD | Bulk density of SZ (g/cm$^3$) | 1.64 | Short and Smith 1994 |
| WZ-TOTPOR | Total porosity of SZ (%) | 38.0 | Short and Smith 1994 |
| WZ-EFFPOR | Effective porosity of SZ (%) | 26.0 | Short and Smith 1994 |
| WZ-PVELOC | Pore-water velocity of SZ (ft/d) | 11.5 | Schramke et al. 1994 |

*Table B3-13. Source Term Parameter Values Used for 200 East Area.*

| MEPAS Parameter | Parameter | Value | Reference |
|---|---|---|---|
| WS-LEACHV | Waste liquid infiltration rate (ft/d) | 1.6E-4 | MEPAS* |

*Calculated from MEPAS analysis.

*Table B3-14. Partially Saturated Zone (PSZ) Parameter Values Used for 200 East Area.*

| MEPAS Parameter | Parameter | Parameter Values | | | Reference |
|---|---|---|---|---|---|
| | | PSZ 1 of 3 layers | PSZ 2 of 3 layers | PSZ 3 of 3 layers | |
| WP-CLASS | Soil classification in PSZ | Sand | Sand | Sand | Short and Smith 1994 |
| WP-SAND | % sand in PSZ | 90 | 95 | 90 | Short and Smith 1994 |
| WP-SILT | % silt in PSZ | 9 | 3 | 9 | Short and Smith 1994 |
| WP-CLAY | % clay in PSZ | 1 | 2 | 1 | Short and Smith 1994 |
| WP-OMC | % organic matter content in PSZ | 0 | 0 | 0 | Short and Smith 1994 |
| WP-IRON | % iron and aluminum in PSZ | 2 | 2 | 2 | Short and Smith 1994 |
| WP-PH | pH of the pore water in PSZ | 8.5 | 8.5 | 8.5 | Short and Smith 1994 |
| WP-THICK | Thickness of PSZ (ft) | 33.0 | 164.0 | 62.0 | Short and Smith 1994 |
| WP-BULKD | Bulk density of PSZ (g/cm3) | 1.76 | 1.60 | 1.76 | Short and Smith 1994 |
| WP-TOTPOR | Total porosity of PSZ (%) | 36.0 | 42.0 | 36.0 | Short and Smith 1994 |
| WP-FIELD | Field capacity of PSZ (%) | 19.0 | 8.5 | 19.0 | Short and Smith 1994 |
| WP-LDISP | Longitudinal dispersivity of PSZ (ft) | 0.33 | 1.64 | 0.62 | Short and Smith 1994 |
| WP-CONDUC | Saturated hydraulic conductivity (ft/d) | 4.34 | 14.2 | 4.34 | Short and Smith 1994 |

*Table B3-15. Saturated Zone (SZ) Parameter Values Used for 200 East Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| WZ-CLASS | Soil classification in SZ | Loamy Sand | |
| WZ-SAND | % sand in SZ | 86 | Short and Smith 1994 |
| WZ-SILT | % silt in SZ | 12 | Short and Smith 1994 |
| WZ-CLAY | % clay in SZ | 2 | Short and Smith 1994 |
| WZ-OMC | % organic matter content in SZ | 0 | Short and Smith 1994 |
| WZ-IRON | % iron and aluminum in SZ | 0 | Short and Smith 1994 |
| WZ-PH | pH of the pore water in SZ | 7.7 | Short and Smith 1994 |
| WZ-THICK | Thickness of SZ (ft) | 30.0 | Short and Smith 1994 |
| WZ-BULKD | Bulk density of SZ (g/cm$^3$) | 1.64 | Short and Smith 1994 |
| WZ-TOTPOR | Total porosity of SZ (%) | 18.0 | Short and Smith 1994 |
| WZ-EFFPOR | Effective porosity of SZ (%) | 10.0 | Short and Smith 1994 |
| WZ-PVELOC | Pore-Water velocity of SZ (ft/d) | 10.8 | Schramke et al. 1994 |

*Table B3-16. Source Term Parameter Values Used for 200 West Area.*

| MEPAS Parameter | Parameter | Value | Reference |
|---|---|---|---|
| WS-LEACHV | Waste liquid infiltration rate (ft/d) | 1.6E-4 | MEPAS* |

*Calculated from MEPAS analysis.

*Table B3-17. Partially Saturated Zone (PSZ) Parameter Values Used for 200 West Area.*

| MEPAS Parameter | Parameter | Parameter Values | | | | | Reference |
|---|---|---|---|---|---|---|---|
| | | PSZ 1 of 5 layers | PSZ 2 of 5 layers | PSZ 3 of 5 layers | PSZ 4 of 5 layers | PSZ 5 of 5 layers | |
| WP-CLASS | Soil classification in PSZ | Sand | Loam | Loamy Sand | Loamy Sand | Loamy Sand | Short and Smith 1994 |
| WP-SAND | % sand in PSZ | 95 | 45 | 86 | 73 | 87 | Short and Smith 1994 |
| WP-SILT | % silt in PSZ | 3 | 55 | 12 | 25 | 11 | Short and Smith 1994 |
| WP-CLAY | % clay in PSZ | 2 | 0 | 2 | 2 | 2 | Short and Smith 1994 |
| WP-OMC | % organic matter content in PSZ | 0 | 0 | 0 | 0 | 0 | Short and Smith 1994 |
| WP-IRON | % iron and aluminum in PSZ | 0 | 0 | 0 | 0 | 0 | Short and Smith 1994 |
| WP-PH | pH of the pore water in PSZ | 8.5 | 7.0 | 7.0 | 7.0 | 7.0 | Short and Smith 1994 |
| WP-THICK | Thickness of PSZ (ft) | 82.0 | 49.2 | 15.0 | 20 | 70.0 | Short and Smith 1994 |
| WP-BULKD | Bulk density of PSZ (g/cm3) | 1.75 | 1.65 | 1.65 | 1.90 | 1.76 | Short and Smith 1994 |
| WP-TOTPOR | Total porosity of PSZ (%) | 36 | 40 | 40 | 31.0 | 36 | Short and Smith 1994 |
| WP-FIELD | Field capacity of PSZ (%) | 11.0 | 13.0 | 18.0 | 7.2 | 12.0 | Short and Smith 1994 |
| WP-LDISP | Longitudinal dispersivity of PSZ (ft) | 0.82 | 0.492 | 0.15 | 0.20 | 0.7 | Short and Smith 1994 |
| WP-CONDUC | Saturated hydraulic conductivity (ft/d) | 34.0 | 6.46 | 193.0 | 5.67 | 5.95 | Short and Smith 1994 |

*Table B3-18. Saturated Zone (SZ) Parameter Values Used for 200 West Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| WZ-CLASS | Soil classification in SZ | Loamy Sand | |
| WZ-SAND | % sand in SZ | 87 | Short and Smith 1994 |
| WZ-SILT | % silt in SZ | 11 | Short and Smith 1994 |
| WZ-CLAY | % clay in SZ | 2 | Short and Smith 1994 |
| WZ-OMC | % organic matter content in SZ | 0 | Short and Smith 1994 |
| WZ-IRON | % iron and aluminum in SZ | 0 | Short and Smith 1994 |
| WZ-PH | pH of the pore water in SZ | 7.9 | Short and Smith 1994 |
| WZ-THICK | Thickness of SZ (ft) | 30.0 | Short and Smith 1994 |
| WZ-BULKD | Bulk density of SZ (g/cm$^3$) | 1.76 | Short and Smith 1994 |
| WZ-TOTPOR | Total porosity of SZ (%) | 36.0 | Short and Smith 1994 |
| WZ-EFFPOR | Effective porosity of SZ (%) | 11.0 | Short and Smith 1994 |
| WZ-PVELOC | Pore-Water velocity of SZ (ft/d) | 0.6 | Schramke et al. 1994 |

*Table B3-19. Source Term Parameter Values Used for 300 Area.*

| MEPAS Parameter | Parameter | Value | Reference |
|---|---|---|---|
| WS-LEACHV | Waste liquid infiltration rate (ft/d) | 1.6E-4 | MEPAS* |

*Calculated from MEPAS analysis.

*Table B3-20. Partially Saturated Zone (PSZ) Parameter Values Used for 300 Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| | | PSZ 1 of 1 layers | |
| WP-CLASS | Soil classification in PSZ | Sand | Short and Smith 1994 |
| WP-SAND | % sand in PSZ | 92 | Short and Smith 1994 |
| WP-SILT | % silt in PSZ | 6 | Short and Smith 1994 |
| WP-CLAY | % clay in PSZ | 2 | Short and Smith 1994 |
| WP-OMC | % organic matter content in PSZ | 0 | Short and Smith 1994 |
| WP-IRON | % iron and aluminum in PSZ | 0 | Short and Smith 1994 |
| WP-PH | pH of the pore water in PSZ | 8.5 | Short and Smith 1994 |
| WP-THICK | Thickness of PSZ (ft) | 40.0 | Short and Smith 1994 |
| WP-BULKD | Bulk density of PSZ (g/cm$^3$) | 2.06 | Short and Smith 1994 |
| WP-TOTPOR | Total porosity of PSZ (%) | 26.0 | Short and Smith 1994 |
| WP-FIELD | Field capacity of PSZ (%) | 7.5 | Short and Smith 1994 |
| WP-LDISP | Longitudinal dispersivity of PSZ (ft) | 0.4 | Short and Smith 1994 |
| WP-CONDUC | Saturated hydraulic conductivity (ft/d) | 40.0 | Short and Smith 1994 |

*Table B3-21. Saturated Zone (SZ) Values Used for 300 Area.*

| MEPAS Parameter | Parameter | Parameter Values | Reference |
|---|---|---|---|
| WZ-CLASS | Soil classification in SZ | Sand | Short and Smith 1994 |
| WZ-SAND | % sand in SZ | 92 | Short and Smith 1994 |
| WZ-SILT | % silt in SZ | 6 | Short and Smith 1994 |
| WZ-CLAY | % clay in SZ | 2 | Short and Smith 1994 |
| WZ-OMC | % organic matter content in SZ | 0 | Short and Smith 1994 |
| WZ-IRON | % iron and aluminum in SZ | 0 | Short and Smith 1994 |
| WZ-PH | pH of the pore water in SZ | 7.1 | Short and Smith 1994 |
| WZ-THICK | Thickness of SZ (ft) | 34.0 | Short and Smith 1994 |
| WZ-BULKD | Bulk density of SZ (g/cm$^3$) | 2.06 | Short and Smith 1994 |
| WZ-TOTPOR | Total porosity of SZ (%) | 26.0 | Short and Smith 1994 |
| WZ-EFFPOR | Effective porosity of SZ (%) | 23.2 | Short and Smith 1994 |
| WZ-PVELOC | Pore-water velocity of SZ (ft/d) | 35.0 | Schramke et al. 1994 |

*Table B3-22. Summary of Hydraulic and Geometric Conditions in the Columbia River.*

| River Reach | Discharge ($ft^3/s$) | Width (ft) | Depth (ft) | Velocity (ft/s) | Reference |
|---|---|---|---|---|---|
| Hanford Reach | 102,600 | 1,480 | 21 | 3.3 | Whelan et al. 1987c<br>Walters et al. 1983 |
| Downstream of Yakima R. Confluence | 106,270 | 2,170 | 33 | 1.5 | SNF 1994<br>EP 1991<br>Whelan et al. 1987c<br>Walters et al. 1983 |
| Downstream of Snake R. Confluence | 160,370 | 4,335 | 55 | 0.7 | Ruppert*<br>EP 1991<br>Whelan et al. 1987c<br>Walters et al 1983 |

*Ruppert, G., 1994, Telephone conversation with Mr. Greg Ruppert on April 27, 1994, based on U.S. Geological Survey water-discharge records.

## *B3.4 Transport Media*

### *B3.4.1 Distribution Coefficients at Hanford*

The degree of mobility of contaminants through the subsurface region is strongly influenced by the value of their distribution coefficients (i.e., $K_d$, ratio of distribution of the contaminant between the soil and water phases). Based on the physical and chemical/radiological attributes of the constituents, the Hanford soils fall into three basic categories with respect to the distribution coefficients: Type I (sand with pH $>$ 7.5), Type II (sand with pH $\leq$ 7.5), and Type III (loam/sandy loam with pH = 7) (Table B3-23). Distribution coefficients were developed for various aqueous species present in natural groundwater contacting various Hanford sediments. Table B3-24 presents a consolidated list of the Hanford sediments in the five geographic areas (300, 200 West, 200 East, 100-H, and 100-N) (Schramke et al. 1994), where the waste sites are located, presenting the soil distribution of the 22 soil categories associated with the overburden, vadose zones, and saturated zones at Hanford. Fifteen soils fall in Category I, five soils fall in Category II, and two soils fall in Category III.

Table B3-25 contains a list of the aqueous species that would form from many of the chemicals that have been identified in the waste site sites at Hanford. These chemicals represent the species that would be present if the inorganic chemicals were dissolved in water. For compounds that dissolve, $K_d$s are identified for the individual species that are formed. There is no chemical difference and, thus, no $K_d$ difference between various isotopes (stable or radioactive) for a given element; thus, separate $K_d$ values have not been listed for Sn, Sn-113, Sn-123, etc. Because of the difficulty of determining $K_d$ values for all organics, a zero value is assigned to them, except for the list of organics identified in Table B3-26, for which research has been performed to determine site-specific $K_d$ values (Ames and Serne 1991). For more information on Hanford distribution coefficients, refer to Serne et al. (1993), Serne and Wood (1990), and Ames and Serne (1991).

*Table B3-23. Regional Soil Characteristics as a Function of pH.*

| Soil Type | Texture | pH |
|---|---|---|
| I | Sand | 8.5 (text says pH > 7.5) |
| II | Sand | 7 (text says pH <= 7.5) |
| III | Loam | 7 |

*Table B3-24. List of Hanford Sediments in the Five Geographic Areas.*

| Soil Type | Hydrostratigraphic Zone | Texture | Sand (%) | Silt (%) | Clay (%) | Omc (%) | Iron (%) | pH |
|---|---|---|---|---|---|---|---|---|
| **300 Area** | | | | | | | | |
| I | Topsoil | Sand | 92 | 6 | 2 | 0 | 0 | 8.5 |
| I | PSZ | Sand | 92 | 6 | 2 | 0 | 0 | 8.5 |
| II | SZ | Sand | 92 | 6 | 2 | 0 | 0 | 7.1 |
| **200 West Area** | | | | | | | | |
| I | Topsoil | Sand | 95 | 3 | 2 | 0 | 0 | 8.5 |
| I | PSZ (1) | Sand | 95 | 3 | 2 | 0 | 0 | 8.5 |
| III | PSZ (2) | Loam | 45 | 55 | 0 | 0 | 0 | 7 |
| II | PSZ (3) | Loamy Sand | 86 | 12 | 2 | 0 | 0 | 7 |
| III | PSZ (4) | Sandy Loam | 73 | 25 | 2 | 0 | 0 | 7 |
| II | PSZ (5) | Loamy Sand | 87 | 11 | 2 | 0 | 0 | 7 |
| I | SZ | Loamy Sand | 87 | 11 | 2 | 0 | 0 | 7.9 |
| **200 East Area** | | | | | | | | |
| I | Topsoil | Sand | 90 | 9 | 1 | 0 | 2 | 8.5 |
| I | PSZ (1) | Sand | 90 | 9 | 1 | 0 | 2 | 8.5 |
| I | PSZ (2) | Sand | 95 | 3 | 2 | 0 | 2 | 8.5 |
| I | PSZ (3) | Sand | 90 | 9 | 1 | 0 | 2 | 8.5 |
| I | SZ | Loamy Sand | 86 | 12 | 2 | 0 | 0 | 7.7 |
| **100-H Area** | | | | | | | | |
| I | Topsoil | Sand | 91 | 6 | 3 | 0 | 0 | 8.5 |
| I | Psz | Sand | 91 | 6 | 3 | 0 | 0 | 8.5 |
| II | SZ | Sand | 91 | 6 | 3 | 0 | 0 | 7.5 |
| **100-N Area** | | | | | | | | |
| I | Topsoil | Sand | 90 | 7 | 3 | 0 | 0 | 8.5 |
| I | PSZ (1) | Sand | 90 | 7 | 3 | 0 | 0 | 8.5 |
| II | PSZ (2) | Loamy Sand | 87 | 11 | 2 | 0 | 0 | 7 |
| I | SZ | Loamy Sand | 87 | 11 | 2 | 0 | 0 | 7.7 |

*Table B3-25. $K_d$ Values (mL/g) for Inorganic Compounds Formed from Chemicals Identified in Hanford Soils (3 sheets).*

| Element | Species | Soil I | Soil II | Soil III | Reference |
|---|---|---|---|---|---|
| H | $^3H_2O$ | 0 | 0 | 0 | water ≡ $K_d$ ≡ 0 |
| Li | $Li^+$ | 0.2 | 0.2 | 0.8 | MEPAS[a] |
| Be | $Be^{2+}$ | 30 | 70 | 100 | Serne[b] |
| B | $BO_3^{3-}$ | .19 | .19 | 1.3 | MEPAS |
| C | $CO_3^{2-}$ | 0 | 0 | 0 | anion = 0 |
| C | $CN^-$ | 0 | 0 | 0 | anion = 0 |
| N | $NO_2^-$ | 0 | 0 | 0 | observed |
| N | $NO_3^-$ | 0 | 0 | 0 | observed |
| N | $NH_4^+$ | 0.2 | 0.2 | 0.8 | assume $Na^+$ |
| O | $OH^-$ | 0 | 0 | 0 | anion |
| F | $F^-$ | 0 | 0 | 0 | anion |
| Na | $Na^+$ | 0.2 | 0.2 | 0.8 | MEPAS |
| Mg | $Mg^{2+}$ | 7 | 7 | 14 | 1/10 MEPAS ($Ca^{2+}$) |
| Al | $Al^{3+}$ | 300 | 300 | 350 | ≈ 1/100 MEPAS |
| Al | $AlO_2^-$ | 0 | 0 | 1 | anion |
| Si | $SiO_4^{4-}$ | 0 | 0 | 0 | anion |
| P | $PO_4^{3-}$ | 50 | 50 | 50 | MEPAS |
| S | $SO_4^{2-}$ | 0 | 0 | 0 | MEPAS |
| Cl | $Cl^-$ | 0 | 0 | 0 | MEPAS |
| K | $K^+$ | 0.2 | 0.2 | 0.8 | MEPAS ($Na^+$) |
| Ca | $Ca^{2+}$ | 7 | 7 | 14 | 1/10 MEPAS ($Ca^{2+}$) |
| Sc | $Sc^{3+}$ | 50 | 100 | 250 | use $Cr^{3+}$ |
| V | $VO_4^{3-}$ | 5 | 10 | 20 | guess[b] |
| V | $VO_3^-$ | 5 | 10 | 20 | guess[b] |
| Cr | $Cr^{3+}$ | 50 | 100 | 250 | Serne |
| Cr | $CrO_4^{2-}$ | 0 | 0 | 1 | observed |
| Mn | $Mn^{2+}$ | 30 | 70 | 100 | use $Be^{2+}$ |
| Mn | $MnO_4^-$ | 0 | 0 | 0 | anion |
| Fe | $Fe^{2+}$ | 15 | 15 | 30 | known to adsorb better than Mg |
| Fe | $Fe^{3+}$ | 50 | 50 | 50 | known to adsorb better than $Fe^{2+}$ |
| Co | $Co^{2+}$ | 20 | 12 | 50 | observed |
| Ni | $Ni^{2+}$ | 20 | 12 | 50 | observed |
| Cu | $Cu^{2+}$ | 20 | 12 | 50 | same as Ni |
| Zn | $Zn^{2+}$ | 20 | 12 | 50 | Same as Ni |
| Ge | $Ge^{4+}$ | 200 | 300 | 350 | use $Al^{3+}$ |
| As | $AsO_4^{3-}$ | 30 | 50 | 300 | Serne |
| As | $AsO_3^{3-}$ | 3 | 5 | 10 | Serne |
| Se | $SeO_4^{2-}$ | 0 | 2 | 5 | Serne |
| Se | $SeO_3^{2-}$ | 0 | 1 | 3 | Serne |
| Br | $Br^-$ | 0 | 0 | 0 | anion |

*Table B3-25. $K_d$ Values (mL/g) for Inorganic Compounds Formed from Chemicals Identified in Hanford Soils (3 sheets).*

| Element | Species | Soil I | Soil II | Soil III | Reference |
|---|---|---|---|---|---|
| Kr | Kr (gas) | 0 | 0 | 0 | inert gas |
| Rb | $Rb^{+}$ | 0.2 | 0.2 | 0.8 | same as $Na^{+}$ |
| Sr | $Sr^{2+}$ | 15 | 10 | 25 | observed |
| Y | $Y^{3+}$ | 100 | 100 | 200 | guess[b] |
| Zr | $Zr^{4+}$ | 50 | 50 | 100 | like Lanthanides |
| Nb | $Nb^{5+}$ | 100 | 100 | 200 | observed |
| Mo | $Mo^{3+}$ | 50 | 50 | 100 | assume like La |
| Mo | $MoO_4^-$ | 0 | 0 | 1 | similar $TcO_4^-$ |
| Tc | $TcO_4^-$ | 0 | 0 | 0 | observed |
| Ru | $Ru^{3+}$ | 50 | 50 | 100 | assume like La |
| Ru | $RuO_4^-$ | 0 | 1 | 2 | anion guess[b] |
| Ag | $Ag^{+}$ | 1 | 1 | 5 | monovalent sorbs better than $Na^{+}$ |
| Cd | $Cd^{2+}$ | 20 | 12 | 50 | like Ni |
| In | $In^{3+}$ | 100 | 100 | 200 | guess[b] |
| Sn | $Sn^{2+}$ | 200 | 300 | 350 | assume $Al^{3+}$ |
| Sn | $Sn^{4+}$ | 100 | 150 | 175 | ½ of $Sn^{2+}$ |
| Sb | $SbO_2^-$ | 0 | 1 | 2 | anion guess[b] |
| Sb | $SbO_3^-$ | 0 | 0 | 1 | anion guess[b] |
| I | $I^-$ | 0 | 0 | 0 | observed |
| I | $IO_3^-$ | 0 | 0 | 0 | guess[b] |
| Cs | $Cs^{+}$ | 50 | 30 | 100 | observed |
| Ba | $Ba^{2+}$ | 15 | 10 | 25 | assume $Sr^{2+}$ |
| La-Lu | $Ce^{3+}$ | 50 | 50 | 100 | MEPAS |
| La-Lu | $Pm^{3+}$ | 50 | 50 | 100 | MEPAS |
| La-Lu | $Sm^{3+}$ | 50 | 50 | 100 | MEPAS |
| La-Lu | $Eu^{3+}$ | 50 | 50 | 100 | MEPAS |
| La-Lu | $Tm^{3+}$ | 50 | 50 | 100 | MEPAS |
| Ta | $Ta^{5+}$ | 100 | 100 | 200 | guess[b] |
| Re | $ReO_4^-$ | 0 | 0 | 0 | observe |
| Au | $Au^{3+}$ | 100 | 100 | 200 | guess[b] |
| Hg | $Hg^{2+}$ | 100 | 100 | 200 | MEPAS |
| Tl | $Tl^-$ | 0.2 | 0.2 | 0.8 | like $Na^{+}$ |
| Pb | $Pb^{2+}$ | 100 | 100 | 200 | observe |
| Bi | $Bi^{3+}$ | 100 | 100 | 200 | assume like Pb |
| Po | $Po^{2+}$ | 100 | 100 | 200 | assume like Pb |
| Ra | $Ra^{2+}$ | 30 | 20 | 50 | ≈ 2 x Sr |
| Th | $Th^{4+}$ | 50 | 50 | 100 | like La |
| Pa | $Pa^{4+}$ | 50 | 50 | 100 | like La |
| U | $U^{4+}$ | 100 | 100 | 250 | Serne |
| U | $UO_2^{2+}$ | 1 | 2 | 3 | Serne |

*Table B3-25. $K_d$ Values (mL/g) for Inorganic Compounds Formed from Chemicals Identified in Hanford Soils (3 sheets).*

| Element | Species | Soil I | Soil II | Soil III | Reference |
|---|---|---|---|---|---|
| Np | $NpO_2^{+}$ | 1 | 0 | 2 | Serne |
| Np | $Np^{4+}$ | 200 | 200 | 500 | Serne |
| Pu | $Pu^{3+}$, $Pu^{4+}$ | 200 | 200 | 500 | Serne |
| Pu | $PuO_2^{+}$, | 1 | 1 | 5 | Serne |
| Am | $PuO_2^{2+}$ | 50 | 50 | 100 | like La |
| | $Am^{3+}$ | | | | |
| Cm | $Cm^{3+}$ | 50 | 50 | 100 | like La |
| Bk | $Bk^{4+}$ | 50 | 50 | 100 | like La |
| Cf | $Cf^{3+}$ | 50 | 50 | 100 | like La |
| Es | $Es^{3+}$ | 50 | 50 | 100 | like La |

[a]Documented in the MEPAS database (Strenge and Peterson 1989).
[b]Recommended by R. J. Serne, Staff Scientist, Pacific Northwest Laboratory.

*Table B3-26. $K_d$ Values (mL/g) for Organic Chemicals.*

| Organic Chemical | Soil I | Soil II | Soil III | Reference/Justification |
|---|---|---|---|---|
| butyl phosphates | 4 | 4 | 8 | Ames and Serne 1991 |
| tributyl phosphates | 4 | 4 | 8 | Ames and Serne 1991 |
| dibutyl phosphonate | 4 | 4 | 8 | assume like TBP |
| tributyl phosphonate | 4 | 4 | 8 | assume like TBP |
| carbon tetrachloride | 0 | 0 | 0 | moves in Hanford soils |
| trichlorethylene | 0 | 0 | 0 | moves in most soils |
| normal paraffin hydrocarbons | 100 | 100 | 200 | solubility in water is low |
| sulfamate | 0 | 0 | 0 | soluble; guess on $K_d$ |
| oxalate | 5 | 5 | 10 | forms insoluble calcium salt, so guess |
| methyl isobutyl ketone | 0 | 0 | 0.02 | Ames and Serne 1991 |

*B3.4.2 Groundwater*

Generating groundwater model input data on source location and size was based on review of documents containing information on liquid waste disposal facilities, contaminant concentrations in monitoring wells, and direction of groundwater flow. Where contaminants were primarily located near a single liquid waste disposal unit and/or downgradient from it, that unit was chosen as the source. Where contaminants were primarily located downgradient from a cluster of liquid disposal units, the area that encompassed the cluster was designated as the source. Where contaminants were dispersed throughout an area with no obvious relationship to a single source or a cluster of sources, the entire area was designated as a source.

The pertinent aquifer properties that must be input to the analytical transport model include effective porosity, aquifer thickness, and bulk density. Estimating pore water velocity for model input involved obtaining (1) velocities from other sources, (2) calculating velocities via Darcy's law from information on hydraulic conductivity and hydraulic head gradient and effective porosity in the vicinity of the plume, or (3) estimating velocities based on plume travel time and distance.

Aquifer parameter values developed for the hydrogeologic environmental settings described in Section B3.3.2 that apply directly to the present model calculations of contaminant concentrations are effective porosity and bulk density. The environmental setting values were used for these parameters unless there were different values documented at specific locations of existing plumes. Values for these parameters do not change much along the paths of plumes that travel from one setting to another. The values of these parameters were not varied for calibration and were not changed for calculation of future plumes that traverse more than one environmental setting.

Hydraulic conductivity values given for the environmental settings were used to calculate pore velocities for model input if no documented values for specific plume sites were found. Pore velocity values were varied, if necessary, for plume calibration. The pore velocity associated with a calibrated plume was retained for modeling future development of the plume, including extending from one environmental setting into another during contaminant transport from the Central Plateau area to the Columbia River. This procedure may have resulted in relatively high pore velocities for some future plumes because hydraulic gradients tend to be greater now than they would be in the future. The current high gradients are caused by water table mounding beneath liquid waste disposal facilities. This mounding would diminish in the future. As discussed below, high pore water velocities result in relatively rapid plume movement. This is conservative in the sense that contaminants move farther from the source in a given time, but not conservative with regard to the duration of natural flushing of the aquifer.

Longitudinal dispersivities were based on a relation between longitudinal dispersivity and mean plume travel distance presented by Walton (1985). This relationship is based on values of dispersivities obtained from field studies. Longitudinal dispersivities applied to one plume were also applied to other plumes following similar paths. Transverse dispersivities were set at one-fifth of the longitudinal dispersivity, and vertical dispersivity was obtained by multiplying longitudinal dispersivity by 0.00116 in accordance with MEPAS guidance (Droppo et al. 1991). Dispersivities were not increased when future plume locations and concentrations were simulated. This treatment is conservative in terms of maximum calculated concentration.

A key well, thought to be representative, was selected for each plume. Representativeness was based on the contaminant concentration at the well relative to other concentrations in the area. Other items considered were location relative to the source, distance from the axis of the plume, and sampling depth. An attempt was made to select a well that would result in a calculated plume similar to the real one after calibration.

Calibration of the calculated plume was based on the contaminant concentration in the key well. It was performed by making a preliminary model run with an estimated source flux rate. The ratio of the preliminary calculated concentration to the measured concentration was then applied to the source flux rate. If concentrations calculated for the 1-km (0.6-mi) grid spacing indicated that the key well or a significant input parameter was not representative, a new calibration was performed. Such examination and adjustment provided a check on the representativeness of the key well and input parameters, while avoiding time-consuming consideration of all monitoring wells during the calibration.

This approach cannot provide a calibrated plume in only two runs if no truly representative monitoring well exists, which may occur when an area source is used to represent a cluster of sources and all wells are monitoring individual sources. Furthermore, the approach may not provide a calibrated plume when the number and distribution of monitoring wells is insufficient to support selection of a representative one. Compensating for such cases involves checking source flux rates for realism and checking concentrations calculated on the 1-km (0.6-mi) grid for realism. If the model areal distribution of calculated concentrations is not realistic based on the original calibration, some adjustment must be made. The adjustment may be selecting a new key well based on the new information. Also, parameters that contain a high degree of uncertainty may be adjusted. These parameters include local groundwater velocity, local distribution coefficient, and starting and ending times for source flux. The effects of pore water velocity and distribution coefficient are not easily separated. These two parameters jointly affect the travel distance of the plume. The practical consequences of the selection of one over the other to govern plume travel distance is nil, since they are combined in the model code to produce a retarded velocity.

The calculation of concentrations in the 1-km (0.6-mi) grid involved (1) establishing a groundwater flow line from the source of each plume to the Columbia River, (2) treating this flow line as the axis of the plume, (3) calculating distance along the axis and lateral distance from the axis for the center of each 1-km (0.6-mi) cell, (4) putting these distances into model input files for calibrated plumes, and (5) running the model to calculate concentrations at the grid points. To calculate concentrations at future times at locations other than at the source, pathlines were determined from the cells containing the aggregated waste sites to surrounding locations. For example, Figure B3-5 presents the pathlines through the groundwater to the Columbia River from the cells containing the aggregated waste sites. The flow lines from sources to the river were taken from particle tracks of an existing CFEST flow model fitted with straight line segments (Figure B3-6) for December 1992 flow conditions at Hanford. While these flow lines are for current conditions, comparison with results of numerical solute transport modeling for future conditions presented by Westinghouse Hanford Company in *Hanford Groundwater Cleanup and Restoration Concept Study* (WHC 1992, Figures B-27, B-28, B-31, B-32, B-33, and B-44) show that they also apply reasonably well to future conditions. The pathline representation that was used in this assessment is illustrated on Figure B3-6.

A computer code was developed to calculate the location of centers of 1-km (0.6-mi) cells relative to the flow lines from the sources, which are equivalent to the axes of plumes from the sources. The code searches for the grid points that are close enough to the axis to be within the

plume. For each point, it calculates the distance from the flow line measured along a perpendicular (y-distance for MEPAS), and it calculates the distance from the source to the perpendicular measured along the segmented flow line. Points near the junction of two line segments that have perpendiculars to both segments are assigned a y-distance equal to the distance from the point to the juncture. The x-distance for such points is the average of the distance to the two perpendiculars. Points near a junction that have no perpendiculars are also assigned a y-distance equal to the distance to the juncture. The x-distance for these points is the distance along the flow line to the juncture. In this way concentrations along curved flow paths are approximated with an analytical model that assumes a straight flow path.

The x- and y-distances are added to the input file of the calibrated run for the plume so that concentrations at the grid points are calculated for current conditions. If the results represent observed concentrations reasonably well, the input file is used to calculate concentrations at future times by changing the value for time in the input file.

Analytical modeling of this sort involves many assumptions that make the model a very simplified representation of the real groundwater system. These assumptions create uncertainty regarding how well the calculated concentrations represent true concentrations. For current conditions, uncertainty may be evaluated by comparing calculated to observed concentrations. In the modeling for this EIS, uncertainty was treated by choosing key wells and input parameters that would generate error in the conservative direction. That is, the policy was to select wells with relatively high contaminant concentrations. Calibrating to relatively high contaminant concentrations tends to produce high calculated concentrations and overestimate source flux rate. When dealing with uncertainty in pore velocities and distribution coefficients, the policy was to use a relatively high pore velocity and low distribution coefficient (high retarded velocity). This tends to promote relatively rapid plume movement. The policy is conservative in the sense that contaminants move farther from the source in a given time. It is also conservative when key wells are in the tail of a plume, because it causes downgradient concentrations to be overestimated. It is not conservative with regard to the duration of natural flushing of the aquifer.

Because plumes from different wastes sites can overlap, the concentrations from multiple waste sites at downgradient cells were addressed. When multiple waste sites transported contamination to the same downgradient cell, the concentrations were added by constituent. The concentrations can be added because of the linearity of the system. The results of the concentration calculations are presented in Table B3-27. Six regions were identified that adequately describe the groundwater modeling for the Hanford Site. These are plumes originating in the 100-N Area, 100-H Area, 200 West Area, 200 East Area, 300 Area, and Southwest Region.

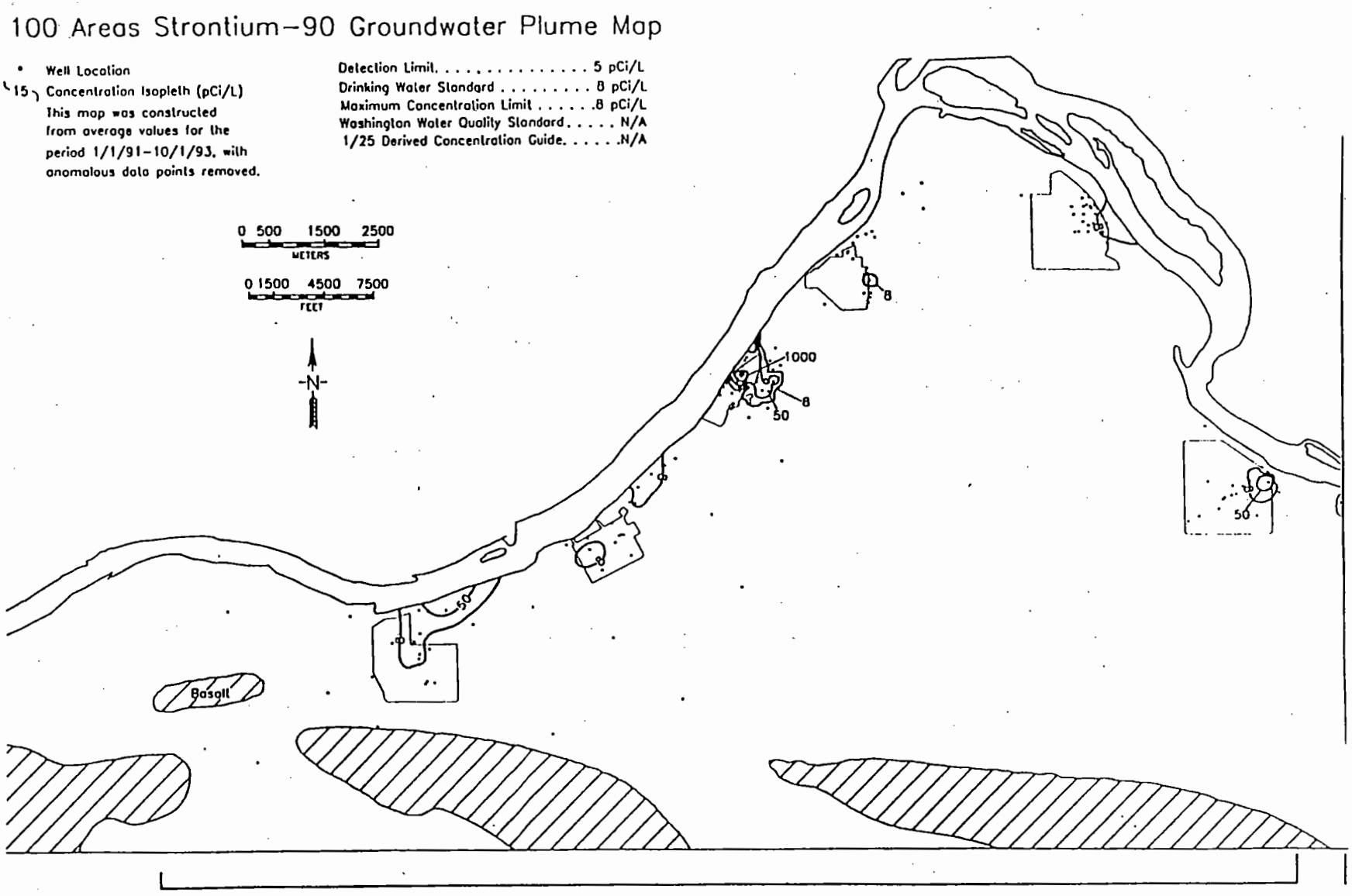
***B3.4.2.1 Plumes Originating in the 100-N Area.*** The 100-N Area includes the 100-B/C, 100-K, 100-N, and 100-D reactor sites. Strontium-90 plumes affect estimates of cost and duration of remedial actions the most. Strontium-90 is found at concentrations above the state of Washington drinking water standard of 8 pCi/L at all of the reactor sites (Figure B3-16) (DOE-RL 1994a), although concentrations are low in the 100-K Area. This constituent would be difficult to remove because it is highly bound to aquifer solids, and many pore volumes of groundwater must flow through the contaminated parts of the aquifer to flush the strontium-90 to extraction wells. Future experimental work may produce cost-effective lixiviants that would accelerate strontium-90 removal. The strontium-90 plume with the highest concentrations is in the 100-N reactor area, where

*Table B3-27. Maximum Constituent Concentrations.*

| Constituent | Units | 40 Years Into Future | | 100 Years Into Future | |
|---|---|---|---|---|---|
| | | Max. Conc. | Cell ID | Max. Conc. | Cell ID |
| Arsenic | ug/L | 8.15E-02 | 586123 | 1.53E-03 | 587123 |
| Carbon Tet | ug/L | 3.47E+03 | 567135 | 1.03E+03 | 567135 |
| Chloroform | ug/L | 1.75E+01 | 567135 | 5.02E+00 | 568135 |
| Chromium | ug/L | 1.02E+03 | 568133 | 2.44E+02 | 569133 |
| Cobalt-60 | pCi/L | 5.15E-01 | 572139 | 1.28E-04 | 572140 |
| Cs-137 | pCi/L | 0.00E+00 | all cells | 0.00E+00 | all cells |
| Cyanide | ug/L | 1.00E+04 | 573137 | 6.96E+03 | 573138 |
| DCA | ug/L | 9.62E-04 | 590127 | 2.56E-04 | 594121 |
| DCE | ug/L | 0.00E+00 | all cells | 0.00E+00 | all cells |
| Fluoride | ug/L | 3.95E+04 | 567136 | 1.79E+04 | 568136 |
| I-129 | pCi/L | 4.10E+02 | 568133 | 9.80E+01 | 569133 |
| Nitrate | ug/L | 9.69E+05 | 569147 | 4.77E+04 | 570149 |
| PCE | ug/L | 1.38E-01 | 579130 | 3.87E-02 | 580131 |
| PU-239 | pCi/L | 0.00E+00 | all cells | 1.57E-19 | 573136 |
| SR-90 | pCi/L | 1.50E+03 | 571148 | 1.69E+02 | 571148 |
| TC-99 | pCi/L | 6.21E+03 | 568135 | 1.93E+03 | 569135 |
| TCE | ug/L | 1.56E+03 | 566136 | 5.74E+02 | 566136 |
| Tritium (H-3) | pCi/L | 9.76E+04 | 572140 | 1.00E+03 | 571150 |
| Uranium | pCi/L | 4.93E+02 | 567136 | 2.35E+04 | 567136 |

| Constituent | Units | 140 Years Into Future | | 1,000 Years Into Future | | 10,000 Years Into Future | |
|---|---|---|---|---|---|---|---|
| | | Max. Conc. | Cell ID | Max. Conc. | Cell ID | Max. Conc. | Cell ID |
| Arsenic | ug/L | 7.77E-05 | 587123 | 8.60E-08 | 571146 | 1.93E-17 | 572150 |
| Carbon Tet | ug/L | 7.76E+02 | 568135 | 2.91E+01 | 569143 | 1.64E-07 | 567146 |
| Chloroform | ug/L | 3.06E+00 | 568135 | 1.15E-01 | 568145 | 9.05E-07 | 594122 |
| Chromium | ug/L | 1.36E+02 | 570133 | 3.36E+00 | 572147 | 3.26E-16 | 582146 |
| Cobalt-60 | pCi/L | 3.93E-07 | 572140 | 0.00E+00 | all cells | 0.00E+00 | all cells |
| Cs-137 | pCi/L | 0.00E+00 | all cells | 1.20E-12 | 573136 | 0.00E+00 | all cells |
| Cyanide | ug/L | 3.92E+03 | 572139 | 2.67E+02 | 574145 | 9.07E-04 | 582146 |
| DCA | ug/L | 8.96E-05 | 593120 | 0.00E+00 | 579130 | 0.00E+00 | 579130 |
| DCE | ug/L | 0.00E+00 | all cells | 0.00E+00 | all cells | 0.00E+00 | all cells |
| Fluoride | ug/L | 1.18E+04 | 569136 | 3.85E+02 | 567146 | 0.00E+00 | 562146 |
| I-129 | pCi/L | 5.46E+01 | 570133 | 1.35E+00 | 572147 | 1.55E-05 | 582147 |
| Nitrate | ug/L | 1.66E+04 | 570149 | 6.59E-01 | 582146 | 0.00E+00 | all cells |
| PCE | ug/L | 2.54E-02 | 580131 | 5.92E-04 | 586132 | 5.29E-09 | 594121 |
| PU-239 | pCi/L | 1.46E-14 | 573136 | 1.13E+00 | 573136 | 7.30E-02 | 573137 |
| SR-90 | pCi/L | 3.18E-09 | 575139 | 3.18E-09 | 575139 | 0.00E+00 | all cells |
| TC-99 | pCi/L | 1.20E+03 | 570135 | 3.83E+01 | 570149 | 3.25E-11 | 570149 |
| TCE | ug/L | 1.77E+02 | 566136 | 3.85E+00 | 568136 | 4.02E-02 | 567146 |
| Tritium (H-3) | pCi/L | 4.68E+01 | 571150 | 2.38E-26 | 573152 | 0.00E+00 | all cells |
| Uranium | pCi/L | 2.31E+04 | 567136 | 1.19E+03 | 568136 | 4.89E+01 | 571139 |

*Figure B3-16. Strontium-90 Groundwater Plume Map for the 100 Areas.*



concentrations would have to be reduced from about 1,580 pCi/L to 8 pCi/L to meet the requirements of the state of Washington and federal drinking water standards. For strontium-90, the concentration of 8 pCi/L would result in an effective dose equivalent of 4 mrem/year to bone marrow if this were the only source of drinking water used by an adult reference individual.

*B3.4.2.2 Plumes Originating in the 100-H Area.* The 100-H Area includes the 100-H and 100-F reactor sites. The 100-F site contains a strontium-90 plume where concentrations as high as 250 pCi/L have been recorded. Strontium-90 concentrations in the 100-H Area are relatively low, and uranium is likely to be the most difficult contaminant to remove. It is moderately adsorbed and the use of a lixiviant might be beneficial.

*B3.4.2.3 Plumes Originating in the 200 West Area.* A carbon tetrachloride plume underlies most of the 200 West site (Figure B3-17). Concentrations as high as 760 µg/L have been reported. The state of Washington drinking water standard is 0.3 µg/L and the federal drinking water standard is 5 µg/L. The most extensive plume in the 200 West Area is the southern tritium plume (Figure B3-18) (DOE-RL 1994a). It originates in the southern part of the 200 West Area and extends to the east, bending northward toward the gap between Gable Mountain and Gable Butte.

*B3.4.2.4 Plumes Originating in the 200 East Area.* The constituents in most of the 200 East plumes are not highly adsorbed and would tend to move downgradient and disperse when the sources have been deactivated. A large tritium plume originates near the southeastern corner of the Site and extends to the Columbia River. Adsorbed constituents represented in 200 East plumes include strontium-90, cesium-137, uranium, and cyanide. Strontium-90 and cesium-137 are found in monitoring wells located near the 216-B-5 reverse well. Even though their concentrations are high, they are unlikely to migrate out of the 200 East Area before they have decayed sufficiently to meet water quality standards. Strontium-90 is found at lower concentrations elsewhere, especially in the Gable Mountain Pond area. Cyanide is lightly adsorbed; it is present in the Gable Mountain Pond area and would probably require a longer duration of pumping for protection of downgradient areas than any of the other plumes.

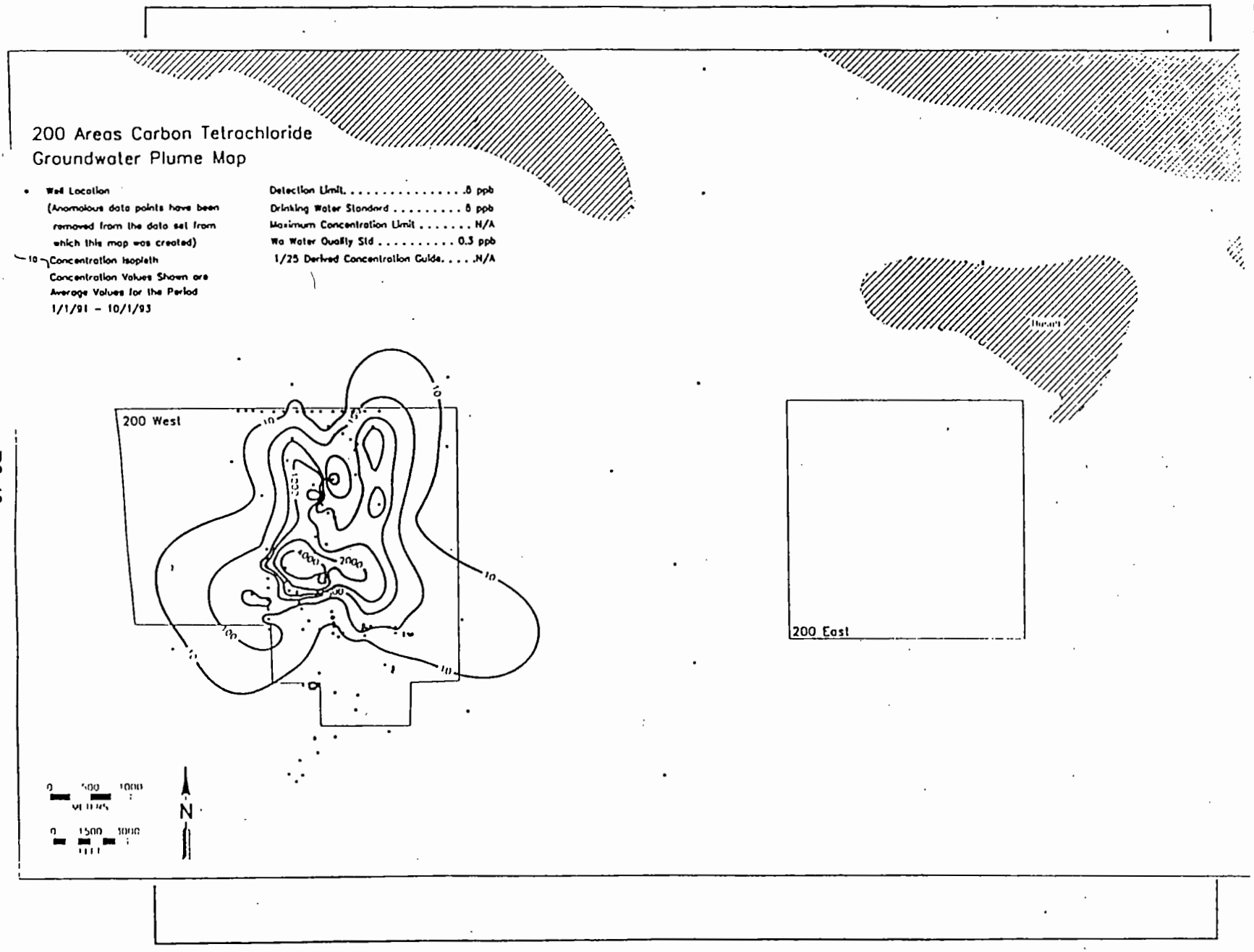
*B3.4.2.5 Plumes Originating in the 300 Area.* The largest plume in the 300 Area is a uranium plume with the highest concentrations near the 316-5 process trenches. A large amount of trichlorethylene has been disposed in the 316-1 and 316-2 process ponds and is found in the groundwater of the area along with the degradation product 1,2-dichloroethylene. Trichloroethylene is also found around the periphery of the Horn Rapids Landfill, which is located immediately south of the 300 Area. The tritium plume from the 200 East Area has reached the 300 Area.

*B3.4.2.6 Plumes Originating in the Southwest Region.* Plumes originating in the Southwest Region are trichloroethylene and perchloroethylene found in wells adjacent to the Nonradioactive Dangerous Waste Landfill.

### *B3.4.3 Air*

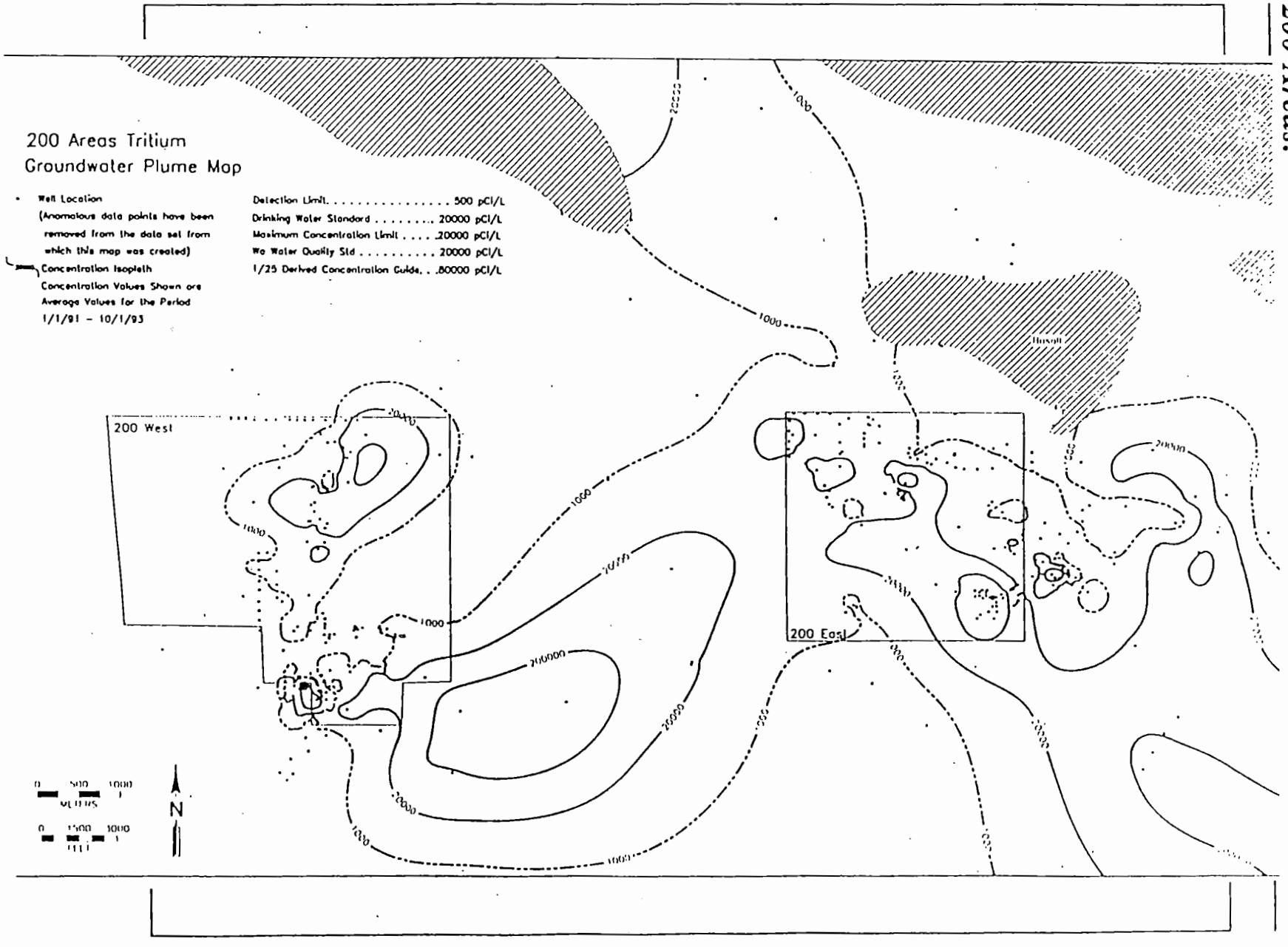
Air and soil concentrations were calculated for locations within an 80-km (50-mi) radius for 16 different directional sectors and 12 different radii from the center of the aggregated waste site as described in Section B3.2.1. The atmospheric pathway in the MEPAS program uses a sectored-average-Gaussian approach to distribute contaminants that are released into the environment via volatilization or resuspension of contaminated particles. A computer program was written to translate the atmospheric polar-coordinate system and overlay it into the GIS cartesian-coordinate system.

*Figure B3-17. Carbon Tetrachloride Groundwater Plume Map for the 200 Areas.*



9613470.0679

*Figure B3-18. Tritium Groundwater Plume Map for the 200 Areas.*



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# Appendix B4

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# B4.0 Exposure Assessment

This appendix describes the exposure scenarios used as the basis for the risk assessment for the *Hanford Remedial Action Environmental Impact Statement* (EIS) and the generation of the corresponding unit risk factors (URF). The exposure scenarios are modeled after those in the *Hanford Site Baseline Risk Assessment Methodology (HSBRAM)* (DOE-RL 1993a) published by the U.S. Department of Energy (DOE). The HSBRAM scenarios were developed as a guide when performing evaluations of risk related to *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* remedial investigations and *Resource Conservation and Recovery Act of 1976* facility investigations. The URFs were calculated for the four exposure scenarios defined in the HSBRAM. These scenarios are described in detail in Section B4.1. The URFs give the human health risk for an exposure scenario per unit concentration of a contaminant in a defined transport medium. The URFs are then multiplied by the calculated medium concentration to estimate risk. The URFs depend on the contaminant type (i.e., radionuclide, chemical carcinogen, chemical noncarcinogen) and are evaluated appropriately for each contaminant.

The URFs were calculated using the Multimedia Environmental Pollutant Assessment System (MEPAS) exposure assessment component (Droppo et al. 1989). Section B4.2 describes the methods for URF evaluation, radionuclide and chemical health impact analysis, and summary intake factor (SIF) evaluation. Sensitivity analyses of MEPAS are described in *Multimedia Environmental Pollutant Assessment System (MEPAS) Sensitivity Analysis of Computer Codes* (Doctor et al. 1990) and *Analysis of Health Impacts Inputs to the U.S. Department of Energy Risk Information System* (Droppo et al. 1990).

The four HSBRAM scenarios are agricultural, residential, industrial, and recreational. The URFs were calculated for each of these scenarios for an array of media, exposure pathways, and contaminants, as follows:

- medium: soil (per unit mass), soil (per unit area), air, groundwater, and surface water
- exposure pathway: 22 pathways defined, as appropriate for each scenario
- contaminant: 47 chemicals and 101 radionuclides.

The contaminants included in the analysis were selected based on the source-term database for this EIS. The list of chemicals is given in Table B4-1 and the list of radionuclides is given in Table B4-2. In some cases, the initial list included chemical compounds such as ferric nitrate. For the URF analysis, contaminants were evaluated as the compound, as well as the individual constituents. For example, ferric nitrate was evaluated as the compound, as the ferric ion, and as the nitrate ion.

The URF analyses are intended to provide estimates of health impacts per unit concentration of contaminant in a medium. The health impact measure for carcinogenic chemicals and radionuclides is the lifetime cancer incidence from intake received during a defined exposure duration. For noncarcinogenic chemicals, the health impact measure is the hazard index, which is the ratio of the daily intake to the reference dose (evaluated for ingestion and inhalation intake routes).

For each contaminant, the health impacts were added across all exposure pathways for a given scenario and medium (see exposure pathway lists in Tables B4-3, B4-4, B4-5, and B4-6). Because it was desired to add health impacts, it was necessary to ensure that all exposure pathways for a given

scenario and medium were evaluated in a consistent manner with respect to representation of the individual and exposure duration. To ensure this consistency, some of the exposure conditions recommended in HSBRAM were modified slightly. All URF analyses were based on exposure of an adult. However, a "composite adult" was used for those exposure pathways for which HSBRAM recommends such an approach. These are pathways, for example soil ingestion, where child exposure parameters are more conservative than adult ones. The composite adult was evaluated using child parameters for 6 years and adult parameters for 24 years, giving a total exposure duration of 30 years. This approach was used for all contaminant types.

The industrial scenario was based on an adult worker exposed for 20 years. All other scenarios were based on a 30-year exposure duration.

The URFs involved normalization to a unit concentration of each contaminant in each of the five media. The units of normalization are shown in Table B4-7.

## *B4.1 Exposure Scenarios*

The four HSBRAM scenarios were used as the basis for the URF evaluations. Each of these scenarios was evaluated for five transport media: (1) soil defined per unit mass, (2) soil defined per unit area, (3) groundwater from wells, (4) surface water, and (5) air. These are the primary media for which contaminant concentrations are estimated or known for the grid cells in the geographic information system. Other media were identified in HSBRAM (biota and sediment) but were not specifically identified for representation in this EIS. Other media identified in HSBRAM (biota and sediment) were not specifically identified in this EIS analysis but were considered in the URF analysis when appropriate to the scenario and exposure pathways.

### *B4.1.1 Agricultural Scenario*

The Hanford Site could be used for agriculture under Unrestricted Future Land-Use Alternatives or, following a loss of institutional controls, under Restricted or Exclusive Future Land-Use Alternatives. The Columbia Basin and Yakima Valley currently have an extensive agricultural base. Agricultural operations near the Hanford Site include irrigated and dry land farming and livestock grazing. About one-third of the crop acreage is irrigated, one-third is in dry land production, and the remaining one-third is idle (Walton 1985).

The agricultural scenario is very similar to the residential scenario. The primary difference is that the agricultural scenario includes consumption of animal products (meat and milk) produced on the farm. The exposures are assumed to be continuous and include occasional water-related recreational activities. Pathways included in the agricultural scenario are presented in Table B4-3 and discussed in Section B4.2.2.1.

As described above, the standard HSBRAM uses both adult and child exposure parameters. Where child parameters are more conservative, the exposure duration is 6 years as a child and 24 years as an adult. Where the use of only adult parameters is conservative, the duration is 30 years as an adult. The agricultural scenario involved four primary media (soil, groundwater, surface water, and air) and five secondary media (dairy, game, fish, fruit, and vegetables). The URFs were calculated for soil concentrations. Within HSBRAM, sediment was considered a separate medium,

although the parameters associated with sediment are identical to soil. Sediment was not considered in the analysis. Game and fish were considered as separate media.

Dermal exposure from groundwater occurs only through showering (which includes personal bathing). Dermal exposure to surface water may occur through showering and swimming. Direct ingestion of surface water is not addressed unless the source of drinking water is the Columbia River.

### *B4.1.2 Residential Scenario*

The residential scenario is intended to represent potential exposures to an individual who may take up residence on the Hanford Site in the future. The exposures are described as occurring continuously throughout the year (except for surface water recreational activities). The pathways described in HSBRAM were included, plus a few other related pathways. It is assumed that the resident individual has the potential to be exposed to all the media. Exposure parameters were selected to represent continuous exposure by each pathway. Pathways included in the residential scenario are presented in Table B4-4 and discussed in Section B4.2.2.2. The residential scenario is identical to the agricultural scenario except that the resident does not consume meat and milk grown on the site.

### *B4.1.3 Industrial Scenario*

The industrial scenario is intended to represent potential exposures to workers in a commercial/industrial setting. Because the results of the analysis were to be applied to many locations on the Hanford Site, it was difficult to select a completely representative set of exposure pathways. Therefore, for the present analysis, all exposure pathways identified in HSBRAM have been included, plus other pathways that may be associated with an industrial setting. The scenario involves activities that are performed mainly indoors, but outdoor activities (e.g., soil contact) were also included. The scenario is not intended to represent exposure of remediation workers, and the industrial workers were assumed to wear no protective clothing. Pathways included in this scenario are presented in Table B4-5 and discussed in Section B4.2.2.3.

In this situation, individuals engaged in a commercial enterprise are exposed to contaminated soil, water, or air. Employees work at this location for 20 years. The company employs only adults. Earlier stages of human development are accounted for in the residential scenario. The worker is exposed to contaminated soil 146 days per year including, a small amount of incidental ingestion of contaminated soil each day. In addition, there is periodic contact with the skin, allowing for some absorption of contaminants through the skin. Radionuclides also produce external dose. A third way that hazardous materials in the soil enter the worker is through resuspension and inhalation of dust.

In the HSBRAM industrial scenario, workers consume contaminated water at the rate of 1 L/day (0.3 gal/day). The water may come from either ground or surface sources. For our analysis, we have assumed that groundwater is the source of drinking water. The workers drink this amount of water 250 days per year for 20 years. Some contaminants also volatilize, so the air effectively contains an assumed amount of pollutant per cubic meter of air. The assumed amounts differ for radionuclides and chemicals. There is also some absorption through the skin from a daily shower. An accumulated dose was calculated over 20 years from a constant average from all exposure pathways.

HSBRAM considers only adults for the industrial exposure scenario. External exposures were not analyzed for radionuclides in HSBRAM; however, we have chosen to incorporate dermal exposure for this EIS. For some actinides and other contaminant groups that are not readily taken up in the gastrointestinal tract, the greatest risk is through dermal exposure.

### *B4.1.4 Recreational Scenario*

The recreational scenario is intended to represent exposure to contaminants in the Columbia River. The exposure pathways presented in HSBRAM were included, plus other pathways that may be expected to occur with the defined activities. For example, recreational swimming is suggested in HSBRAM for dermal contact with surface water. This pathway was included in the present analysis, along with boating and shoreline activities (included in HSBRAM as exposure to sediment). The exposure pathways represent use of all media with exposure parameters selected to represent the occasional use of the water, as opposed to continuous use for residential exposures. Pathways included in this scenario are presented in Table B4-6 and discussed in Section B4.2.2.4.

The recreational scenario involves four primary media (soil, groundwater, surface water, and air) and one secondary medium (fish). Recreational activities include boating, swimming, hunting, and related shoreline activities. Both adults and children were included in the evaluation of pathway parameters within HSBRAM, using the composite adult described above, which uses six years of child exposure parameters when child parameters are more conservative. Exposure to contaminated soil, water, and air takes place 7 days/year for 30 years.

## *B4.2 Unit Risk Factor Generation*

This section presents the methods used in generating the URFs. Details of the analyses for each exposure scenario are provided.

### *B4.2.1 Methods for Unit Risk Factor Evaluation*

The URFs were calculated using the most current version of the MEPAS exposure assessment component. The general method for implementation is described in this section (Droppo et al. 1989).

The URFs were evaluated using equations and parameters for each exposure pathway. The equations are structured to take advantage of the SIF concept presented in HSBRAM (DOE-RL 1993a). The concept of SIFs involves structuring the intake equations for each exposure pathway in such a way that contaminant-independent parameters are separated from the contaminant-dependent parameters and the initial media concentrations. Each exposure pathway model can then be described as the product of three factors: a medium concentration, an SIF independent of the contaminant, and a factor composed of all contaminant-dependent parameters. As an example, the drinking water exposure pathway can be described as follows:

$$\text{Intake or Exposure} = C_{mi} PF_{mix} SIF_{smyx} \qquad (1)$$

where:

Intake = average daily intake of chemical contaminants (mg/kg/d) or total intake or exposure received over the exposure duration (pCi intake or hours of exposure)

$C_{mi}$ = concentration of contaminant i, in medium m (mg or pCi per unit quantity of medium L, kg, $m^3$, or $m^2$)

$PF_{mix}$ = contaminant-specific factor for medium m, contaminant i, and exposure pathway • (units specific to analysis)

$SIF_{smyx}$ = summary intake factor for scenario s, medium m, contaminant type y, and exposure pathway • (units specific to analysis).

The SIF values were evaluated for each toxicity type: noncarcinogenic chemicals (nc), carcinogenic chemicals (cc), and radionuclides (ra). The appropriate SIF was used for each contaminant for the exposure pathway of concern.

The MEPAS exposure assessment program allows the user to define SIF values for each exposure pathway. The contaminant-specific parameters are taken from the MEPAS database and combined with the SIF values and unit media concentrations to provide the URFs.

The following sections describe the methodology for calculating URFs. Section B4.2.1.1 identifies the methods used to estimate the health impacts from the intake or exposure to radionuclides evaluated by Equation (1). Section B4.2.1.2 provides similar information for chemicals. Section B4.2.2 defines the SIFs for each scenario. Section B4.2.3 identifies contaminant-specific parameters and analyses applied to each exposure pathway.

*B4.2.1.1 Radionuclide Unit Risk Factor Calculation.* The average daily intake and lifetime radiation doses were used to estimate the URFs for the health impact measure appropriate to the contaminant. The cancer incidence risk for radionuclides was evaluated as follows for inhalation exposure pathways:

$$URF_{ih} = Intake_{ih} SF_{ih} \tag{2}$$

and for ingestion exposure pathways,

$$URF_{ig} = Intake_{ig} SF_{ig} \tag{3}$$

where:

$URF_{ih}$ = unit risk factor for the inhalation pathway for radionuclide i (risk per unit medium concentration)

$URF_{ig}$ = unit risk factor for an ingestion pathway for radionuclide i (risk per unit medium concentration)

$Intake_{ih}$ = inhalation intake for radionuclide i for the inhalation pathway (pCi)

$Intake_{ig}$ = ingestion intake for radionuclide i for the ingestion pathway (pCi)

$SF_{ih}$ = inhalation slope factor for radionuclide i (risk/pCi)

$SF_{ig}$ = ingestion slope factor for radionuclide i (risk/pCi).

For exposure pathways involving external radiation exposure the URFs were calculated as follows:

$$URF_{ix} = Exposure_{ix} SFix \tag{4}$$

where:

$URF_{ix}$ = unit risk factor for an external radiation exposure pathway for radionuclide i (risk per unit medium concentration)

$Exposure_{ix}$ = exposure time for radionuclide i for the external radiation exposure pathway (hr)

$SF_{ix}$ = external exposure slope factor for radionuclide i (risk/hr per pCi/unit medium quantity).

The external slope factors provided in the Health Effects Assessment Summary Tables (EPA 1993) are for use with contaminated soil. For external exposure to air and water, slope factors were generated from radiation dose factors and the health effects conversion factor of $6.2 \times 10^{-4}$ lifetime cancer risk per rem. For example, the air immersion effective slope factor was evaluated as follows:

$$SF_{ia} = 6.2 \times 10^{-4} DF_{ia}$$

where:

$SF_{ia}$ = air immersion slope factor for radionuclide i (risk/hr per pCi/m$^3$)

$DF_{ia}$ = air immersion dose rate factor for radionuclide i (rem/hr per pCi/m$^3$)

$6.2 \times 10^{-4}$ = cancer incidence conversion factor (risk/rem).

*B4.2.1.2 Chemical Unit Risk Factor Calculation.* The intake parameter for chemical exposures is the average daily intake for a chemical by either ingestion or inhalation. For carcinogenic chemicals, the intake is the average over the lifetime of the individual (70 years); and for noncarcinogenic chemicals, this is the average over the exposure duration (20 years for the industrial scenario and 30 years for other scenarios).

The lifetime cancer incidence risk for chemical ingestion exposures was evaluated as follows:

$$URF_{ig} = Intake_{ig} SF_{ig}$$

where:

$URF_{ig}$ = unit risk factor for chemical carcinogen i from an ingestion exposure pathway g (risk/unit medium concentration)

$Intake_{ig}$ = average daily intake of chemical i from ingestion pathway g (mg/kg/d)

$SF_{ig}$ = ingestion slope factor for chemical i (risk per mg/kg/d)

The lifetime cancer incidence risk for inhalation was evaluated in a similar manner, as follows:

$$URF_{ih} = Intake_{ih}\ SF_{ih} \tag{8}$$

where:

$URF_{ih}$ = unit risk factor for chemical carcinogen i from an inhalation exposure pathway h (risk/unit medium concentration)

$Intake_{ih}$ = average daily intake of chemical i from inhalation pathway h (mg/kg/d)

$SF_{ih}$ = inhalation slope factor for chemical i (risk per mg/kg/d).

The health impact parameter for noncarcinogenic chemicals was the hazard index evaluated as follows for ingestion pathways:

$$URF_{ig} = Intake_{ig} / RfD_{ig} \tag{9}$$

where:

$URF_{ig}$ = unit risk factor for chemical noncarcinogen i from an ingestion exposure pathway g (hazard index/unit medium concentration)

$Intake_{ig}$ = average daily intake of chemical i from ingestion pathway g (mg/kg/d)

$RfD_{ig}$ = ingestion reference dose for chemical i (mg/kg/d).

The hazard index for inhalation was evaluated in a similar manner, as follows:

$$URF_{ih} = Intake_{ih} / RfD_{ih}$$

where:

$URF_{ih}$ = unit risk factor for chemical noncarcinogen i from an inhalation exposure pathway h (hazard index/unit medium concentration)

$Intake_{ih}$ = average daily intake of chemical i from inhalation pathway h (mg/kg/d)

$RfD_{ih}$ = inhalation reference dose for chemical i (mg/kg/d).

Dermal exposures were evaluated as equivalent to ingestion exposures with correction for the fractional absorption of the chemical in the gastrointestinal tract. This correction is indicated in Section B4.2.3 in the definition of the contaminant-specific parameters.

Values for radionuclide and chemical slope factors, radiation dose factors, and cancer incidence conversion factors used in these analyses were taken from *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

### *B4.2.2 Summary Intake Factor Evaluation*

This section discusses SIFs for each exposure scenario. As explained in Section B4.2.1, the SIFs represent contaminant-independent parameters.

*B4.2.2.1 Agricultural.* The agricultural exposure scenario was based on a 30-year exposure duration. The pathways evaluated for soil per unit mass were soil ingestion, soil dermal absorption, soil resuspension and inhalation, and external exposure to ground contamination. The exposure parameters are listed in Table B4-8, and the SIF values are provided in Table B4-9.

Contamination deposited onto soil by atmospheric transport and deposition was modeled as a concentration per unit area of soil. The pathways evaluated were the same as those for soil per unit mass plus ingestion of fruit, vegetables, meat, and milk. The exposure parameters are listed in Table B4-10, and the SIF values are provided in Table B4-11.

Pathways evaluated for air transport were inhalation, external exposure from immersion in the cloud, and ingestion of fruit, vegetables, meat, and milk. The exposure parameters are listed in Table B4-12, and the SIF values are provided in Table B4-13.

Pathways evaluated for groundwater were drinking water; showering (dermal absorption and ingestion); indoor inhalation of volatile compounds; and ingestion of fruit, vegetables, meat, and milk. The exposure parameters are listed in Table B4-14, and the SIF values are provided in Table B4-15.

Pathways evaluated for surface water were drinking water; showering (dermal absorption and ingestion); indoor inhalation of volatile compounds; exposure related to aquatic recreation (boating, swimming, and shoreline activities); ingestion of fish; and ingestion of fruit, vegetables, meat, and milk. The exposure parameters are listed in Table B4-16, and the SIF values are provided in Table B4-17.

*B4.2.2.2 Residential.* The residential exposure scenario was based on a 30-year exposure duration. The exposure parameters were identical to those for the agricultural scenario, except that the residential individual was not assumed to consume meat and milk produced on the Site. Ingestion of fruit and vegetables grown in a home garden was included, however. The exposure parameters for each medium are provided in Tables B4-8, B4-10, B4-12, B4-14, and B4-16. The corresponding SIF values for this scenario are provided in Tables B4-18 through B4-22.

*B4.2.2.3 Industrial.* The industrial exposure scenario was based on a 20-year exposure duration, for a worker with a body weight of 70 kg (154 lb). The exposure parameters for each medium, which differ from the agricultural and residential parameters by the reduced time workers would spend on the Hanford Site, are provided in Tables B4-8, B4-10, B4-12, B4-14, and B4-16. The corresponding SIF values for this scenario are provided in Tables B4-23 through B4-26.

*B4.2.2.4 Recreational.* The recreational exposure scenario was based on a 30-year exposure duration, 6 years as a child and 24 years as an adult. The exposure parameters for each medium, which differ from the other scenario parameters by the reduced time recreational users would spend on the Hanford Site, are provided in Tables B4-8, B4-10, B4-12, B4-14, and B4-16. The corresponding SIF values for this scenario are provided in Tables B4-27 through B4-31.

### *B4.2.3 Contaminant-Specific Parameters*

The calculation of URFs requires multiplication of the SIF by a contaminant-specific factor as indicated in Equation (1). This section discusses the contaminant-specific factors required for each exposure pathway. The contaminant-specific parameters were evaluated in the same way for all scenarios. Therefore, the exposure pathways are discussed independently of the scenarios.

*B4.2.3.1 Drinking Water Ingestion.* The drinking water ingestion pathway has two contaminant-specific considerations: the water purification factor and decay during transport from the water pumping station to the domestic-use location. The URF calculations did not use a water purification factor (i.e., the water concentration was not reduced due to treatment). The transport time was set to 0.5 day for drinking water and all domestic use analyses. The decay was evaluated as an exponential reduction in concentration during the transport period based on the half-time for the contaminant in confined water systems (no volatilization loss). For radionuclides the half-time is the radiological half-life.

*B4.2.3.2 Dermal Contact - Shower.* This pathway involves dermal contact with water while showering with domestic water. The water concentration was evaluated as described for drinking water in Section B4.2.3.1. The daily intake estimation required the skin permeability constant (cm/hr) to estimate the transfer from the skin surface to the blood. In addition, it was necessary to divide the intake estimate by the gastrointestinal absorption factor to convert the dermal intake to an equivalent ingestion intake. The permeability constant and the gastrointestinal absorption factor are described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.3 Water Ingestion - Shower.* This pathway involves the inadvertent ingestion of water while showering with domestic water. The water concentration was evaluated as described for drinking water in Section B4.2.3.1. There are no other contaminant-specific parameters or considerations.

*B4.2.3.4 Leafy Vegetable Ingestion.* This exposure pathway is used to represent the ingestion of home grown vegetables. The contaminant-specific factor includes estimation of the vegetable contaminant concentration from the medium of concern. This medium may be air, soil (from air deposition), or irrigation water (groundwater or surface water). The methods for estimation of plant concentration from the contaminated media are presented in *The Remedial Action Priority System (RAPS): Mathematical Formulations* (Whelan et al. 1987b) and *Supplemental Formulations: The Multimedia Environmental Contaminant Assessment System (MEPAS)* (Droppo et al. 1989). The contaminant-specific parameters involved in this analysis are the soil-to-plant concentration ratio and the atmospheric deposition velocity. Values for these parameters are presented in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994) for each contaminant included in the analyses.

*B4.2.3.5 Other Vegetable Ingestion.* The "other vegetable" pathway represents vegetable and fruit crops for which the edible portion is not associated with the leaves of the plant. This pathway is used to represent the HSBRAM fruit ingestion exposure pathway. As for the leafy vegetable ingestion pathway, the methods for estimation of plant concentration from the contaminated media are presented in the Remedial Action Priority System (RAPS) (Whelan et al. 1987b) and MEPAS (Droppo et al. 1989). The contaminant-specific parameters are the same as for the leafy vegetable pathway and are described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.6 Meat Ingestion.* Evaluation of URFs for the meat pathway requires estimation of contaminant concentrations in meat from animal ingestion of contaminated feeds and water. The contaminant-specific parameters are the soil-to-plant (animal feed) concentration ratio, the animal feed-to-meat transfer factor, and the atmospheric deposition velocity. These parameters are described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.7 Milk Ingestion.* The milk ingestion pathway is used to represent the HSBRAM dairy exposure pathway. The analysis requires estimation of contaminant concentrations in cow milk, and is performed in a similar manner to the meat pathway analysis presented in RAPS (Whelan et al. 1987b) and MEPAS (Droppo et al. 1989). The contaminant-specific parameters are the soil-to-plant (animal feed) concentration ratio, the animal feed-to-milk transfer factor, and the atmospheric deposition velocity. These parameters are described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.8 Fish Ingestion.* The fish ingestion pathway requires estimation of the concentration of contaminants in edible portions of fish, based on the concentration in surface water. This uses the fish bioaccumulation factor, which is the ratio of contaminant concentration in fish to that in the water. This parameter is described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.9 Water Ingestion - Swimming.* Inadvertent ingestion of water while swimming involves direct ingestion of surface water. No contaminant-specific parameters are required.

*B4.2.3.10 Dermal Contact - Swimming.* Direct contact with surface water while swimming can result in absorption of contaminants through the skin. The absorption estimate requires a value for the skin permeability constant for each contaminant. In addition, it is necessary to divide the intake

estimate by the gastrointestinal absorption factor to convert the dermal intake to an equivalent ingestion intake. The permeability constant and the gastrointestinal absorption factors are described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.11 Dermal Contact - Shoreline.* The shoreline exposure pathways all require estimation of the contaminant concentration in sediment based on the concentration in surface water. This transfer is estimated using the model of Soldat as described in RAPS (Whelan et al. 1987b). This model estimates the average sediment concentration over a user defined exposure duration. The transfer of contaminants from the sediment to the individual also requires a value for the skin absorption fraction for the contaminant. The skin absorption fraction is the fraction of contaminant on skin that is absorbed into the blood. This parameter is described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.12 Ingestion - Shoreline Sediment.* The inadvertent ingestion of sediment while participating in shoreline recreational activities requires an estimate of the shoreline sediment concentration. This is evaluated as described in Section B4.2.3.11. No other contaminant-specific considerations are required.

*B4.2.3.13 Ingestion - Soil.* The soil concentration is defined at the start of the exposure duration. It is necessary to account for the time variation of soil concentration because of losses by volatilization and radioactive decay. The volatilization loss is estimated using the environmental half-time parameter for soil. The time integral of soil concentration is evaluated over the exposure duration to determine the average soil concentration. The environmental half-time is described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.14 Dermal Contact - Soil.* Contaminant-specific considerations for dermal absorption from soil involve the skin absorption fraction and the same considerations for loss by volatilization and radioactive decay as described in Section B4.2.3.13. The skin absorption fraction gives the fraction of contaminant on the skin that is absorbed into the blood. The skin absorption fraction and the environmental half-time are described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.15 Indoor Inhalation - Volatile Contaminants.* There are no contaminant-specific considerations for the inhalation pathway, other than the volatilization factor, which is included in the SIFs. The analysis does, however, involve review of the Henry's law constant and molecular weight to determine if the contaminant should be considered volatile. A contaminant is considered volatile if the Henry's Law constant is greater than $1 \times 10^{-5}$ (atom $m^3$/g-mole) and the molecular weight is less than 200. Radon-222 is the only radionuclide considered to be volatile. Values for the Henry's Law constant and molecular weights are given for organic compounds in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.16 Air Inhalation.* There are no contaminant-specific considerations for inhalation of air.

*B4.2.3.17 Soil Resuspension Inhalation.* The inhalation of resuspended soil involves estimation of the average soil concentration present over the exposure duration. This analysis involves the same

considerations for loss by volatilization and radioactive decay as described in Section B4.2.3.13. There are no other contaminant-specific considerations for this pathway. The environmental half-time is described in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*B4.2.3.18 External Exposure - Swimming*. There are no contaminant-specific considerations for external exposure to radionuclides while swimming. The radiation dose factors are included in the external exposure slope factors.

*B4.2.3.19 External Exposure - Boating*. There are no contaminant-specific considerations for external exposure to radionuclides while boating. The radiation dose factors are included in the external exposure slope factors.

*B4.2.3.20 External Exposure - Shoreline*. This pathway requires an estimate of the average radionuclide concentration in shoreline sediment over the exposure duration, as with the other pathways involving shoreline sediment, see Sections B4.2.3.11 and B4.2.3.12. There are no other contaminant-specific considerations for external exposure to radionuclides on the shoreline. The radiation dose factors are included in the external exposure slope factors.

*B4.2.3.21 External Exposure - Soil*. This pathway requires an estimate of the average concentration in soil over the exposure duration, as described in Section B4.2.3.13. There are no other contaminant-specific considerations for external exposure to radionuclides in soil. The radiation dose factors are included in the external exposure slope factors.

*B4.2.3.22 External Exposure - Air*. There are no contaminant-specific considerations for external exposure to radionuclides in air. The radiation dose factors are included in the external exposure slope factors.

## *B4.3 Unit Risk Factor Results*

Results of the URF analyses are summarized in this section. The summary tables present the URF values for each scenario, medium, and contaminant summed over exposure pathways. Tables B4-32 through B4-34 provide the agricultural scenario URFs, Tables B4-35 through B4-37 provide the residential scenario URFs, Tables B4-38 through B4-40 provide the industrial scenario URFs, and Tables B4-41 through B4-43 provide the recreational scenario URFs. Three table are provided for each scenario, one for each of the three contaminant types: carcinogenic chemicals, noncarcinogenic chemicals, and radionuclides.

The units for the URFs are health impacts normalized to unit medium contaminant concentration. The health impact for radionuclides and carcinogenic chemicals is lifetime cancer incidence. For noncarcinogenic chemicals the impact is the hazard index (ratio of average daily intake to reference dose). The contaminant to media concentration units are listed in Table B4-7.

The URFs for individual exposure pathways are provided in *Evaluation of Unit Risk Factors in Support of the Hanford Remedial Action Environmental Impact Statement Graphical Information System* (Strenge and Chamberlain 1994).

*Table B4-1. Chemicals Included in URF Analyses.*

| No. | Chemical Name | MEPAS CAS |
|---|---|---|
| 1. | Aluminum fluoride | 7784181 |
| 2. | Aluminum nitrate | 13473900 |
| 3. | Aluminum (ionic) | 7429905 |
| 4. | Ammonium carbonate | 506876 |
| 5. | Ammonium nitrate | 6484522 |
| 6. | Beryllium (ionic) | 7440417 |
| 7. | Butyl phosphates | 12788931 |
| 8. | Cadmium (ionic) | 7440439 |
| 9. | Calcium carbonate | 471341 |
| 10. | Calcium (ionic) | 7440702 |
| 11. | Calcium nitrate | 10124375 |
| 12. | Carbon tetrachloride | 56235 |
| 13. | Chromium VI (ionic) | 7440473 |
| 14. | Copper sulfate | 7758987 |
| 15. | Copper (ionic) | 7440508 |
| 16. | Dibutyl phosphonate | 1809194 |
| 17. | Ferric nitrate | 10421484 |
| 18. | Ferrocyanide (ionic) | 13943583 |
| 19. | Ferrous nitrate | 13520688 |
| 20. | Fluoride (ionic) | 7782414 |
| 21. | Iron (as ferric ion) | 15438310 |
| 22. | Lead (ionic) | 7439921 |
| 23. | Magnesium (ionic) | 7786303 |
| 24. | Magnesium nitrate | 10377603 |
| 25. | Mercury (ionic) | 7439976 |
| 26. | Methyl isobutyl ketone | 108101 |
| 27. | Nickel (ionic) | 7440020 |
| 28. | Nitrate | 14797558 |
| 29. | Nitric acid | 7697372 |
| 30. | Nitrite | NITRITE |
| 31. | Oxalate (ionic) | 144627 |
| 32. | Phosphate (ionic) | 7601549 |
| 33. | Potassium (ionic) | 7447407 |
| 34. | Potassium borate | 7632044 |
| 35. | Silver (ionic) | 7440224 |
| 36. | Sodium (ionic) | 7647145 |
| 37. | Sodium aluminate | 1302427 |
| 38. | Sodium dichromate | 10588019 |
| 39. | Sodium oxalate | 62760 |
| 40. | Sodium sulfamate | 5329146 |
| 41. | Sulfate (ionic) | 12808798 |
| 42. | Sulfuric acid | 7664939 |
| 43. | Tributyl phosphate | 126738 |
| 44. | Tributyl phosphonate | 78466 |
| 45. | Trichloroethylene | 79016 |
| 46. | Uranium (ionic) | 7440611 |
| 47. | Zinc (ionic) | 764685 |

*Table B4-2. Radionuclides Included in URF Analyses.*

| No. | Radionuclide Name | No. | Radionuclide Name | No. | Radionuclide Name |
|---|---|---|---|---|---|
| 1. | Ac225 | 35. | I129 | 70. | Sb124 |
| 2. | Ac227 | 36. | K40 | 71. | Sc46 |
| 3. | Ag110m | 37. | Kr85 | 72. | Se75 |
| 4. | Am241 | 38. | Mn54 | 73. | Se79 |
| 5. | Am243 | 39. | Mo93 | 74. | Sm147 |
| 6. | Au195 | 40. | Na22 | 75. | Sm151 |
| 7. | Ba133 | 41. | Nb93m | 76. | Sn113 |
| 8. | Be10 | 42. | Nb94 | 77. | Sn123 |
| 9. | Be7 | 43. | Nb95 | 78. | Sr85 |
| 10. | Bi210 | 44. | Ni59 | 79. | Sr90 |
| 11. | C14 | 45. | Ni63 | 80. | Ta182 |
| 12. | Ca45 | 46. | Np237 | 81. | Tc99 |
| 13. | Cd109 | 47. | Np239 | 82. | Th227 |
| 14. | Ce144 | 48. | Pa231 | 83. | Th228 |
| 15. | Cf250 | 50. | Pa233 | 84. | Th229 |
| 16. | Cf252 | 52. | Pb21 | 85. | Th230 |
| 17. | Cl36 | 53. | Po210 | 86. | Th231 |
| 18. | Cm243 | 54. | Pu238 | 87. | Th232 |
| 19. | Cm244 | 55. | Pu239 | 88. | Th234 |
| 20. | Cm245 | 56. | Pu240 | 89. | Tl204 |
| 21. | Cm246 | 57. | Pu241 | 90. | Tm170 |
| 22. | Cm248 | 58. | Pu242 | 91. | U232 |
| 23. | Co57 | 59. | Ra223 | 92. | U233 |
| 24. | Co58 | 60. | Ra224 | 93. | U234 |
| 25. | Co60 | 61. | Ra225 | 94. | U235 |
| 26. | Cs134 | 62. | Ra226 | 95. | U236 |
| 27. | Cs137 | 63. | Ra228 | 96. | U238 |
| 28. | Es254 | 64. | Re187 | 97. | V49 |
| 29. | Eu152 | 65. | Rn222 | 98. | Y88 |
| 30. | Eu154 | 66. | Ru103 | 99. | Y90 |
| 31. | Eu155 | 67. | Ru106 | 100. | Zn65 |
| 32. | Fe55 | 68. | S35 | 101. | Zr95 |
| 33. | Ge68 | 69. | Sb122 | | |
| 34. | H3 | | | | |

*Table B4-3. Exposure Pathways Included in Agricultural Scenario URF Analyses.*

| Medium | Exposure Pathways | Chemicals | Radionuclides |
|---|---|---|---|
| Soil (mass) | Soil ingestion | Yes | Yes |
| | Soil dermal absorption | Yes | Yes |
| | Soil resuspension inhalation | Yes | Yes |
| | External ground dose | No | Yes |
| Soil (area) | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Meat ingestion | Yes | Yes |
| | Milk ingestion | Yes | Yes |
| | Soil dermal absorption | Yes | Yes |
| | Soil ingestion | Yes | Yes |
| | Soil resuspension | Yes | Yes |
| | External ground dose | No | Yes |
| Air | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Meat ingestion | Yes | Yes |
| | Milk ingestion | Yes | Yes |
| | Inhalation | Yes | Yes |
| | External air dose | No | Yes |
| Groundwater | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Meat ingestion | Yes | Yes |
| | Milk ingestion | Yes | Yes |
| | Indoor inhalation of VOCs | Yes | Rn222 only |
| Surface water | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Meat ingestion | Yes | Yes |
| | Milk ingestion | Yes | Yes |
| | Fish ingestion | Yes | Yes |
| | Swimming water ingestion | Yes | Yes |
| | Swimming dermal absorption | Yes | Yes |
| | Swimming external dose | Yes | No |
| | Shoreline dermal absorption | Yes | Yes |
| | Shoreline sediment ingestion | Yes | Yes |
| | Shoreline external dose | Yes | No |
| | Boating external dose | Yes | No |
| | Indoor inhalation of VOCs | Yes | Rn222 only |

*Table B4-4. Exposure Pathways Included in Residential Scenario in URF Analyses.*

| Medium | Exposure Pathways | Chemicals | Radionuclides |
|---|---|---|---|
| Soil (mass) | Soil ingestion | Yes | Yes |
| | Soil dermal absorption | Yes | Yes |
| | Soil resuspension inhalation | Yes | Yes |
| | External ground dose | No | Yes |
| Soil (area) | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Soil dermal absorption | Yes | Yes |
| | Soil ingestion | Yes | Yes |
| | Soil resuspension | Yes | Yes |
| | External ground dose | No | Yes |
| Air | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Inhalation | Yes | Yes |
| | External air dose | No | Yes |
| Groundwater | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Indoor inhalation of VOCs | Yes | Rn-222 only |
| Surface water | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Fruit ingestion | Yes | Yes |
| | Vegetable ingestion | Yes | Yes |
| | Fish ingestion | Yes | Yes |
| | Swimming water ingestion | Yes | Yes |
| | Swimming dermal absorption | Yes | Yes |
| | Swimming external dose | No | Yes |
| | Shoreline dermal absorption | Yes | Yes |
| | Shoreline sediment ingestion | Yes | Yes |
| | Shoreline external dose | No | Yes |
| | Boating external dose | No | Yes |
| | Indoor inhalation of VOCs | Yes | Rn222 only |

*Table B4-5. Exposure Pathways Included in Industrial Scenario URF Analysis.*

| Medium | Exposure Pathways | Chemicals | Radionuclides |
|---|---|---|---|
| Soil (mass) | Soil ingestion | Yes | Yes |
| | Soil dermal absorption | Yes | Yes |
| | Soil resuspension inhalation | Yes | Yes |
| | External ground dose | No | Yes |
| Soil (area) | Soil ingestion | Yes | Yes |
| | Soil dermal contact | Yes | Yes |
| | Soil resuspension | Yes | Yes |
| | External exposure | No | Yes |
| Air | Inhalation | Yes | Yes |
| | External exposure | No | Yes |
| Groundwater | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Indoor inhalation of VOCs | Yes | Rn222 only |
| Surface Water | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Indoor inhalation of VOCs | Yes | Rn222 only |

*Table B4-6. Exposure Pathways Included in Recreational Scenario URF Analyses.*

| Medium | Exposure Pathways | Chemicals | Radionuclides |
|---|---|---|---|
| Soil (mass) | Soil ingestion | Yes | Yes |
| | Soil dermal absorption | Yes | Yes |
| | Soil resuspension inhalation | Yes | Yes |
| | External ground dose | No | Yes |
| Soil (area) | Soil ingestion | Yes | Yes |
| | Soil dermal contact | Yes | Yes |
| | Soil resuspension | Yes | Yes |
| | External ground dose | No | Yes |
| Air | Inhalation | Yes | Yes |
| | External air dose | No | Air |
| Groundwater | Drinking water ingestion | Yes | Yes |
| | Shower dermal absorption | Yes | Yes |
| | Shower water ingestion | Yes | Yes |
| | Indoor inhalation of VOCs | Yes | Rn222 |
| Surface water | Drinking water ingestion | Yes | Yes |
| | Fish ingestion | Yes | Yes |
| | Swimming water ingestion | Yes | Yes |
| | Swimming dermal absorption | Yes | Yes |
| | Swimming external dose | Yes | No |
| | Shoreline dermal absorption | Yes | Yes |
| | Shoreline sediment ingestion | Yes | Yes |
| | Shoreline external dose | No | Yes |
| | Boating external dose | No | Yes |

*Table B4-7. Media Normalization Units.*

| Medium | Chemicals | Radionuclides |
|---|---|---|
| Soil (mass) | mg/kg | pCi/kg |
| Soil (area) | $mg/m^2$ | $pCi/m^2$ |
| Air | $mg/m^3$ | $pCi/m^3$ |
| Groundwater | mg/L | pCi/L |
| Surface water | mg/L | pCi/L |

*Table B4-8. Exposure Parameters for Contaminants with Concentrations Estimated per Unit Soil Mass.*

| Parameter | Value | | |
|---|---|---|---|
| | Agricultural/ Residential | Industrial | Recreational |
| Ingestion rate (child) | 200 mg/d | N/A | 200 mg/d |
| Ingestion rate (adult) | 100 mg/d | 50 mg/d | 100 mg/d |
| Dermal contact rate | 1/d | 1/d | 1/d |
| Skin area (child) | 2,500 $cm^2$ | N/A | 2,500 $cm^2$ |
| Skin area (adult) | 5,000 $cm^2$ | 5,000 $cm^2$ | 5,000 $cm^2$ |
| Soil air conc. | 50 $\mu g/m^3$ | 50 $\mu g/m^3$ | 50 $\mu g/cm^3$ |
| Inhalation rate | 20 $m^3/d$ | 20 $m^3/d$ | 20 $m^3/d$ |
| Exposure duration | 30 y | 20 y | 30 y |
| Daily exposure freq. | 24 h/d | 8 h/d | 8 h/d |
| Shielding factor | 0.8 | 0.8 | 0.8 |
| Annual exposure frequency (except dermal) | 365 d/y | 146 d/y | 7 d/y |
| Annual exposure frequency (dermal) | 180 d/y | N/A | 7 d/y |
| Annual exposure frequency (inhalation) | 365 d/y | 250 d/y | 7 d/y |
| Soil adherence factor | 0.2 $mg/cm^2$ | 0.2 $mg/cm^2$ | 0.2 $mg/cm^2$ |

*Table B4-9. Agricultural Scenario Summary Intake Factors: Soil (mass).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil ingestion | NC | 3.64E-6 | kg/(kg d) |
| | CC | 1.56E-6 | kg/(kg d) |
| | RA | 1.32E+0 | kg |
| Soil dermal absorption | NC | 8.71E-6 | kg/(kg d) |
| | CC | 3.73E-6 | kg/(kg d) |
| | RA | 4.86E+0 | kg |
| Soil resuspension | NC | 1.43E-8 | kg/(kg d) |
| | CC | 6.12E-9 | kg/(kg d) |
| | RA | 1.10E-2 | kg |
| Soil external | RA | 2.10E+5 | hr |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-10. Exposure Parameters for Contaminants with Concentrations Estimated per Unit Soil Area.*

| Parameter | Value | | |
|---|---|---|---|
| | Agricultural/ Residential | Industrial | Recreational |
| Ingestion rate (child) | 200 mg/d | N/A | 200 mg/d |
| Ingestion rate (adult) | 100 mg/d | 50 mg/d | 100 mg/d |
| Dermal contact rate | 1/d | 1/d | 1/d |
| Skin area (child) | 2,500 $cm^2$ | N/A | 2,500 $cm^2$ |
| Skin area (adult) | 5,000 $cm^2$ | 5,000 $cm^2$ | 5,000 $cm^2$ |
| Soil air conc. | 50 $\mu g/m^3$ | 50 $\mu g/m^3$ | 50 $\mu g/cm^3$ |
| Inhalation rate | 20 $m^3/d$ | 20 $m^3/d$ | 20 $m^3/d$ |
| Exposure duration | 30 y | 20 y | 30 y |
| Daily exposure freq. | 24 h/d | 8 h/d | 8 h/d |
| Shielding factor | 0.8 | 0.8 | 0.8 |
| Annual exposure frequency (except dermal) | 365 d/y | 146 d/y | 7 d/y |
| Annual exposure frequency (dermal) | 180 d/y | N/A | 7 d/y |
| Annual exposure frequency (inhalation) | 365 d/y | 250 d/y | 7 d/y |
| Soil adherence factor | 0.2 $mg/cm^2$ | 0.2 $mg/cm^2$ | 0.2 $mg/cm^2$ |
| Leafy vegetable ingestion rate | 80 g/d | N/A | N/A |
| Fruit ingestion rate | 42 g/d | N/A | N/A |

*Table B4-11. Agricultural Scenario Summary Intake Factors: Soil (area).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil Ingestion | NC | 6.07E-8 | $m^2$/(kg d) |
| | CC | 2.60E-8 | $m^2$/(kg d) |
| | RA | 2.19E-2 | $m^2$ |
| Soil Dermal | NC | 1.45E-7 | $m^2$ ev/(kg d) |
| | CC | 6.22E-8 | $m^2$ ev/(kg d) |
| | RA | 8.10E-2 | $m^2$ ev |
| Soil Resuspension | NC | 2.38E-10 | $m^2$/(kg d) |
| | CC | 1.02E-10 | $m^2$/(kg d) |
| Vegetable ingestion | NC | 1.83E-4 | $m^2$ |
| | RA | 1.14E-3 | kg/(kg d) |
| | CC | 4.90E-4 | kg/(kg d) |
| | RA | 8.77E+2 | kg |
| Fruit ingestion | NC | 6.00E-4 | kg/(kg d) |
| | CC | 2.57E-4 | kg/(kg d) |
| | RA | 4.60E+2 | kg |
| Meat ingestion | NC | 1.07E-3 | kg/(kg d) |
| | CC | 4.59E-4 | kg/(kg d) |
| | RA | 8.22E+2 | kg |
| Milk ingestion | NC | 4.29E-3 | L/(kg d) |
| | CC | 1.84E-3 | L/(kg d) |
| | RA | 3.29E+3 | L |
| Soil External | RA | 2.10E+5 | $Z_{ii}$ |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-12. Exposure Parameters for Contaminants with Concentrations Estimated per Unit Air Volume.*

| Parameter | Value | | |
|---|---|---|---|
| | Agricultural/ Residential | Industrial | Recreational |
| Inhalation rate | 20 $m^3$/d | 20 $m^3$/d | 20 $m^3$/d |
| Exposure duration | 30 y | 20 y | 30 y |
| Daily exposure freq. | 24 h/d | 8 h/d | 24 h/d |
| Annual exposure frequency (inhalation) | 365 d/y | 250 d/y | 7 d/y |
| Annual exposure frequency (dermal) | 180 d/y | 146 d/y | N/A |
| Leafy vegetable ingestion rate | 80 g/d | N/A | N/A |
| Fruit ingestion rate | 42 g/d | N/A | N/A |
| Meat ingestion rate | 75 g/d | N/A | N/A |
| Milk ingestion rate | 300 g/d | N/A | N/A |

*Table B4-13. Agricultural Scenario Summary Intake Factors: Air.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Inhalation | NC | 2.86E-1 | $m^3$/(kg d) |
| | CC | 1.22E-1 | $m^3$/(kg d) |
| | RA | 2.19E+5 | $m^3$ |
| Air external dose | RA | 2.63E+5 | hr |
| Vegetable ingestion | NC | 1.14E-3 | kg/(kg d) |
| | CC | 4.90E-4 | kg/(kg d) |
| | RA | 8.77E+2 | kg |
| Fruit ingestion | NC | 6.00E-4 | kg/(kg d) |
| | CC | 2.57E-4 | kg/(kg d) |
| | RA | 4.60E+2 | kg |
| Meat ingestion | NC | 1.07E-3 | kg/(kg d) |
| | CC | 4.59E-4 | kg/(kg d) |
| | RA | 8.22E+2 | kg |
| Milk ingestion | NC | 4.29E-3 | L/(kg d) |
| | CC | 1.84E-3 | L/(kg d) |
| | RA | 3.29E+3 | L |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-14. Exposure Parameters for Contaminants with Concentrations Estimated per Unit Groundwater Volume.*

| Parameter | Value | | |
|---|---|---|---|
| | Agricultural/ Residential | Industrial | Recreational |
| Inhalation rate | 15 $m^3$/d | 20 $m^3$/d | 20 $m^3$/d |
| Exposure duration | 30 y | 20 y | 30 y |
| Annual exposure frequency | 365 d/y | 250 d/y | 7 d/y |
| Leafy vegetable ingestion rate | 80 g/d | N/A | N/A |
| Fruit ingestion rate | 42 g/d | N/A | N/A |
| Meat ingestion rate | 75 g/d | N/A | N/A |
| Milk ingestion rate | 300 g/d | N/A | N/A |
| Water ingestion rate | 2 L/d | 1 L/d | 2 L/d |
| Shower frequency | 1/d | 1/d | 1/d |
| Shower duration | 10 min | 10 min | 10 min |
| Indoor air volatilization factor (chemicals) | 0.5 | 0.5 | 0.5 |
| Indoor air volatilization factor (Radon-222) | 0.1 | 0.1 | 0.1 |
| Skin area | 20,000 $cm^2$ | 20,000 $cm^2$ | 20,000 $cm^2$ |
| Water ingestion during showering | 0.01 L/shower | 0.01 L/shower | 0.01 L/shower |

*Table B4-15. Agricultural Scenario Summary Intake Factors: Groundwater.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Water ingestion | NC | 2.86E2 | L/(kg d) |
| | CC | 1.22E-2 | L/(kg d) |
| | RA | 2.19E+4 | L |
| Water dermal absorption | NC | 4.86E-2 | L h/(kg d cm) |
| | CC | 2.08E-2 | L h/(kg d cm) |
| | RA | 3.73E+4 | L h/cm |
| Shower water ingestion | NC | 1.46E-4 | L/(kg d) |
| | CC | 6.24E-5 | L/(kg d) |
| | RA | 1.12E+2 | L |
| Indoor inhalation | NC | 1.07E-1 | L/(kg d) |
| | CC | 4.59E-2 | L/(kg d) |
| | RA | 1.64E+4 | L |
| Vegetable ingestion | NC | 1.14E-3 | kg/(kg d) |
| | CC | 4.90E-4 | kg/(kg d) |
| | RA | 8.77E+2 | kg |
| Fruit ingestion | NC | 6.00E-4 | kg/(kg d) |
| | CC | 2.57E-4 | kg/(kg d) |
| | RA | 4.60E+2 | kg |
| Meat ingestion | NC | 1.07E-3 | kg/(kg d) |
| | CC | 4.59E-4 | kg/(kg d) |
| | RA | 8.22E+2 | kg |
| Milk ingestion | NC | 4.29E-3 | L/(kg d) |
| | CC | 1.84E-3 | L/(kg d) |
| | RA | 3.29E+3 | L |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-16. Exposure Parameters for Contaminants with Concentrations Estimated per Unit Surface Water Volume.*

| Parameter | Value | | |
|---|---|---|---|
| | Agricultural/ Residential | Industrial | Recreational |
| Inhalation rate | 15 $m^3$/d | 20 $m^3$/d | N/A |
| Exposure duration | 30 y | 20 y | 30 y |
| Annual exposure frequency (except recreation) | 365 d/y | 250 d/y | 7 d/y |
| Annual exposure frequency (recreation) | 7 d/y | N/A | 7 d/y |
| Daily exposure frequency | 8 h/d | N/A | 8 h/d |
| Leafy vegetable ingestion rate | 80 g/d | N/A | N/A |
| Fruit ingestion rate | 42 g/d | N/A | N/A |
| Fish ingestion rate | 27 g/d | N/A | 27 g/d |
| Water ingestion rate | 2 L/d | 1 L/d | 2 L/d |
| Shower frequency | 1/d | 1/d | 1/d |
| Shower duration | 10 min | 10 min | 10 min |
| Indoor air volatilization factor (chemicals) | 0.5 | 0.5 | 0.5 |
| Indoor air volatilization factor (Radon-222) | 0.1 | 0.1 | 0.1 |
| Skin area (swimming) | 20,000 $cm^2$ | N/A | 20,000 $cm^2$ |
| Skin area (sediment, child) | 2,500 $cm^2$ | N/A | 2,500 $cm^2$ |
| Skin area (sediment, adult) | 5,000 $cm^2$ | N/A | 5,000 $cm^2$ |
| Water ingestion during showering | 0.01 L/shower | 0.01 L/shower | 0.01 L/shower |
| Sediment ingestion rate (child) | 200 mg/d | N/A | 200 mg/d |
| Sediment ingestion rate (adult) | 100 mg/d | N/A | 100 mg/d |

*Table B4-17. Agricultural Scenario Summary Intake Factor: Surface Water.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Water ingestion | NC | 2.86E-2 | L/(kg d) |
| | CC | 1.22E-2 | L/(kg d) |
| | RA | 2.19E+4 | L |
| Water dermal absorption | NC | 4.86E-2 | L h/(kg d cm) |
| | CC | 2.08E-2 | L h/(kg d cm) |
| | RA | 3.73E+4 | L h/cm |
| | NC | 1.46E-4 | L/(kg d) |
| Shower water ingestion | CC | 6.24E-5 | L/(kg d) |
| | RA | 1.12E+2 | L |
| Indoor inhalation | NC | 1.07E-1 | L/(kg d) |
| | CC | 4.59E-2 | L/(kg d) |
| | RA | 1.64E+4 | L |
| Fish ingestion | NC | 3.86E-4 | L/(kg d) |
| | CC | 1.65E-4 | L/(kg d) |
| | RA | 2.96E+2 | L |
| Swimming dermal absorption | NC | 1.43E-2 | L h/(kg d cm) |
| | CC | 6.11E-3 | L h/(kg d cm) |
| | RA | 1.09E+4 | L h/cm |
| Swimming water ingestion | NC | 7.13E-5 | L/(kg d) |
| | CC | 3.06E-5 | L/(kg d) |
| | RA | 5.47E+1 | L |
| Swimming external | RA | 5.47E+2 | h dose |
| Shoreline dermal absorption | NC | 3.39E-7 | kg ev / (kg d) |
| | RA | 2.50E-2 | kg ev |
| | CC | 1.45E-7 | kg ev / (kg d) |
| Shoreline sediment ingestion | NC | 6.98E-8 | kg/(kg d) |
| | CC | 2.99E-8 | kg/(kg d) |
| | RA | 2.52E-2 | kg |
| Shoreline external | RA | 1.09E+2 | h dose |
| Boating external | RA | 2.74E+2 | h dose |
| Vegetable ingestion | NC | 1.14E-3 | kg/(kg d) |
| | CC | 4.90E-4 | kg/(kg d) |
| | RA | 8.77E+2 | kg |
| Fruit ingestion | NC | 6.00E-4 | kg/(kg d) |
| | CC | 2.57E-4 | kg/(kg d) |
| | RA | 4.60E+2 | kg |
| Meat ingestion | NC | 1.07E-3 | kg/(kg d) |
| | CC | 4.59E-4 | kg/(kg d) |
| | RA | 8.22E+2 | kg |
| Milk ingestion | NC | 4.29E-3 | L/(kg d) |
| | CC | 1.84E-3 | L/(kg d) |
| | RA | 3.29E+3 | L |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-18. Residential Scenario Summary Intake Factors: Soil (mass).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil ingestion | NC | 3.64E-6 | kg/(kg d) |
| | CC | 1.56E-6 | kg/(kg d) |
| | RA | 1.32E+0 | kg |
| Soil dermal absorption | NC | 8.71E-6 | kg/(kg d) |
| | CC | 3.73E-6 | kg/(kg d) |
| | RA | 4.86E+0 | kg |
| Soil resuspension | NC | 1.43E-8 | kg/(kg d) |
| | CC | 6.12E-9 | kg/(kg d) |
| | RA | 1.10E-2 | kg |
| Soil external | RA | 2.10E+5 | h |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-19. Residential Scenario Summary Intake Factors: Soil (area).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil Ingestion | NC | 6.07E-8 | $m^2$/(kg d) |
| | CC | 2.60E-8 | $m^2$/(kg d) |
| | RA | 2.19E-2 | $m^2$ |
| Soil Dermal | NC | 1.45E-7 | $m^2$ ev/(kg d) |
| | CC | 6.22E-8 | $m^2$ ev/(kg d) |
| | RA | 8.10E-2 | $m^2$ ev |
| Soil Resuspension | NC | 2.38E-10 | $m^2$/(kg d) |
| | CC | 1.02E-10 | $m^2$/(kg d) |
| | RA | 1.83E-4 | $m^2$ |
| Vegetable ingestion | NC | 1.14E-3 | kg/(kg d) |
| | CC | 4.90E-4 | kg/(kg d) |
| | RA | 8.77E+2 | kg |
| Fruit ingestion | NC | 6.00E-4 | kg/(kg d) |
| | CC | 2.57E-4 | kg/(kg d) |
| | RA | 4.60E+2 | kg |
| Soil External | RA | 2.10E+5 | h |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-20. Residential Scenario Summary Intake Factors: Air.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Inhalation | NC<br>CC<br>RA | 2.86E-1<br>1.22E-1<br>2.19E+5 | $m^3$/(kg d)<br>$m^3$/(kg d)<br>$m^3$ |
| Air external dose | RA | 2.63E+5 | hr |
| Vegetable ingestion | NC<br>CC<br>RA | 1.14E-3<br>4.90E-4<br>8.77E+2 | kg/(kg d)<br>kg/(kg d)<br>kg |
| Fruit ingestion | NC<br>CC<br>RA | 6.00E-4<br>2.57E-4<br>4.60E+2 | kg/(kg d)<br>kg/(kg d)<br>kg. |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-21. Residential Scenario Summary Intake Factors: Groundwater.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| -- | NC | 2.86E-2 | L/(kg d) |
| -- | CC | 1.22E-2 | L/(kg d) |
| -- | RA | 2.19E+4 | L |
| Water dermal absorption | NC<br>CC<br>RA | 4.86E-2<br>2.08E-2<br>3.73E+4 | L h/(kg d cm)<br>L h/(kg d cm)<br>L h/cm |
| Shower water ingestion | NC<br>CC<br>RA | 1.46E-4<br>6.24E-5<br>1.12E+2 | L/(kg d)<br>L/(kg d)<br>L |
| Indoor inhalation | NC<br>CC<br>RA | 1.07E-1<br>4.59E-2<br>1.64E+4 | L/(kg d)<br>L/(kg d)<br>L |
| Vegetable ingestion | NC<br>CC<br>RA | 1.14E-3<br>4.90E-4<br>8.77E+2 | kg/(kg d)<br>kg/(kg d)<br>kg |
| Fruit ingestion | NC<br>CC<br>RA | 6.00E-4<br>2.57E-4<br>4.60E+2 | kg/(kg d)<br>kg/(kg d)<br>kg |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-22. Residential Scenario Summary Intake Factors: Surface Water.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Water ingestion | NC | 2.86E-2 | L/(kg d) |
| | CC | 1.22E-2 | L/(kg d) |
| | RA | 2.19E+4 | L |
| Water dermal absorption | NC | 4.86E-2 | L h/(kg d cm) |
| | CC | 2.08E-2 | L h/(kg d cm) |
| | RA | 3.73E+4 | L h/cm |
| Shower water Ingestion | NC | 1.46E-4 | L/(kg d) |
| | CC | 6.24E-5 | L/(kg d) |
| | RA | 1.12E+2 | L |
| Indoor inhalation | NC | 1.07E-1 | L/(kg d) |
| | CC | 4.59E-2 | L/(kg d) |
| | RA | 1.64E+4 | L |
| Fish ingestion | NC | 3.86E-4 | L/(kg d) |
| | CC | 1.65E-4 | L/(kg d) |
| | RA | 2.96E+2 | L |
| Swimming dermal absorption | NC | 1.43E-2 | L h/(kg d cm) |
| | CC | 6.11E-3 | L h/(kg d cm) |
| | RA | 1.09E+4 | L h/cm |
| Swimming water Ingestion | NC | 7.13E-5 | L/(kg d) |
| | CC | 3.06E-5 | L/(kg d) |
| | RA | 5.47E+1 | L |
| Swimming external dose | RA | 5.47E+2 | h |
| | NC | 3.39E-7 | kg ev / (kg d) |
| | CC | 1.45E-7 | kg ev / (kg d) |
| Shoreline dermal absorption | RA | 2.50E-2 | kg ev |
| Shoreline sediment ingestion | NC | 6.98E-8 | kg/(kg d) |
| | CC | 2.99E-8 | kg/(kg d) |
| | RA | 2.52E-2 | kg |
| Shoreline external | RA | 1.09E+2 | h dose |
| Boating external | RA | 2.74E+2 | h dose |
| Vegetable ingestion | NC | 1.14E-3 | kg/(kg d) |
| | CC | 4.90E-4 | kg/(kg d) |
| | RA | 8.77E+2 | kg |
| Fruit ingestion | NC | 6.00E-4 | kg/(kg d) |
| | CC | 2.57E-4 | kg/(kg d) |
| | RA | 4.60E+2 | kg |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-23. Industrial Scenario Summary Intake Factors: Soil (mass).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil Ingestion | NC | 2.86E-7 | kg/(kg d) |
| | CC | 8.16E-8 | kg/(kg d) |
| | RA | 1.46E-1 | kg |
| Soil Dermal | NC | 5.71E-6 | kg/(kg d) |
| | CC | 1.63E-6 | kg/(kg d) |
| | RA | 2.92E+0 | kg |
| Soil Resuspension | NC | 9.79E-9 | kg/(kg d) |
| | CC | 2.80E-9 | kg/(kg d) |
| | RA | 5.00E-3 | kg |
| Soil External | RA | 1.87E+4 | h |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-24. Industrial Scenario Summary Intake Factors: Soil (area).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil Ingestion | NC | 4.76E-9 | $m^2$/(kg d) |
| | CC | 1.36E-9 | $m^2$/(kg d) |
| | RA | 2.44E-3 | $m^2$ |
| Soil Dermal | NC | 9.52E-8 | $m^2$ ev/(kg d) |
| | CC | 2.72E-8 | $m^2$ ev/(kg d) |
| | RA | 4.87E-2 | $m^2$ ev |
| Soil Resuspension | NC | 1.63E-10 | $m^2$/(kg d) |
| | CC | 4.66E-11 | $m^2$/(kg d) |
| | RA | 8.34E-5 | $m^2$ |
| Soil External | RA | 1.87E+4 | h |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-25. Industrial Scenario Summary Intake Factors: Air.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Inhalation | NC | 1.96E-1 | $m^3$/(kg d) |
| | CC | 5.59E-2 | $m^3$/(kg d) |
| | RA | 1.00E+5 | $m^3$ |
| Air external dose | RA | 2.34E+4 | hr |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-26. Industrial Scenario Summary Intake Factors: Groundwater and Surface Water.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Water ingestion | NC | 9.79E-3 | L/(kg d) |
| | CC | 2.80E-3 | L/(kg d) |
| | RA | 5.00E+3 | L |
| Water dermal absorption | NC | 3.33E-2 | L h/(kg d cm) |
| | CC | 9.51E-3 | L h/(kg d cm) |
| | RA | 1.70E+4 | L h/cm |
| | NC | 9.98E-5 | L/(kg d) |
| | CC | 2.85E-5 | L/(kg d) |
| | RA | 5.10E+1 | L |
| Shower water Ingestion | NC | 9.79E-2 | L/(kg d) |
| Indoor inhalation | CC | 2.80E-2 | L/(kg d) |
| | RA | 1.00E+4 | L |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-27. Recreational Scenario Summary Intake Factors: Soil (mass).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil ingestion | NC | 6.98E-8 | kg/(kg d) |
| | CC | 3.00E-8 | kg/(kg d) |
| | RA | 2.52E-2 | kg |
| Soil dermal absorption | NC | 3.39E-7 | kg/(kg d) |
| | CC | 1.45E-7 | kg/(kg d) |
| | RA | 1.89E-1 | kg |
| Soil resuspension | NC | 3.39E-10 | kg/(kg d) |
| | CC | 1.45E-10 | kg/(kg d) |
| | RA | 1.89E-4 | kg |
| Soil external | RA | 1.34E+3 | h |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-28. Recreational Scenario Summary Intake Factors: Soil (area).*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Soil Ingestion | NC | 1.17E-9 | $m^2$/(kg d) |
| | CC | 5.00E-10 | $m^2$/(kg d) |
| | RA | 4.20E-4 | $m^2$ |
| Soil Dermal | NC | 5.66E-9 | $m^2$ ev/(kg d) |
| | CC | 2.43E-9 | $m^2$ ev/(kg d) |
| | RA | 3.15E-3 | $m^2$ ev |
| Soil Resuspension | NC | 4.57E-12 | $m^2$/(kg d) |
| | CC | 1.96E-12 | $m^2$/(kg d) |
| | RA | 3.50E-6 | $m^2$ |
| Soil External | RA | 1.35E+3 | h |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-29. Recreational Scenario Summary Intake Reactors: Air.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Inhalation | NC | 1.96E-1 | $m^3$/(kg d) |
| | CC | 5.59E-2 | $m^3$/(kg d) |
| | RA | 1.00E+5 | $m^3$ |
| Air external dose | RA | 2.34E+4 | hr |

NC = noncarcinogenic chemicals
CC = carcinogenic chemical
RA = radionuclides.

*Table B4-30. Recreational Scenario Summary Intake Factors: Groundwater.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Water ingestion | NC | 5.49E-4 | L/(kg d) |
| | CC | 2.35E-4 | L/(kg d) |
| | RA | 4.21E+2 | L |
| Water dermal absorption | NC | 9.33E-4 | L h/(kg d cm) |
| | CC | 4.00E-4 | L h/(kg d cm) |
| | RA | 7.15E+2 | L h/cm |
| Shower water ingestion | NC | 4.66E-7 | L/(kg d) |
| | CC | 2.00E-7 | L/(kg d) |
| | RA | 3.58E-1 | L |
| Indoor inhalation | NC | 2.74E-3 | L/(kg d) |
| | CC | 1.18E-3 | L/(kg d) |
| | RA | 4.21E+2 | L |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-31. Recreational Scenario Summary Intake Factors: Surface Water.*

| Exposure Pathways | Type | SIF Value | Units |
|---|---|---|---|
| Water ingestion | NC | 5.49E-4 | L/(kg d) |
| | CC | 2.35E-4 | L/(kg d) |
| | RA | 4.21E+2 | L |
| Fish ingestion | NC | 3.86E-4 | L/(kg d) |
| | CC | 1.65E-4 | L/(kg d) |
| | RA | 2.96E+2 | L |
| | NC | 1.43E-2 | L h/(kg d cm) |
| Swimming dermal absorption | CC | 6.11E-3 | L h/(kg d cm) |
| | RA | 1.09E+4 | L h/cm |
| Swimming water ingestion | NC | 7.13E-5 | L/(kg d) |
| | CC | 3.06E-5 | L/(kg d) |
| | RA | 5.47E+1 | L |
| Swimming external | RA | 5.47E+2 | h dose |
| Shoreline dermal absorption | NC | 3.39E-7 | kg ev / (kg d) |
| | CC | 1.45E-7 | kg ev / (kg d) |
| | RA | 2.50E-2 | kg ev |
| Shoreline sediment ingestion | NC | 6.98E-8 | kg/(kg d) |
| | CC | 2.99E-8 | kg/(kg d) |
| | RA | 2.52E-2 | kg |
| Shoreline external | RA | 2.74E+2 | h dose |
| Boating external | RA | 1.09E+2 | h dose |

NC = noncarcinogenic chemicals
CC = carcinogenic chemicals
RA = radionuclides.

*Table B4-32. Agricultural Scenario Noncarcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 1.10E-03 | 1.46E-04 | 4.27E+01 | 1.05E+01 | 1.11E+01 |
| Aluminum nitrate | 4.11E-04 | 5.50E-05 | 3.95E+01 | 3.93E+00 | 4.12E+00 |
| Aluminum (ionic) | 9.13E-03 | 1.24E-03 | 4.85E+02 | 1.02E+02 | 1.13E+02 |
| Ammonium carbonate | 9.17E-05 | 1.22E-05 | 1.09E+01 | 9.59E-01 | 9.72E-01 |
| Ammonium nitrate | 4.08E-05 | 5.43E-06 | 4.82E+00 | 4.25E-01 | 4.31E-01 |
| Beryllium (ionic) | 1.08E-03 | 1.49E-04 | 3.00E+01 | 9.64E+00 | 1.19E+01 |
| Butyl phosphates | 1.87E-04 | 8.19E-04 | 6.58E+00 | 9.02E-01 | 9.82E-01 |
| Cadmium (ionic) | 1.08E-02 | 6.33E-03 | 1.01E+03 | 8.99E+01 | 2.46E+02 |
| Calcium carbonate | 1.41E-05 | 1.88E-06 | 1.67E+00 | 1.48E-01 | 1.50E-01 |
| Calcium (ionic) | 2.17E-07 | 2.89E-08 | 2.55E-02 | 2.26E-03 | 2.30E-03 |
| Calcium nitrate | 9.97E-06 | 1.33E-06 | 1.17E+00 | 1.04E-01 | 1.06E-01 |
| Carbon tetrachloride | 2.81E-05 | 0.00E+00 | 4.08E+02 | 2.10E+02 | 2.93E+02 |
| Chromium VI (ionic) | 2.60E-02 | 3.48E-03 | 5.01E+05 | 1.12E+01 | 2.73E+01 |
| Copper sulfate | 3.06E-04 | 4.08E-05 | 2.92E+01 | 3.20E+00 | 3.25E+00 |
| Copper (ionic) | 1.22E-02 | 2.06E-02 | 9.33E+02 | 1.64E+02 | 2.30E+02 |
| Dibutyl phosphonate | 9.51E-05 | 3.88E-04 | 3.35E+00 | 4.46E-01 | 4.89E-01 |
| Ferric nitrate | 1.22E-04 | 1.63E-05 | 1.45E+01 | 1.28E+00 | 1.30E+00 |
| Ferrocyanide (ionic) | 2.45E-05 | 3.26E-06 | 2.89E+00 | 2.55E-01 | 2.59E-01 |
| Ferrous nitrate | 1.62E-04 | 2.17E-05 | 1.89E+01 | 1.69E+00 | 1.71E+00 |
| Fluoride (ionic) | 6.11E-05 | 6.04E-05 | 1.59E+01 | 1.26E+00 | 1.33E+00 |
| Iron (as ferricion) | 4.53E-06 | 6.24E-07 | 3.34E+01 | 3.37E-02 | 6.27E-01 |
| Lead (ionic) | 2.66E-03 | 3.89E-04 | 7.83E+02 | 2.83E+01 | 5.62E+01 |
| Magnesium (ionic) | 2.77E-07 | 3.09E-07 | 4.09E+00 | 1.24E-03 | 1.64E-03 |
| Magnesium nitrate | 1.93E-06 | 2.58E-07 | 2.28E-01 | 2.02E-02 | 2.04E-02 |
| Mercury (ionic) | 1.37E-02 | 1.10E-01 | 5.67E+03 | 3.24E+02 | 1.62E+03 |
| Methyl isobutylketone | 6.35E-06 | 3.22E-04 | 5.75E+00 | 3.08E+00 | 3.09E+00 |
| Nickel (ionic) | 1.91E-04 | 8.40E-05 | 1.14E+01 | 2.23E+00 | 4.19E+00 |
| Nitrate | 2.29E-06 | 1.98E-03 | 1.43E+00 | 5.55E-01 | 3.68E+01 |
| Nitric acid | 1.05E-04 | 9.07E-02 | 6.54E+01 | 2.54E+01 | 1.68E+03 |
| Nitrite | 1.08E-04 | 1.44E-05 | 1.28E+01 | 1.13E+00 | 1.14E+00 |
| Oxalate (ionic) | 1.42E-05 | 1.90E-06 | 4.13E+01 | 1.28E-01 | 1.30E-01 |
| Phosphate (ionic) | 9.98E-06 | 5.71E-04 | 4.36E+01 | 3.93E-01 | 5.91E+01 |
| Potassium (ionic) | 7.19E-09 | 4.33E-08 | 1.86E-03 | 1.58E-04 | 9.15E-04 |
| Potassium borate | 4.08E-05 | 1.10E-04 | 6.88E+00 | 6.03E-01 | 6.10E-01 |
| Silver (ionic) | 7.67E-04 | 1.16E-04 | 3.59E+02 | 2.65E+01 | 2.68E+01 |
| Sodium (ionic) | 1.22E-08 | 2.25E-08 | 9.75E-03 | 7.09E-04 | 8.39E-04 |
| Sodium aluminate | 1.05E-04 | 1.43E-05 | 1.10E+01 | 1.06E+00 | 1.20E+00 |
| Sodium dichromate | 2.60E-02 | 3.48E-03 | 5.01E+05 | 1.12E+01 | 2.73E+01 |
| Sodium oxalate | 6.29E-05 | 8.38E-06 | 4.33E+01 | 6.39E-01 | 6.48E-01 |
| Sodium sulfamate | 1.83E-05 | 2.45E-06 | 2.17E+00 | 1.92E-01 | 1.95E-01 |
| Sulfate (ionic) | 2.55E-07 | 2.17E-06 | 4.10E+00 | 2.27E-03 | 6.35E-03 |
| Sulfuric acid | 5.23E-04 | 6.98E-05 | 6.21E+01 | 5.48E+00 | 5.55E+00 |
| Tributyl phosphate | 6.19E-06 | 0.00E+00 | 1.65E+01 | 2.30E+00 | 1.73E+01 |
| Tributyl phosphonate | 1.03E-04 | 0.00E+00 | 4.51E+00 | 3.33E-01 | 1.93E+00 |
| Trichloroethylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Uranium (ionic) | 1.28E-03 | 2.43E-04 | 2.67E+02 | 1.41E+01 | 2.08E+01 |
| Zinc (ionic) | 1.22E-05 | 1.83E-04 | 4.41E+00 | 3.87E-01 | 3.60E+00 |

*Table B4-33. Agricultural Scenario Carcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Beryllium (ionic) | 9.97E-06 | 1.38E-06 | 1.30E+00 | 8.88E-02 | 1.09E-01 |
| Butyl phosphates | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Cadmium (ionic) | 1.46E-05 | 8.54E-06 | 1.36E+00 | 1.21E-01 | 3.33E-01 |
| Calcium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Carbon tetrachloride | 1.10E-09 | 0.00E+00 | 6.50E-03 | 4.63E-03 | 7.87E-03 |
| Chromium VI (ionic) | 7.96E-05 | 1.22E-05 | 9.56E+00 | 9.85E-01 | 2.40E+00 |
| Copper sulfate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Copper (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Dibutyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferric nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrocyanide (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrous nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Fluoride (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Iron (as ferric ion) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Lead (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Mercury (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Methyl isobutyl ketone | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nickel (ionic) | 5.14E-09 | 6.85E-10 | 1.03E-01 | 0.00E+00 | 0.00E+00 |
| Nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitrite | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Oxalate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Phosphate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium borate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Silver (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium aluminate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium dichromate | 7.96E-05 | 1.22E-05 | 9.56E+00 | 9.85E-01 | 2.40E+00 |
| Sodium oxalate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium sulfamate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfuric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Tributyl phosphate | 3.66E-10 | 0.00E+00 | 9.76E-06 | 1.36E-04 | 1.02E-03 |
| Tributyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Trichloroethylene | 1.49E-10 | 0.00E+00 | 1.59E-03 | 8.32E-04 | 8.68E-04 |
| Uranium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Zinc (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

*Table B4-34. Agricultural Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Ac225 | 2.01E-11 | 1.15E-11 | 5.27E-04 | 9.00E-07 | 1.00E-06 |
| Ac227 | 6.65E-08 | 7.31E-09 | 1.93E-02 | 3.34E-04 | 3.37E-04 |
| Ag110m | 7.34E-09 | 2.66E-09 | 2.06E-05 | 4.61E-07 | 5.14E-07 |
| Am241 | 1.17E-08 | 1.56E-09 | 7.04E-03 | 9.26E-05 | 1.11E-04 |
| Am243 | 2.27E-08 | 3.07E-09 | 7.06E-03 | 9.43E-05 | 1.13E-04 |
| Au195 | 1.96E-10 | 7.68E-11 | 1.85E-06 | 1.97E-08 | 2.75E-08 |
| Ba133 | 8.90E-09 | 1.58E-09 | 9.86E-07 | 3.70E-08 | 1.51E-07 |
| Be10 | 4.96E-11 | 6.66E-12 | 4.84E-05 | 8.86E-08 | 9.11E-08 |
| Be7 | 2.52E-11 | 1.21E-11 | 6.70E-08 | 8.40E-10 | 1.06E-09 |
| Bi210 | 3.41E-11 | 3.96E-14 | 3.55E-05 | 1.21E-06 | 1.22E-06 |
| C14 | 2.86E-12 | 3.82E-13 | 3.08E-06 | 1.20E-07 | 1.35E-06 |
| Ca45 | 2.96E-14 | 5.78E-13 | 1.71E-06 | 6.21E-08 | 7.38E-08 |
| Cd109 | 2.19E-12 | 2.80E-12 | 1.55E-05 | 2.65E-07 | 7.34E-07 |
| Ce144 | 1.27E-10 | 4.44E-11 | 7.52E-05 | 2.07E-07 | 1.12E-06 |
| Cf250 | 5.12E-09 | 9.84E-10 | 3.58E-02 | 9.05E-05 | 1.01E-04 |
| Cf252 | 4.99E-09 | 1.89E-10 | 2.15E-02 | 5.00E-05 | 5.50E-05 |
| Cl36 | 7.25E-11 | 8.68E-09 | 2.14E-06 | 2.17E-06 | 2.20E-06 |
| Cm243 | 1.19E-08 | 1.27E-09 | 5.78E-03 | 6.69E-05 | 8.12E-05 |
| Cm244 | 6.47E-09 | 6.19E-10 | 4.86E-03 | 5.26E-05 | 6.46E-05 |
| Cm245 | 1.34E-08 | 1.80E-09 | 7.07E-03 | 9.67E-05 | 1.15E-04 |
| Cm246 | 1.21E-08 | 1.61E-09 | 7.04E-03 | 9.49E-05 | 1.13E-04 |
| Cm248 | 4.47E-08 | 5.96E-09 | 2.64E-02 | 3.50E-04 | 4.19E-04 |
| Co57 | 1.62E-10 | 5.78E-11 | 1.95E-06 | 2.24E-08 | 8.02E-08 |
| Co58 | 7.38E-10 | 3.43E-10 | 2.58E-06 | 5.83E-08 | 2.20E-07 |
| Co60 | 5.14E-08 | 1.11E-08 | 3.69E-05 | 5.92E-07 | 2.35E-06 |
| Cs134 | 1.24E-08 | 3.44E-09 | 2.69E-05 | 2.33E-06 | 2.67E-05 |
| Cs137 | 3.46E-08 | 5.22E-09 | 1.85E-05 | 1.61E-06 | 1.84E-05 |
| Es254 | 8.81E-08 | 1.22E-09 | 5.80E-03 | 2.48E-05 | 2.54E-05 |
| Eu152 | 4.42E-08 | 7.48E-09 | 2.45E-05 | 1.00E-07 | 3.16E-07 |
| Eu154 | 3.77E-08 | 7.04E-09 | 3.12E-05 | 1.39E-07 | 3.53E-07 |
| Eu155 | 3.32E-10 | 7.30E-11 | 4.01E-06 | 2.05E-08 | 2.59E-08 |
| Fe55 | 4.95E-14 | 1.42E-14 | 2.26E-07 | 9.05E-09 | 1.69E-07 |
| Ge68 | 3.71E-09 | 1.61E-09 | 3.34E-05 | 2.48E-06 | 3.36E-06 |
| H3 | 5.92E-16 | 2.79E-16 | 3.74E-08 | 1.47E-09 | 1.49E-09 |
| I129 | 3.50E-10 | 3.18E-10 | 1.49E-04 | 1.26E-05 | 4.08E-05 |
| K40 | 1.30E-08 | 1.91E-09 | 7.30E-06 | 6.80E-07 | 3.98E-06 |
| Kr85 | 7.42E-11 | 1.32E-11 | 2.69E-10 | 0.00E+00 | 3.56E-10 |
| Mn54 | 2.87E-09 | 9.84E-10 | 1.39E-06 | 3.37E-08 | 1.83E-07 |
| Mo93 | 5.59E-10 | 7.61E-11 | 4.45E-06 | 8.05E-08 | 8.80E-08 |
| Na22 | 2.16E-08 | 5.66E-09 | 1.48E-05 | 1.09E-06 | 1.44E-06 |

*Table B4-34. Agricultural Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Nb93m | 8.65E-13 | 2.21E-13 | 4.39E-06 | 2.06E-08 | 2.95E-08 |
| Nb94 | 1.29E-07 | 1.73E-08 | 4.94E-05 | 2.90E-07 | 8.42E-07 |
| Nb95 | 2.89E-10 | 1.42E-10 | 1.90E-06 | 6.65E-08 | 1.07E-07 |
| Ni59 | 1.36E-13 | 9.98E-14 | 1.69E-07 | 3.11E-09 | 5.82E-09 |
| Ni63 | 3.20E-13 | 2.46E-13 | 4.37E-07 | 8.20E-09 | 1.54E-08 |
| Np237 | 2.76E-08 | 4.54E-09 | 6.40E-03 | 1.12E-04 | 1.28E-04 |
| Np239 | 1.71E-12 | 8.57E-13 | 3.78E-07 | 1.87E-08 | 8.84E-08 |
| Pa231 | 3.44E-08 | 6.91E-09 | 7.95E-03 | 2.60E-04 | 2.61E-04 |
| Pa233 | 7.02E-09 | 1.77E-11 | 1.92E-05 | 1.15E-06 | 1.15E-06 |
| Pb210 | 1.10E-09 | 1.67E-10 | 9.79E-04 | 2.13E-05 | 4.09E-05 |
| Pb212 | 7.69E-12 | 3.85E-12 | 1.10E-05 | 5.85E-08 | 2.31E-07 |
| Pm147 | 1.79E-13 | 5.08E-14 | 6.62E-06 | 1.35E-08 | 1.58E-08 |
| Po210 | 5.15E-12 | 2.96E-12 | 5.88E-04 | 4.91E-06 | 2.71E-05 |
| Pu238 | 1.04E-08 | 1.28E-09 | 8.58E-03 | 8.05E-05 | 9.72E-05 |
| Pu239 | 1.15E-08 | 1.55E-09 | 8.36E-03 | 9.00E-05 | 1.07E-04 |
| Pu240 | 1.15E-08 | 1.54E-09 | 8.36E-03 | 9.00E-05 | 1.07E-04 |
| Pu241 | 2.15E-10 | 3.59E-11 | 7.82E-05 | 3.46E-06 | 3.73E-06 |
| Pu242 | 1.09E-08 | 1.46E-09 | 7.92E-03 | 8.50E-05 | 1.02E-04 |
| Ra223 | 8.46E-12 | 4.23E-12 | 6.84E-04 | 1.62E-06 | 2.96E-06 |
| Ra224 | 2.32E-08 | 6.03E-13 | 2.64E-04 | 8.20E-07 | 1.61E-06 |
| Ra225 | 5.53E-09 | 1.08E-12 | 3.33E-04 | 1.39E-06 | 2.45E-06 |
| Ra226 | 1.44E-07 | 1.92E-08 | 7.77E-04 | 1.05E-05 | 1.36E-05 |
| Ra228 | 1.00E-07 | 1.72E-08 | 8.20E-04 | 2.83E-05 | 4.75E-05 |
| Re187 | 8.17E-15 | 3.53E-14 | 8.60E-09 | 2.23E-10 | 4.33E-10 |
| Rn222 | 6.03E-12 | 9.91E-15 | 1.03E-04 | 6.71E-06 | 6.71E-06 |
| Ru103 | 1.86E-10 | 9.08E-11 | 1.96E-06 | 2.50E-08 | 5.35E-08 |
| Ru106 | 7.80E-10 | 2.58E-10 | 9.75E-05 | 2.82E-07 | 5.69E-07 |
| S35 | 2.36E-14 | 9.27E-13 | 2.42E-07 | 1.96E-08 | 6.85E-08 |
| Sb122 | 1.19E-11 | 5.97E-12 | 8.14E-07 | 4.03E-08 | 1.59E-07 |
| Sb124 | 1.24E-09 | 5.85E-10 | 5.30E-06 | 8.18E-08 | 2.63E-07 |
| Sc46 | 1.83E-09 | 8.30E-10 | 6.32E-06 | 5.06E-08 | 1.11E-07 |
| Se75 | 3.07E-10 | 1.31E-10 | 3.17E-06 | 2.52E-07 | 5.47E-07 |
| Se79 | 9.35E-12 | 4.40E-12 | 3.20E-06 | 2.48E-07 | 5.20E-07 |
| Sm147 | 1.94E-09 | 2.59E-10 | 1.58E-03 | 1.46E-05 | 1.48E-05 |
| Sm151 | 8.69E-13 | 1.26E-13 | 1.92E-06 | 8.86E-09 | 9.72E-09 |
| Sn113 | 1.22E-12 | 5.37E-13 | 2.31E-06 | 3.63E-08 | 8.09E-07 |
| Sn123 | 1.49E-11 | 6.35E-12 | 5.77E-06 | 2.18E-07 | 4.84E-06 |
| Sr85 | 2.86E-10 | 1.35E-10 | 3.94E-07 | 2.52E-08 | 3.89E-08 |
| Sr90 | 1.06E-09 | 4.26E-10 | 2.06E-05 | 1.38E-06 | 1.92E-06 |
| Ta182 | 1.49E-09 | 6.42E-10 | 9.74E-06 | 4.94E-08 | 1.52E-05 |

*Table B4-34. Agricultural Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Tc99 | 1.82E-12 | 4.20E-11 | 2.66E-06 | 9.76E-08 | 1.04E-07 |
| Th227 | 4.53E-09 | 5.45E-12 | 1.07E-03 | 1.65E-06 | 1.79E-06 |
| Th228 | 2.43E-07 | 6.10E-09 | 1.71E-02 | 4.33E-05 | 4.51E-05 |
| Th229 | 7.19E-08 | 1.15E-08 | 1.69E-02 | 3.96E-04 | 4.01E-04 |
| Th230 | 7.87E-09 | 1.12E-09 | 6.48E-03 | 6.59E-05 | 6.66E-05 |
| Th231 | 2.84E-12 | 3.89E-15 | 5.55E-05 | 3.59E-06 | 3.60E-06 |
| Th232 | 4.30E-08 | 2.92E-08 | 6.27E-03 | 3.32E-04 | 3.34E-04 |
| Th234 | 8.23E-10 | 1.93E-12 | 9.61E-06 | 2.57E-07 | 3.76E-07 |
| Tl204 | 4.19E-12 | 9.99E-13 | 7.60E-07 | 7.17E-08 | 1.22E-07 |
| Tm170 | 1.05E-11 | 4.47E-12 | 3.93E-06 | 9.70E-08 | 1.22E-07 |
| U232 | 4.17E-09 | 2.60E-08 | 1.32E-02 | 2.34E-06 | 3.72E-06 |
| U233 | 3.37E-10 | 5.78E-11 | 5.94E-03 | 1.62E-06 | 1.86E-06 |
| U234 | 3.25E-10 | 4.60E-11 | 5.70E-03 | 6.48E-07 | 8.89E-07 |
| U235 | 6.12E-09 | 8.20E-10 | 5.54E-03 | 4.22E-06 | 4.48E-06 |
| U236 | 3.12E-10 | 4.40E-11 | 5.48E-03 | 6.09E-07 | 8.35E-07 |
| U238 | 1.90E-09 | 3.55E-10 | 1.15E-02 | 9.03E-06 | 9.46E-06 |
| V49 | 2.33E-15 | 1.07E-15 | 5.31E-08 | 1.26E-09 | 1.37E-09 |
| Y88 | 3.62E-09 | 1.58E-09 | 4.49E-06 | 7.97E-07 | 8.50E-07 |
| Y90 | 1.99E-13 | 9.95E-14 | 1.25E-06 | 6.44E-08 | 8.83E-08 |
| Zn65 | 1.54E-09 | 5.94E-10 | 9.96E-06 | 6.60E-07 | 6.96E-06 |
| Zr93 | 2.35E-12 | 4.28E-13 | 1.67E-06 | 3.81E-08 | 4.83E-08 |

*Table B4-35. Residential Scenario Noncarcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 1.10E-03 | 1.46E-04 | 4.27E+01 | 1.05E+01 | 1.11E+01 |
| Aluminum nitrate | 4.11E-04 | 5.50E-05 | 3.95E+01 | 3.93E+00 | 4.12E+00 |
| Aluminum (ionic) | 9.13E-03 | 1.24E-03 | 3.92E+02 | 9.58E+01 | 1.07E+02 |
| Ammonium carbonate | 9.17E-05 | 1.22E-05 | 1.09E+01 | 9.59E-01 | 9.72E-01 |
| Ammonium nitrate | 4.08E-05 | 5.43E-06 | 4.82E+00 | 4.25E-01 | 4.31E-01 |
| Beryllium (ionic) | 1.08E-03 | 1.49E-04 | 2.97E+01 | 9.61E+00 | 1.18E+01 |
| Butyl phosphates | 1.87E-04 | 8.19E-04 | 6.58E+00 | 9.02E-01 | 9.81E-01 |
| Cadmium (ionic) | 1.08E-02 | 5.66E-03 | 8.68E+02 | 8.03E+01 | 2.37E+02 |
| Calcium carbonate | 1.41E-05 | 1.88E-06 | 1.67E+00 | 1.48E-01 | 1.50E-01 |
| Calcium (ionic) | 2.17E-07 | 2.89E-08 | 2.55E-02 | 2.26E-03 | 2.30E-03 |
| Calcium nitrate | 9.97E-06 | 1.33E-06 | 1.17E+00 | 1.04E-01 | 1.06E-01 |
| Carbon tetrachloride | 2.81E-05 | 0.00E+00 | 4.08E+02 | 2.09E+02 | 2.93E+02 |
| Chromium VI (ionic) | 2.60E-02 | 3.47E-03 | 5.01E+05 | 9.61E+00 | 2.57E+01 |
| Copper sulfate | 3.06E-04 | 4.08E-05 | 2.92E+01 | 3.20E+00 | 3.25E+00 |
| Copper (ionic) | 1.22E-02 | 1.34E-02 | 5.24E+02 | 1.33E+02 | 1.99E+02 |
| Dibutyl phosphonate | 9.51E-05 | 3.88E-04 | 3.35E+00 | 4.46E-01 | 4.89E-01 |
| Ferric nitrate | 1.22E-04 | 1.63E-05 | 1.45E+01 | 1.28E+00 | 1.30E+00 |
| Ferrocyanide (ionic) | 2.45E-05 | 3.26E-06 | 2.89E+00 | 2.55E-01 | 2.59E-01 |
| Ferrous nitrate | 1.62E-04 | 2.17E-05 | 1.89E+01 | 1.69E+00 | 1.71E+00 |
| Fluoride (ionic) | 6.11E-05 | 2.69E-05 | 7.23E+00 | 6.47E-01 | 7.20E-01 |
| Iron (as ferric ion) | 4.53E-06 | 6.15E-07 | 3.33E+01 | 2.99E-02 | 6.23E-01 |
| Lead (ionic) | 2.66E-03 | 3.88E-04 | 7.70E+02 | 2.74E+01 | 5.54E+01 |
| Magnesium (ionic) | 2.77E-07 | 1.92E-07 | 4.08E+00 | 8.30E-04 | 1.23E-03 |
| Magnesium nitrate | 1.93E-06 | 2.58E-07 | 2.28E-01 | 2.02E-02 | 2.04E-02 |
| Mercury (ionic) | 1.37E-02 | 1.12E-02 | 3.82E+03 | 1.40E+02 | 1.43E+03 |
| Methyl isobutyl ketone | 6.35E-06 | 3.22E-04 | 5.75E+00 | 3.08E+00 | 3.09E+00 |
| Nickel (ionic) | 1.91E-04 | 6.77E-05 | 7.43E+00 | 1.94E+00 | 3.90E+00 |
| Nitrate | 2.29E-06 | 2.64E-04 | 2.72E-01 | 1.30E-01 | 3.63E+01 |
| Nitric acid | 1.05E-04 | 1.21E-02 | 1.24E+01 | 5.91E+00 | 1.66E+03 |
| Nitrite | 1.08E-04 | 1.44E-05 | 1.28E+01 | 1.13E+00 | 1.14E+00 |
| Oxalate (ionic) | 1.42E-05 | 1.90E-06 | 4.13E+01 | 1.28E-01 | 1.30E-01 |
| Phosphate (ionic) | 9.98E-06 | 1.08E-04 | 4.11E+01 | 1.26E-01 | 5.88E+01 |
| Potassium (ionic) | 7.19E-09 | 1.62E-08 | 8.52E-04 | 8.12E-05 | 8.38E-04 |
| Potassium borate | 4.08E-05 | 8.04E-05 | 4.82E+00 | 4.56E-01 | 4.63E-01 |
| Silver (ionic) | 7.67E-04 | 1.06E-04 | 8.68E+01 | 7.78E+00 | 8.10E+00 |
| Sodium (ionic) | 1.22E-08 | 4.22E-09 | 1.45E-03 | 1.29E-04 | 2.60E-04 |
| Sodium aluminate | 1.05E-04 | 1.43E-05 | 1.01E+01 | 1.00E+00 | 1.14E+00 |
| Sodium dichromate | 2.60E-02 | 3.47E-03 | 5.01E+05 | 9.61E+00 | 2.57E+01 |
| Sodium oxalate | 6.29E-05 | 8.38E-06 | 4.33E+01 | 6.39E-01 | 6.48E-01 |
| Sodium sulfamate | 1.83E-05 | 2.45E-06 | 2.17E+00 | 1.92E-01 | 1.95E-01 |
| Sulfate (ionic) | 2.55E-07 | 3.31E-07 | 4.08E+00 | 6.59E-04 | 4.74E-03 |
| Sulfuric acid | 5.23E-04 | 6.98E-05 | 6.21E+01 | 5.48E+00 | 5.55E+00 |
| Tributyl phosphate | 6.19E-06 | 0.00E+00 | -1.65E+01 | 2.28E+00 | 1.73E+01 |
| Tributyl phosphonate | 1.03E-04 | 0.00E+00 | 4.45E+00 | 3.30E-01 | 1.93E+00 |
| Trichloroethylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Uranium (ionic) | 1.28E-03 | 2.37E-04 | 2.54E+02 | 1.31E+01 | 1.98E+01 |
| Zinc (ionic) | 1.22E-05 | 2.94E-05 | 1.45E+00 | 1.39E-01 | 3.35E+00 |

*Table B4-36. Residential Scenario Carcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Beryllium (ionic) | 9.97E-06 | 1.38E-06 | 1.30E+00 | 8.85E-02 | 1.09E-01 |
| Butyl phosphates | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Cadmium (ionic) | 1.46E-05 | 7.64E-06 | 1.17E+00 | 1.08E-01 | 3.20E-01 |
| Calcium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Carbon tetrachloride | 1.10E-09 | 0.00E+00 | 6.50E-03 | 4.63E-03 | 7.87E-03 |
| Chromium VI (ionic) | 7.96E-05 | 1.17E-05 | 7.57E+00 | 8.45E-01 | 2.26E+00 |
| Copper sulfate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Copper (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Dibutyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferric nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrocyanide (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrous nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Fluoride (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Iron (as ferric ion) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Lead (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Mercury (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Methyl isobutylketone | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nickel (ionic) | 5.14E-09 | 6.85E-10 | 1.03E-01 | 0.00E+00 | 0.00E+00 |
| Nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitrite | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Oxalate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Phosphate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium borate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Silver (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium aluminate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium dichromate | 7.96E-05 | 1.17E-05 | 7.57E+00 | 8.45E-01 | 2.26E+00 |
| Sodium oxalate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium sulfamate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfuric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Tributyl phosphate | 3.66E-10 | 0.00E+00 | 9.40E-06 | 1.35E-04 | 1.02E-03 |
| Tributyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Trichloroethylene | 1.49E-10 | 0.00E+00 | 1.59E-03 | 8.32E-04 | 8.68E-04 |
| Uranium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Zinc (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

*Table B4-37. Residential Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Ac225 | 2.01E-11 | 1.15E-11 | 5.27E-04 | 9.00E-07 | 1.00E-06 |
| Ac227 | 6.65E-08 | 7.31E-09 | 1.93E-02 | 3.34E-04 | 3.37E-04 |
| Ag110m | 7.34E-09 | 2.66E-09 | 1.59E-05 | 1.38E-07 | 1.92E-07 |
| Am241 | 1.17E-08 | 1.56E-09 | 7.04E-03 | 9.26E-05 | 1.11E-04 |
| Am243 | 2.27E-08 | 3.07E-09 | 7.06E-03 | 9.42E-05 | 1.13E-04 |
| Au195 | 1.96E-10 | 7.67E-11 | 1.85E-06 | 1.90E-08 | 2.68E-08 |
| Ba133 | 8.90E-09 | 1.58E-09 | 9.64E-07 | 3.55E-08 | 1.49E-07 |
| Be10 | 4.96E-11 | 6.66E-12 | 4.84E-05 | 8.81E-08 | 9.06E-08 |
| Be7 | 2.52E-11 | 1.21E-11 | 6.70E-08 | 8.37E-10 | 1.06E-09 |
| Bi210 | 3.41E-11 | 3.96E-14 | 3.29E-05 | 1.03E-06 | 1.04E-06 |
| C14 | 2.86E-12 | 3.82E-13 | 6.78E-07 | 7.04E-08 | 1.30E-06 |
| Ca45 | 2.96E-14 | 2.40E-13 | 1.22E-06 | 2.88E-08 | 4.06E-08 |
| Cd109 | 2.19E-12 | 2.51E-12 | 1.51E-05 | 2.37E-07 | 7.05E-07 |
| Ce144 | 1.27E-10 | 4.44E-11 | 7.52E-05 | 2.05E-07 | 1.12E-06 |
| Cf250 | 5.12E-09 | 9.65E-10 | 3.58E-02 | 8.96E-05 | 9.97E-05 |
| Cf252 | 4.99E-09 | 1.85E-10 | 2.15E-02 | 4.94E-05 | 5.45E-05 |
| Cl36 | 7.25E-11 | 1.37E-09 | 5.12E-07 | 5.97E-07 | 6.24E-07 |
| Cm243 | 1.19E-08 | 1.27E-09 | 5.78E-03 | 6.68E-05 | 8.12E-05 |
| Cm244 | 6.47E-09 | 6.19E-10 | 4.86E-03 | 5.26E-05 | 6.46E-05 |
| Cm245 | 1.34E-08 | 1.80E-09 | 7.07E-03 | 9.66E-05 | 1.15E-04 |
| Cm246 | 1.21E-08 | 1.61E-09 | 7.04E-03 | 9.49E-05 | 1.13E-04 |
| Cm248 | 4.47E-08 | 5.96E-09 | 2.64E-02 | 3.50E-04 | 4.19E-04 |
| Co57 | 1.62E-10 | 5.77E-11 | 1.87E-06 | 1.68E-08 | 7.46E-08 |
| Co58 | 7.38E-10 | 3.43E-10 | 2.40E-06 | 4.49E-08 | 2.07E-07 |
| Co60 | 5.14E-08 | 1.11E-08 | 3.49E-05 | 4.42E-07 | 2.20E-06 |
| Cs134 | 1.24E-08 | 3.44E-09 | 1.09E-05 | 1.20E-06 | 2.56E-05 |
| Cs137 | 3.46E-08 | 5.20E-09 | 7.40E-06 | 8.29E-07 | 1.76E-05 |
| Es254 | 8.81E-08 | 1.22E-09 | 5.79E-03 | 2.38E-05 | 2.44E-05 |
| Eu152 | 4.42E-08 | 7.48E-09 | 2.45E-05 | 9.87E-08 | 3.15E-07 |
| Eu154 | 3.77E-08 | 7.04E-09 | 3.12E-05 | 1.37E-07 | 3.50E-07 |
| Eu155 | 3.32E-10 | 7.30E-11 | 4.01E-06 | 2.01E-08 | 2.55E-08 |
| Fe55 | 4.95E-14 | 1.35E-14 | 2.14E-07 | 8.04E-09 | 1.68E-07 |
| Ge68 | 3.71E-09 | 1.30E-09 | 7.31E-06 | 2.55E-08 | 9.05E-07 |
| H3 | 5.92E-16 | 2.79E-16 | 2.52E-08 | 1.25E-09 | 1.27E-09 |
| I129 | 3.50E-10 | 1.49E-10 | 4.80E-05 | 5.63E-06 | 3.38E-05 |
| K40 | 1.30E-08 | 1.80E-09 | 2.94E-06 | 3.50E-07 | 3.65E-06 |
| Kr85 | 7.42E-11 | 1.32E-11 | 2.69E-10 | 0.00E+00 | 3.56E-10 |
| Mn54 | 2.87E-09 | 9.84E-10 | 1.37E-06 | 3.23E-08 | 1.82E-07 |
| Mo93 | 5.59E-10 | 7.56E-11 | 4.08E-06 | 5.34E-08 | 6.08E-08 |
| Na22 | 2.16E-08 | 5.65E-09 | 2.05E-06 | 2.00E-07 | 5.43E-07 |

*Table B4-37. Residential Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Nb93m | 8.65E-13 | 1.51E-13 | 4.18E-06 | 4.50E-09 | 1.34E-08 |
| Nb94 | 1.29E-07 | 1.73E-08 | 4.64E-05 | 6.37E-08 | 6.15E-07 |
| Nb95 | 2.89E-10 | 1.42E-10 | 1.25E-06 | 1.77E-08 | 5.87E-08 |
| Ni59 | 1.36E-13 | 7.70E-14 | 1.63E-07 | 2.70E-09 | 5.41E-09 |
| Ni63 | 3.20E-13 | 1.90E-13 | 4.22E-07 | 7.13E-09 | 1.43E-08 |
| Np237 | 2.76E-08 | 4.54E-09 | 6.40E-03 | 1.12E-04 | 1.28E-04 |
| Np239 | 1.71E-12 | 8.57E-13 | 3.76E-07 | 1.85E-08 | 8.82E-08 |
| Pa231 | 3.44E-08 | 6.91E-09 | 7.94E-03 | 2.60E-04 | 2.61E-04 |
| Pa233 | 7.02E-09 | 1.77E-11 | 1.79E-05 | 1.06E-06 | 1.06E-06 |
| Pb210 | 1.10E-09 | 1.65E-10 | 9.68E-04 | 2.05E-05 | 4.01E-05 |
| Pb212 | 7.69E-12 | 3.85E-12 | 1.10E-05 | 5.85E-08 | 2.31E-07 |
| Pm147 | 1.79E-13 | 5.01E-14 | 6.61E-06 | 1.32E-08 | 1.56E-08 |
| Po210 | 5.15E-12 | 2.91E-12 | 5.85E-04 | 4.73E-06 | 2.69E-05 |
| Pu238 | 1.04E-08 | 1.28E-09 | 8.58E-03 | 8.05E-05 | 9.71E-05 |
| Pu239 | 1.15E-08 | 1.55E-09 | 8.36E-03 | 9.00E-05 | 1.07E-04 |
| Pu240 | 1.15E-08 | 1.54E-09 | 8.36E-03 | 9.00E-05 | 1.07E-04 |
| Pu241 | 2.15E-10 | 3.59E-11 | 7.82E-05 | 3.46E-06 | 3.73E-06 |
| Pu242 | 1.09E-08 | 1.46E-09 | 7.92E-03 | 8.50E-05 | 1.02E-04 |
| Ra223 | 8.46E-12 | 4.23E-12 | 6.83E-04 | 1.58E-06 | 2.91E-06 |
| Ra224 | 2.32E-08 | 6.03E-13 | 2.64E-04 | 8.11E-07 | 1.60E-06 |
| Ra225 | 5.53E-09 | 1.08E-12 | 3.32E-04 | 1.34E-06 | 2.41E-06 |
| Ra226 | 1.44E-07 | 1.92E-08 | 7.63E-04 | 9.54E-06 | 1.26E-05 |
| Ra228 | 1.00E-07 | 1.72E-08 | 7.98E-04 | 2.68E-05 | 4.60E-05 |
| Re187 | 8.17E-15 | 2.34E-14 | 8.06E-09 | 1.82E-10 | 3.93E-10 |
| Rn222 | 6.03E-12 | 9.89E-15 | 9.13E-05 | 5.91E-06 | 5.91E-06 |
| Ru103 | 1.86E-10 | 9.08E-11 | 1.96E-06 | 2.48E-08 | 5.33E-08 |
| Ru106 | 7.80E-10 | 2.58E-10 | 9.75E-05 | 2.79E-07 | 5.66E-07 |
| S35 | 2.36E-14 | 1.34E-13 | 6.29E-08 | 6.30E-09 | 5.51E-08 |
| Sb122 | 1.19E-11 | 5.97E-12 | 8.13E-07 | 4.03E-08 | 1.59E-07 |
| Sb124 | 1.24E-09 | 5.85E-10 | 5.28E-06 | 8.06E-08 | 2.62E-07 |
| Sc46 | 1.83E-09 | 8.30E-10 | 6.29E-06 | 4.78E-08 | 1.09E-07 |
| Se75 | 3.07E-10 | 1.31E-10 | 1.95E-06 | 1.66E-07 | 4.60E-07 |
| Se79 | 9.35E-12 | 2.70E-12 | 1.95E-06 | 1.59E-07 | 4.31E-07 |
| Sm147 | 1.94E-09 | 2.59E-10 | 1.58E-03 | 1.46E-05 | 1.48E-05 |
| Sm151 | 8.69E-13 | 1.25E-13 | 1.92E-06 | 8.77E-09 | 9.63E-09 |
| Sn113 | 1.22E-12 | 5.28E-13 | 2.17E-06 | 2.49E-08 | 7.97E-07 |
| Sn123 | 1.49E-11 | 6.29E-12 | 4.95E-06 | 1.49E-07 | 4.77E-06 |
| Sr85 | 2.86E-10 | 1.35E-10 | 3.42E-07 | 2.16E-08 | 3.53E-08 |
| Sr90 | 1.06E-09 | 3.71E-10 | 1.78E-05 | 1.17E-06 | 1.72E-06 |
| Ta182 | 1.49E-09 | 6.42E-10 | 9.74E-06 | 4.92E-08 | 1.52E-05 |

*Table B4-37. Residential Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Tc99 | 1.82E-12 | 1.57E-11 | 1.97E-06 | 4.44E-08 | 5.05E-08 |
| Th227 | 4.53E-09 | 5.45E-12 | 1.07E-03 | 1.60E-06 | 1.74E-06 |
| Th228 | 2.43E-07 | 6.10E-09 | 1.71E-02 | 4.33E-05 | 4.51E-05 |
| Th229 | 7.19E-08 | 1.15E-08 | 1.69E-02 | 3.96E-04 | 4.01E-04 |
| Th230 | 7.87E-09 | 1.12E-09 | 6.47E-03 | 6.49E-05 | 6.56E-05 |
| Th231 | 2.84E-12 | 3.89E-15 | 5.42E-05 | 3.50E-06 | 3.51E-06 |
| Th232 | 4.30E-08 | 2.92E-08 | 6.25E-03 | 3.30E-04 | 3.33E-04 |
| Th234 | 8.23E-10 | 1.93E-12 | 9.10E-06 | 2.23E-07 | 3.41E-07 |
| Tl204 | 4.19E-12 | 9.94E-13 | 4.76E-07 | 4.99E-08 | 1.00E-07 |
| Tm170 | 1.05E-11 | 4.46E-12 | 3.90E-06 | 9.52E-08 | 1.20E-07 |
| Th231 | 2.84E-12 | 3.89E-15 | 5.42E-05 | 3.50E-06 | 3.51E-06 |
| Th232 | 4.30E-08 | 2.92E-08 | 6.25E-03 | 3.30E-04 | 3.33E-04 |
| Th234 | 8.23E-10 | 1.93E-12 | 9.10E-06 | 2.23E-07 | 3.41E-07 |
| Tl204 | 4.19E-12 | 9.94E-13 | 4.76E-07 | 4.99E-08 | 1.00E-07 |
| Tm170 | 1.05E-11 | 4.46E-12 | 3.90E-06 | 9.52E-08 | 1.20E-07 |
| U232 | 4.17E-09 | 2.60E-08 | 1.32E-02 | 2.24E-06 | 3.62E-06 |
| U233 | 3.37E-10 | 5.75E-11 | 5.94E-03 | 1.53E-06 | 1.77E-06 |
| U234 | 3.25E-10 | 4.58E-11 | 5.70E-03 | 6.13E-07 | 8.54E-07 |
| U235 | 6.12E-09 | 8.20E-10 | 5.54E-03 | 4.09E-06 | 4.35E-06 |
| U236 | 3.12E-10 | 4.38E-11 | 5.48E-03 | 5.77E-07 | 8.02E-07 |
| U238 | 1.90E-09 | 3.55E-10 | 1.15E-02 | 7.94E-06 | 8.37E-06 |
| V49 | 2.33E-15 | 1.02E-15 | 5.10E-08 | 1.11E-09 | 1.23E-09 |
| Y88 | 3.62E-09 | 1.58E-09 | 4.49E-06 | 7.96E-07 | 8.50E-07 |
| Y90 | 1.99E-13 | 9.95E-14 | 1.25E-06 | 6.44E-08 | 8.83E-08 |
| Zn65 | 1.54E-09 | 5.68E-10 | 4.48E-06 | 2.49E-07 | 6.55E-06 |
| Zr93 | 2.35E-12 | 3.93E-13 | 1.46E-06 | 2.18E-08 | 3.20E-08 |

*Table B4-38. Industrial Scenario Noncarcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 2.09E-04 | 1.92E-05 | 4.45E+00 | 3.21E+00 | 3.21E+00 |
| Aluminum nitrate | 7.88E-06 | 7.22E-07 | 1.78E+00 | 1.19E-01 | 1.19E-01 |
| Aluminum (ionic) | 7.35E-04 | 6.74E-05 | 1.40E+02 | 2.45E+01 | 2.45E+01 |
| Ammonium carbonate | 7.53E-06 | 6.91E-07 | 4.89E+00 | 2.46E-01 | 2.46E-01 |
| Ammonium nitrate | 3.34E-06 | 3.07E-07 | 2.17E+00 | 1.10E-01 | 1.10E-01 |
| Beryllium (ionic) | 2.86E-04 | 2.62E-05 | 0.00E+00 | 3.29E+00 | 3.29E+00 |
| Butyl phosphates | 9.11E-05 | 8.35E-06 | 2.97E+00 | 1.50E-01 | 1.50E-01 |
| Cadmium (ionic) | 2.88E-03 | 2.64E-04 | 3.91E+02 | 2.10E+01 | 2.10E+01 |
| Calcium carbonate | 1.16E-06 | 1.06E-07 | 7.53E-01 | 3.78E-02 | 3.78E-02 |
| Calcium (ionic) | 1.85E-08 | 1.70E-09 | 1.15E-02 | 5.83E-04 | 5.83E-04 |
| Calcium nitrate | 8.50E-07 | 7.79E-08 | 5.29E-01 | 2.67E-02 | 2.67E-02 |
| Carbon tetrachloride | 2.05E-05 | 0.00E+00 | 2.80E+02 | 1.55E+02 | 1.55E+02 |
| Chromium VI (ionic) | 1.74E-02 | 1.59E-03 | 3.43E+05 | 3.29E+00 | 3.29E+00 |
| Copper sulfate | 2.53E-05 | 2.32E-06 | 1.15E+01 | 8.22E-01 | 8.22E-01 |
| Copper (ionic) | 9.91E-04 | 9.09E-05 | 1.96E+01 | 3.29E+01 | 3.29E+01 |
| Dibutyl phosphonate | 4.63E-05 | 4.24E-06 | 1.51E+00 | 7.60E-02 | 7.60E-02 |
| Ferric nitrate | 1.00E-05 | 9.20E-07 | 6.52E+00 | 3.28E-01 | 3.28E-01 |
| Ferrocyanide (ionic) | 2.00E-06 | 1.84E-07 | 1.30E+00 | 6.55E-02 | 6.55E-02 |
| Ferrous nitrate | 1.53E-05 | 1.41E-06 | 8.51E+00 | 4.40E-01 | 4.40E-01 |
| Fluoride (ionic) | 5.02E-06 | 4.61E-07 | 3.26E+00 | 1.64E-01 | 1.64E-01 |
| Iron (as ferric ion) | 1.40E-06 | 1.28E-07 | 2.28E+01 | 7.80E-03 | 7.80E-03 |
| Lead (ionic) | 2.47E-04 | 2.26E-05 | 4.55E+02 | 7.00E+00 | 7.00E+00 |
| Magnesium (ionic) | 1.46E-07 | 1.33E-08 | 2.80E+00 | 1.98E-04 | 1.98E-04 |
| Magnesium nitrate | 1.58E-07 | 1.45E-08 | 1.03E-01 | 5.18E-03 | 5.18E-03 |
| Mercury (ionic) | 2.02E-03 | 1.85E-04 | 2.28E+03 | 3.82E+01 | 3.82E+01 |
| Methyl isobutyl ketone | 4.63E-06 | 1.18E-06 | 3.91E+00 | 2.16E+00 | 2.16E+00 |
| Nickel (ionic) | 2.00E-05 | 1.83E-06 | 0.00E+00 | 4.93E-01 | 4.93E-01 |
| Nitrate | 1.89E-07 | 1.73E-08 | 1.22E-01 | 6.15E-03 | 6.15E-03 |
| Nitric acid | 8.60E-06 | 7.89E-07 | 5.59E+00 | 2.81E-01 | 2.81E-01 |
| Nitrite | 8.86E-06 | 8.12E-07 | 5.76E+00 | 2.89E-01 | 2.89E-01 |
| Oxalate (ionic) | 2.37E-06 | 2.17E-07 | 2.80E+01 | 3.28E-02 | 3.28E-02 |
| Phosphate (ionic) | 2.04E-06 | 1.86E-07 | 2.80E+01 | 2.14E-02 | 2.14E-02 |
| Potassium (ionic) | 5.90E-10 | 5.42E-11 | 3.84E-04 | 1.92E-05 | 1.92E-05 |
| Potassium borate | 3.34E-06 | 3.07E-07 | 2.17E+00 | 1.10E-01 | 1.10E-01 |
| Silver (ionic) | 8.20E-05 | 7.52E-06 | 3.91E+01 | 2.04E+00 | 2.04E+00 |
| Sodium (ionic) | 1.00E-09 | 9.20E-11 | 6.52E-04 | 3.28E-05 | 3.28E-05 |
| Sodium aluminate | 2.02E-05 | 1.85E-06 | 4.55E+00 | 3.06E-01 | 3.06E-01 |
| Sodium dichromate | 1.74E-02 | 1.59E-03 | 3.43E+05 | 3.29E+00 | 3.29E+00 |
| Sodium oxalate | 6.26E-06 | 5.74E-07 | 2.80E+01 | 1.64E-01 | 1.64E-01 |
| Sodium sulfamate | 1.51E-06 | 1.38E-07 | 9.79E-01 | 4.91E-02 | 4.91E-02 |
| Sulfate (ionic) | 1.44E-07 | 1.32E-08 | 2.80E+00 | 1.39E-04 | 1.39E-04 |
| Sulfuric acid | 4.30E-05 | 3.94E-06 | 2.80E+01 | 1.41E+00 | 1.41E+00 |
| Tributyl phosphate | 4.51E-06 | 0.00E+00 | 1.12E+01 | 6.18E-01 | 6.18E-01 |
| Tributyl phosphonate | 5.01E-05 | 0.00E+00 | 1.63E+00 | 8.17E-02 | 8.17E-02 |
| Trichloroethylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Uranium (ionic) | 1.40E-04 | 1.29E-05 | 1.40E+02 | 3.49E+00 | 3.49E+00 |
| Zinc (ionic) | 1.02E-06 | 9.38E-08 | 6.52E-01 | 3.28E-02 | 3.28E-02 |

*Table B4-39. Industrial Scenario Carcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Beryllium (ionic) | 1.77E-06 | 1.63E-07 | 4.70E-01 | 2.03E-02 | 2.03E-02 |
| Butyl phosphates | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Cadmium (ionic) | 2.59E-06 | 2.38E-07 | 3.52E-01 | 1.89E-02 | 1.89E-02 |
| Calcium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Carbon tetrachloride | 5.33E-10 | 0.00E+00 | 2.96E-03 | 1.87E-03 | 1.87E-03 |
| Chromium VI (ionic) | 1.02E-05 | 9.31E-07 | 2.29E+00 | 1.92E-01 | 1.92E-01 |
| Copper sulfate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Copper (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Dibutyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferric nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrocyanide (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrous nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Fluoride (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Iron (as ferric ion) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Lead (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Mercury (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Methyl isobutyl ketone | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nickel (ionic) | 2.35E-09 | 2.15E-10 | 4.70E-02 | 0.00E+00 | 0.00E+00 |
| Nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitrite | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Oxalate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Phosphate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium borate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Silver (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium aluminate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium dichromate | 1.02E-05 | 9.31E-07 | 2.29E+00 | 1.92E-01 | 1.92E-01 |
| Sodium oxalate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium sulfamate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfuric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Tributyl phosphate | 1.77E-10 | 0.00E+00 | 0.00E+00 | 2.44E-05 | 2.44E-05 |
| Tributyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Trichloroethylene | 7.24E-11 | 0.00E+00 | 7.27E-04 | 4.18E-04 | 4.18E-04 |
| Uranium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Zinc (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

*Table B4-40. Industrial Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Radionuclide | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Ac225 | 2.76E-12 | 9.19E-13 | 2.40E-04 | 3.06E-07 | 3.06E-07 |
| Ac227 | 2.79E-08 | 2.16E-09 | 8.81E-03 | 1.50E-04 | 1.50E-04 |
| Ag110m | 9.79E-10 | 2.35E-10 | 6.94E-06 | 2.43E-08 | 2.43E-08 |
| Am241 | 6.80E-09 | 6.27E-10 | 3.20E-03 | 4.02E-05 | 4.02E-05 |
| Am243 | 7.84E-09 | 7.22E-10 | 3.20E-03 | 4.02E-05 | 4.02E-05 |
| Au195 | 2.61E-11 | 6.78E-12 | 8.08E-07 | 3.29E-09 | 3.29E-09 |
| Ba133 | 1.01E-09 | 1.14E-10 | 3.63E-07 | 6.09E-09 | 6.09E-09 |
| Be10 | 5.60E-12 | 5.13E-13 | 2.20E-05 | 1.60E-08 | 1.60E-08 |
| Be7 | 3.37E-12 | 1.07E-12 | 2.75E-08 | 1.54E-10 | 1.54E-10 |
| Bi210 | 5.13E-12 | 3.87E-15 | 8.01E-06 | 7.75E-09 | 7.75E-09 |
| C14 | 2.84E-13 | 2.59E-14 | 6.41E-10 | 4.53E-09 | 4.53E-09 |
| Ca45 | 5.94E-15 | 1.58E-15 | 5.11E-07 | 5.03E-09 | 5.03E-09 |
| Cd109 | 6.77E-13 | 1.38E-13 | 6.51E-06 | 4.21E-08 | 4.21E-08 |
| Ce144 | 1.70E-11 | 3.95E-12 | 3.40E-05 | 4.27E-08 | 4.27E-08 |
| Cf250 | 3.08E-09 | 3.37E-10 | 1.63E-02 | 2.98E-05 | 2.98E-05 |
| Cf252 | 2.39E-09 | 7.51E-11 | 9.74E-03 | 1.39E-05 | 1.39E-05 |
| Cl36 | 6.51E-12 | 5.96E-13 | 1.40E-07 | 9.06E-09 | 9.06E-09 |
| Cm243 | 5.03E-09 | 3.97E-10 | 2.60E-03 | 2.74E-05 | 2.74E-05 |
| Cm244 | 3.75E-09 | 2.75E-10 | 2.20E-03 | 2.19E-05 | 2.19E-05 |
| Cm245 | 7.19E-09 | 6.63E-10 | 3.20E-03 | 4.13E-05 | 4.13E-05 |
| Cm246 | 7.07E-09 | 6.48E-10 | 3.20E-03 | 4.13E-05 | 4.13E-05 |
| Cm248 | 2.61E-08 | 2.39E-09 | 1.20E-02 | 1.53E-04 | 1.53E-04 |
| Co57 | 2.16E-11 | 5.08E-12 | 8.22E-07 | 2.92E-09 | 2.92E-09 |
| Co58 | 9.84E-11 | 3.05E-11 | 9.90E-07 | 8.04E-09 | 8.04E-09 |
| Co60 | 6.48E-09 | 8.67E-10 | 1.50E-05 | 7.54E-08 | 7.54E-08 |
| Cs134 | 1.65E-09 | 2.93E-10 | 2.81E-06 | 2.06E-07 | 2.06E-07 |
| Cs137 | 3.42E-09 | 3.39E-10 | 1.90E-06 | 1.41E-07 | 1.41E-07 |
| Es254 | 8.47E-09 | 1.23E-10 | 2.55E-03 | 4.02E-06 | 4.02E-06 |
| Eu152 | 4.81E-09 | 5.23E-10 | 1.10E-05 | 2.74E-08 | 2.74E-08 |
| Eu154 | 4.40E-09 | 5.18E-10 | 1.40E-05 | 3.71E-08 | 3.71E-08 |
| Eu155 | 4.24E-11 | 5.78E-12 | 1.80E-06 | 5.41E-09 | 5.41E-09 |
| Fe55 | 1.04E-14 | 1.71E-15 | 8.41E-08 | 1.41E-09 | 1.41E-09 |
| Ge68 | 4.95E-10 | 1.14E-10 | 3.26E-06 | 4.39E-09 | 4.39E-09 |
| H3 | 1.03E-16 | 3.25E-17 | 7.81E-09 | 2.71E-10 | 2.71E-10 |
| I129 | 3.76E-11 | 3.44E-12 | 1.20E-05 | 9.55E-07 | 9.55E-07 |
| K40 | 1.15E-09 | 1.06E-10 | 7.63E-07 | 5.53E-08 | 5.53E-08 |
| Kr85 | 8.38E-12 | 9.48E-13 | 2.77E-11 | 0.00E+00 | 0.00E+00 |
| Mn54 | 3.82E-10 | 8.65E-11 | 5.39E-07 | 5.61E-09 | 5.61E-09 |
| Mo93 | 4.98E-11 | 4.56E-12 | 1.76E-06 | 8.84E-09 | 8.84E-09 |
| Na22 | 2.87E-09 | 4.75E-10 | 5.01E-07 | 3.42E-08 | 3.42E-08 |

*Table B4-40. Industrial Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Radionuclide | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Nb93m | 1.49E-13 | 1.62E-14 | 1.90E-06 | 7.94E-10 | 7.94E-10 |
| Nb94 | 1.15E-08 | 1.06E-09 | 2.10E-05 | 1.14E-08 | 1.14E-08 |
| Nb95 | 3.85E-11 | 1.26E-11 | 5.18E-07 | 3.32E-09 | 3.32E-09 |
| Ni59 | 2.17E-14 | 1.99E-15 | 7.01E-08 | 4.59E-10 | 4.59E-10 |
| Ni63 | 5.22E-14 | 4.91E-15 | 1.80E-07 | 1.21E-09 | 1.21E-09 |
| Np237 | 9.44E-09 | 9.21E-10 | 2.90E-03 | 4.86E-05 | 4.86E-05 |
| Np239 | 2.29E-13 | 7.62E-14 | 1.61E-07 | 4.11E-09 | 4.11E-09 |
| Pa231 | 2.03E-08 | 2.28E-09 | 3.60E-03 | 1.16E-04 | 1.16E-04 |
| Pa233 | 7.00E-10 | 1.57E-12 | 8.63E-07 | 4.95E-09 | 4.95E-09 |
| Pb210 | 1.80E-10 | 1.82E-11 | 4.00E-04 | 3.31E-06 | 3.31E-06 |
| Pb212 | 1.03E-12 | 3.42E-13 | 5.01E-06 | 1.33E-08 | 1.33E-08 |
| Pm147 | 1.00E-13 | 1.66E-14 | 3.00E-06 | 3.45E-09 | 3.45E-09 |
| Po210 | 1.89E-12 | 5.22E-13 | 2.60E-04 | 9.50E-07 | 9.50E-07 |
| Pu238 | 6.03E-09 | 5.26E-10 | 3.90E-03 | 3.48E-05 | 3.48E-05 |
| Pu239 | 6.74E-09 | 6.18E-10 | 3.80E-03 | 3.92E-05 | 3.92E-05 |
| Pu240 | 6.74E-09 | 6.17E-10 | 3.80E-03 | 3.92E-05 | 3.92E-05 |
| Pu241 | 1.27E-10 | 1.36E-11 | 2.30E-05 | 7.46E-07 | 7.46E-07 |
| Pu242 | 6.37E-09 | 5.84E-10 | 3.60E-03 | 3.70E-05 | 3.70E-05 |
| Ra223 | 1.16E-12 | 3.87E-13 | 3.10E-04 | 3.22E-07 | 3.22E-07 |
| Ra224 | 3.03E-09 | 5.50E-14 | 1.20E-04 | 1.77E-07 | 1.77E-07 |
| Ra225 | 4.80E-10 | 9.50E-14 | 1.50E-04 | 2.61E-07 | 2.61E-07 |
| Ra226 | 1.28E-08 | 1.18E-09 | 3.00E-04 | 6.59E-07 | 6.59E-07 |
| Ra228 | 8.90E-09 | 1.34E-09 | 3.15E-04 | 4.53E-06 | 4.53E-06 |
| Re187 | 1.06E-15 | 9.70E-17 | 3.38E-09 | 2.97E-11 | 2.97E-11 |
| Rn222 | 8.03E-13 | 9.31E-16 | 9.02E-08 | 1.31E-08 | 1.31E-08 |
| Ru103 | 2.48E-11 | 8.07E-12 | 8.45E-07 | 4.57E-09 | 4.57E-09 |
| Ru106 | 1.04E-10 | 2.26E-11 | 4.40E-05 | 4.87E-08 | 4.87E-08 |
| S35 | 3.27E-15 | 9.85E-16 | 1.90E-08 | 1.11E-09 | 1.11E-09 |
| Sb122 | 1.59E-12 | 5.30E-13 | 3.44E-07 | 8.83E-09 | 8.83E-09 |
| Sb124 | 1.65E-10 | 5.19E-11 | 2.22E-06 | 1.45E-08 | 1.45E-08 |
| Sc46 | 2.43E-10 | 7.37E-11 | 2.72E-06 | 9.24E-09 | 9.24E-09 |
| Se75 | 4.09E-11 | 1.16E-11 | 6.05E-07 | 2.91E-08 | 2.91E-08 |
| Se79 | 1.03E-12 | 9.43E-14 | 6.11E-07 | 2.72E-08 | 2.72E-08 |
| Sm147 | 1.15E-09 | 1.05E-10 | 7.21E-04 | 6.51E-06 | 6.51E-06 |
| Sm151 | 4.59E-13 | 4.33E-14 | 8.71E-07 | 3.08E-09 | 3.08E-09 |
| Sn113 | 1.64E-13 | 4.70E-14 | 9.43E-07 | 4.42E-09 | 4.42E-09 |
| Sn123 | 1.99E-12 | 5.58E-13 | 2.02E-06 | 2.62E-08 | 2.62E-08 |
| Sr85 | 3.82E-11 | 1.19E-11 | 1.05E-07 | 3.86E-09 | 3.86E-09 |
| Sr90 | 9.31E-11 | 7.71E-12 | 6.21E-06 | 1.85E-07 | 1.85E-07 |
| Ta182 | 1.99E-10 | 5.69E-11 | 4.31E-06 | 8.83E-09 | 8.83E-09 |

*Table B4-40. Industrial Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Radionuclide | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Tc99 | 2.37E-13 | 2.17E-14 | 8.31E-07 | 6.55E-09 | 6.55E-09 |
| Th227 | 5.00E-10 | 6.19E-13 | 4.90E-04 | 6.12E-07 | 6.12E-07 |
| Th228 | 2.36E-08 | 5.96E-10 | 7.81E-03 | 1.93E-05 | 1.93E-05 |
| Th229 | 3.28E-08 | 3.10E-09 | 7.71E-03 | 1.79E-04 | 1.79E-04 |
| Th230 | 4.68E-09 | 4.32E-10 | 2.90E-03 | 2.65E-05 | 2.65E-05 |
| Th231 | 3.81E-13 | 3.48E-16 | 4.91E-08 | 1.45E-09 | 1.45E-09 |
| Th232 | 2.56E-08 | 3.47E-09 | 2.80E-03 | 1.48E-04 | 1.48E-04 |
| Th234 | 8.33E-11 | 1.72E-13 | 3.20E-06 | 2.01E-08 | 2.01E-08 |
| Tl204 | 5.62E-13 | 8.29E-14 | 1.30E-07 | 8.54E-09 | 8.54E-09 |
| Tm170 | 1.41E-12 | 3.96E-13 | 1.63E-06 | 1.71E-08 | 1.71E-08 |
| U232 | 5.78E-10 | 1.66E-09 | 6.01E-03 | 5.01E-07 | 5.01E-07 |
| U233 | 1.49E-10 | 1.54E-11 | 2.70E-03 | 1.46E-07 | 1.46E-07 |
| U234 | 1.44E-10 | 1.31E-11 | 2.60E-03 | 1.45E-07 | 1.45E-07 |
| U235 | 6.54E-10 | 6.02E-11 | 2.50E-03 | 1.39E-07 | 1.39E-07 |
| U236 | 1.38E-10 | 1.27E-11 | 2.50E-03 | 1.36E-07 | 1.36E-07 |
| U238 | 3.77E-10 | 4.12E-11 | 5.21E-03 | 1.98E-07 | 1.98E-07 |
| V49 | 4.73E-16 | 1.06E-16 | 2.14E-08 | 1.94E-10 | 1.94E-10 |
| Y88 | 4.83E-10 | 1.40E-10 | 1.77E-06 | 3.34E-07 | 3.34E-07 |
| Y90 | 2.66E-14 | 8.86E-15 | 5.51E-07 | 1.42E-08 | 1.42E-08 |
| Zn65 | 2.05E-10 | 4.96E-11 | 1.61E-06 | 4.27E-08 | 4.27E-08 |
| Zr93 | 1.29E-12 | 1.23E-13 | 6.51E-07 | 8.02E-09 | 8.02E-09 |

*Table B4-41. Recreational Scenario Noncarcinogenic Chemical URF Sums over All Exposure Pathways.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 2.53E-05 | 3.38E-06 | 1.24E-01 | 1.57E-01 | 6.60E-01 |
| Aluminum nitrate | 9.46E-06 | 1.26E-06 | 4.98E-01 | 5.84E-02 | 2.46E-01 |
| Aluminum (ionic) | 1.75E-04 | 2.34E-05 | 3.91E-01 | 1.37E+00 | 1.23E+01 |
| Ammonium carbonate | 1.76E-06 | 2.35E-07 | 1.37E-01 | 1.37E-02 | 2.69E-02 |
| Ammonium nitrate | 7.84E-07 | 1.05E-07 | 6.08E-02 | 6.12E-03 | 1.20E-02 |
| Beryllium (ionic) | 2.76E-05 | 3.68E-06 | 0.00E+00 | 1.47E-01 | 2.34E+00 |
| Butyl phosphates | 6.21E-06 | 8.28E-07 | 8.30E-02 | 8.37E-03 | 8.76E-02 |
| Cadmium (ionic) | 2.77E-04 | 3.69E-05 | 1.10E+01 | 1.14E+00 | 1.58E+02 |
| Calcium carbonate | 2.71E-07 | 3.62E-08 | 2.11E-02 | 2.12E-03 | 4.15E-03 |
| Calcium (ionic) | 4.20E-09 | 5.60E-10 | 3.22E-04 | 3.25E-05 | 6.57E-05 |
| Calcium nitrate | 1.93E-07 | 2.57E-08 | 1.48E-02 | 1.49E-03 | 3.01E-03 |
| Carbon tetrachloride | 9.32E-07 | 0.00E+00 | 7.82E+00 | 4.73E+00 | 8.40E+01 |
| Chromium VI (ionic) | 6.15E-04 | 6.69E-05 | 9.61E+03 | 1.47E-01 | 1.62E+01 |
| Copper sulfate | 5.90E-06 | 7.87E-07 | 3.22E-01 | 4.59E-02 | 9.12E-02 |
| Copper (ionic) | 2.35E-04 | 3.14E-05 | 5.48E-01 | 1.84E+00 | 6.79E+01 |
| Dibutyl phosphonate | 3.15E-06 | 4.20E-07 | 4.21E-02 | 4.24E-03 | 4.66E-02 |
| Ferric nitrate | 2.35E-06 | 3.14E-07 | 1.83E-01 | 1.83E-02 | 3.59E-02 |
| Ferrocyanide (ionic) | 4.70E-07 | 6.27E-08 | 3.65E-02 | 3.67E-03 | 7.19E-03 |
| Ferrous nitrate | 3.19E-06 | 4.27E-07 | 2.38E-01 | 2.43E-02 | 5.33E-02 |
| Fluoride (ionic) | 1.17E-06 | 1.56E-07 | 9.13E-02 | 9.16E-03 | 8.23E-02 |
| Iron (as ferric ion) | 9.57E-08 | 1.18E-08 | 6.37E-01 | 4.30E-04 | 5.94E-01 |
| Lead (ionic) | 5.19E-05 | 6.91E-06 | 1.27E+01 | 3.92E-01 | 2.84E+01 |
| Magnesium (ionic) | 6.25E-09 | 7.11E-10 | 7.82E-02 | 1.10E-05 | 4.08E-04 |
| Magnesium nitrate | 3.71E-08 | 4.95E-09 | 2.88E-03 | 2.90E-04 | 5.68E-04 |
| Mercury (ionic) | 2.93E-04 | 3.91E-05 | 6.37E+01 | 1.99E+00 | 1.30E+03 |
| Methyl isobutyl ketone | 2.10E-07 | 8.10E-08 | 1.10E-01 | 6.60E-02 | 1.91E-02 |
| Nickel (ionic) | 3.83E-06 | 5.11E-07 | 0.00E+00 | 2.75E-02 | 1.99E+00 |
| Nitrate | 4.40E-08 | 5.88E-09 | 3.42E-03 | 3.44E-04 | 3.62E+01 |
| Nitric acid | 2.01E-06 | 2.69E-07 | 1.56E-01 | 1.57E-02 | 1.65E+03 |
| Nitrite | 2.07E-06 | 2.76E-07 | 1.61E-01 | 1.61E-02 | 3.17E-02 |
| Oxalate (ionic) | 2.83E-07 | 3.65E-08 | 7.82E-01 | 1.83E-03 | 3.59E-03 |
| Phosphate (ionic) | 2.01E-07 | 2.56E-08 | 7.82E-01 | 1.19E-03 | 5.87E+01 |
| Potassium (ionic) | 1.38E-10 | 1.85E-11 | 1.07E-05 | 1.08E-06 | 7.58E-04 |
| Potassium borate | 7.84E-07 | 1.05E-07 | 6.08E-02 | 6.12E-03 | 1.29E-02 |
| Silver (ionic) | 1.54E-05 | 2.06E-06 | 1.10E+00 | 1.12E-01 | 4.32E-01 |
| Sodium (ionic) | 2.35E-10 | 3.14E-11 | 1.83E-05 | 1.83E-06 | 1.33E-04 |
| Sodium aluminate | 2.42E-06 | 3.23E-07 | 1.27E-01 | 1.50E-02 | 1.53E-01 |
| Sodium dichromate | 6.15E-04 | 6.69E-05 | 9.61E+03 | 1.47E-01 | 1.62E+01 |
| Sodium oxalate | 1.21E-06 | 1.61E-07 | 7.82E-01 | 9.16E-03 | 1.80E-02 |
| Sodium sulfamate | 3.52E-07 | 4.70E-08 | 2.74E-02 | 2.75E-03 | 5.39E-03 |
| Sulfate (ionic) | 5.83E-09 | 6.54E-10 | 7.82E-02 | 7.75E-06 | 4.09E-03 |
| Sulfuric acid | 1.01E-05 | 1.34E-06 | 7.82E-01 | 7.86E-02 | 1.54E-01 |
| Tributyl phosphate | 2.05E-07 | 0.00E+00 | 3.13E-01 | 3.30E-02 | 1.51E+01 |
| Tributyl phosphonate | 3.40E-06 | 0.00E+00 | 4.56E-02 | 4.57E-03 | 1.61E+00 |
| Trichloroethylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Uranium (ionic) | 2.58E-05 | 3.44E-06 | 3.91E+00 | 1.89E-01 | 6.89E+00 |
| Zinc (ionic) | 2.36E-07 | 3.15E-08 | 1.83E-02 | 1.84E-03 | 3.21E+00 |

*Table B4-42. Recreational Scenario Carcinogenic Chemical URF Sums over Exposure Pathways for Each Medium.*

| Chemical Name | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Aluminum fluoride | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Aluminum (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ammonium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Beryllium (ionic) | 2.55E-07 | 3.40E-08 | 1.95E-02 | 1.35E-03 | 2.14E-02 |
| Butyl phosphates | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Cadmium (ionic) | 3.73E-07 | 4.97E-08 | 1.47E-02 | 1.53E-03 | 1.93E-01 |
| Calcium carbonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Calcium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Carbon tetrachloride | 3.63E-11 | 0.00E+00 | 1.24E-04 | 9.41E-05 | 3.27E-03 |
| Chromium VI (ionic) | 1.83E-06 | 2.44E-07 | 9.17E-02 | 1.29E-02 | 8.13E-01 |
| Copper sulfate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Copper (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Dibutyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferric nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrocyanide (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Ferrous nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Fluoride (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Iron (as ferric ion) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Lead (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Magnesium nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Mercury (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Methyl isobutyl ketone | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nickel (ionic) | 1.22E-10 | 1.32E-11 | 1.97E-03 | 0.00E+00 | 0.00E+00 |
| Nitrate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Nitrite | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Oxalate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Phosphate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Potassium borate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Silver (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium aluminate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium dichromate | 1.83E-06 | 2.44E-07 | 9.17E-02 | 1.29E-02 | 8.13E-01 |
| Sodium oxalate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sodium sulfamate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfate (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Sulfuric acid | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Tributyl phosphate | 1.21E-11 | 0.00E+00 | 0.00E+00 | 1.96E-06 | 8.90E-04 |
| Tributyl phosphonate | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Trichloroethylene | 4.93E-12 | 0.00E+00 | 3.05E-05 | 1.89E-05 | 3.84E-05 |
| Uranium (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Zinc (ionic) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

*Table B4-43. Recreational Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Radionuclide | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Ac225 | 1.32E-13 | 6.58E-14 | 1.01E-05 | 1.63E-08 | 1.06E-07 |
| Ac227 | 1.81E-09 | 1.87E-10 | 3.70E-04 | 6.36E-06 | 3.99E-06 |
| Ag110m | 4.69E-11 | 1.70E-11 | 2.96E-07 | 2.01E-09 | 5.58E-08 |
| Am241 | 4.36E-10 | 5.87E-11 | 1.34E-04 | 1.74E-06 | 1.83E-05 |
| Am243 | 5.16E-10 | 6.90E-11 | 1.34E-04 | 1.74E-06 | 1.84E-05 |
| Au195 | 1.25E-12 | 4.90E-13 | 3.40E-08 | 2.76E-10 | 8.08E-09 |
| Ba133 | 5.69E-11 | 1.01E-11 | 1.58E-08 | 5.09E-10 | 1.14E-07 |
| Be10 | 4.05E-13 | 5.48E-14 | 9.22E-07 | 1.28E-09 | 3.74E-09 |
| Be7 | 1.61E-13 | 7.73E-14 | 1.23E-09 | 1.27E-11 | 2.33E-10 |
| Bi210 | 3.49E-13 | 2.92E-16 | 3.36E-07 | 6.40E-10 | 7.87E-09 |
| C14 | 3.35E-14 | 4.48E-15 | 2.69E-11 | 3.80E-10 | 1.23E-06 |
| Ca45 | 5.75E-16 | 2.32E-16 | 2.14E-08 | 4.20E-10 | 1.22E-08 |
| Cd109 | 3.70E-14 | 1.15E-14 | 2.73E-07 | 3.43E-09 | 4.72E-07 |
| Ce144 | 8.15E-13 | 2.88E-13 | 1.43E-06 | 3.10E-09 | 9.21E-07 |
| Cf250 | 1.61E-10 | 2.78E-11 | 6.82E-04 | 1.53E-06 | 1.07E-05 |
| Cf252 | 1.51E-10 | 5.13E-12 | 4.09E-04 | 7.25E-07 | 5.33E-06 |
| Cl36 | 4.94E-13 | 6.59E-14 | 5.88E-09 | 7.59E-10 | 2.80E-08 |
| Cm243 | 3.27E-10 | 3.50E-11 | 1.09E-04 | 1.19E-06 | 1.44E-05 |
| Cm244 | 2.42E-10 | 2.32E-11 | 9.24E-05 | 9.54E-07 | 1.20E-05 |
| Cm245 | 4.65E-10 | 6.27E-11 | 1.34E-04 | 1.79E-06 | 1.83E-05 |
| Cm246 | 4.56E-10 | 6.10E-11 | 1.34E-04 | 1.79E-06 | 1.83E-05 |
| Cm248 | 1.69E-09 | 2.25E-10 | 5.04E-04 | 6.59E-06 | 6.93E-05 |
| Co57 | 1.03E-12 | 3.69E-13 | 3.46E-08 | 2.45E-10 | 5.80E-08 |
| Co58 | 4.71E-12 | 2.19E-12 | 4.32E-08 | 6.73E-10 | 1.62E-07 |
| Co60 | 3.28E-10 | 7.08E-11 | 6.35E-07 | 6.33E-09 | 1.77E-06 |
| Cs134 | 7.91E-11 | 2.19E-11 | 1.21E-07 | 1.72E-08 | 2.44E-05 |
| Cs137 | 2.22E-10 | 3.33E-11 | 8.09E-08 | 1.18E-08 | 1.68E-05 |
| Es254 | 5.97E-10 | 9.03E-12 | 1.07E-04 | 2.10E-07 | 7.13E-07 |
| Eu152 | 2.83E-10 | 4.78E-11 | 4.64E-07 | 1.59E-09 | 2.17E-07 |
| Eu154 | 2.41E-10 | 4.51E-11 | 5.91E-07 | 2.19E-09 | 2.15E-07 |
| Eu155 | 2.13E-12 | 4.69E-13 | 7.57E-08 | 3.22E-10 | 5.58E-09 |
| Fe55 | 9.89E-16 | 2.57E-16 | 3.53E-09 | 1.17E-10 | 1.60E-07 |
| Ge68 | 2.37E-11 | 8.32E-12 | 1.38E-07 | 3.68E-10 | 8.80E-07 |
| H3 | 1.14E-17 | 5.36E-18 | 3.28E-10 | 2.27E-11 | 4.23E-11 |
| I129 | 5.47E-12 | 7.29E-13 | 5.04E-07 | 8.02E-08 | 2.82E-05 |
| K40 | 8.30E-11 | 1.10E-11 | 3.22E-08 | 4.64E-09 | 3.30E-06 |
| Kr85 | 4.74E-13 | 8.45E-14 | 5.17E-12 | 0.00E+00 | 3.56E-10 |
| Mn54 | 1.83E-11 | 6.30E-12 | 2.40E-08 | 4.67E-10 | 1.50E-07 |
| Mo93 | 3.60E-12 | 4.81E-13 | 7.40E-08 | 7.42E-10 | 8.18E-09 |
| Na22 | 1.38E-10 | 3.62E-11 | 2.47E-08 | 2.87E-09 | 3.46E-07 |

*Table B4-43. Recreational Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Radionuclide | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Nb93m | 8.18E-15 | 1.42E-15 | 7.98E-08 | 6.49E-11 | 8.97E-09 |
| Nb94 | 8.27E-10 | 1.10E-10 | 8.85E-07 | 9.22E-10 | 5.52E-07 |
| Nb95 | 1.85E-12 | 9.06E-13 | 2.30E-08 | 2.75E-10 | 4.13E-08 |
| Ni59 | 2.74E-15 | 3.68E-16 | 2.94E-09 | 3.85E-11 | 2.75E-09 |
| Ni63 | 6.44E-15 | 8.96E-16 | 7.56E-09 | 1.01E-10 | 7.25E-09 |
| Np237 | 6.23E-10 | 8.87E-11 | 1.22E-04 | 2.09E-06 | 1.70E-05 |
| Np239 | 1.09E-14 | 5.48E-15 | 7.04E-09 | 3.44E-10 | 7.00E-08 |
| Pa231 | 1.30E-09 | 2.33E-10 | 1.51E-04 | 4.92E-06 | 1.75E-06 |
| Pa233 | 4.49E-11 | 1.13E-13 | 3.65E-08 | 4.15E-10 | 4.11E-09 |
| Pb210 | 2.18E-11 | 2.78E-12 | 1.68E-05 | 2.78E-07 | 1.99E-05 |
| Pb212 | 4.92E-14 | 2.46E-14 | 2.10E-07 | 1.12E-09 | 1.74E-07 |
| Pm147 | 4.46E-15 | 1.19E-15 | 1.26E-07 | 2.10E-10 | 2.46E-09 |
| Po210 | 1.18E-13 | 4.96E-14 | 1.09E-05 | 7.15E-08 | 2.23E-05 |
| Pu238 | 3.88E-10 | 4.81E-11 | 1.64E-04 | 1.51E-06 | 1.67E-05 |
| Pu239 | 4.35E-10 | 5.80E-11 | 1.60E-04 | 1.70E-06 | 1.75E-05 |
| Pu240 | 4.34E-10 | 5.80E-11 | 1.60E-04 | 1.70E-06 | 1.75E-05 |
| Pu241 | 8.24E-12 | 1.35E-12 | 9.66E-07 | 3.21E-08 | 2.77E-07 |
| Pu242 | 4.10E-10 | 5.48E-11 | 1.51E-04 | 1.60E-06 | 1.68E-05 |
| Ra223 | 5.64E-14 | 2.82E-14 | 1.30E-05 | 2.66E-08 | 1.36E-06 |
| Ra224 | 1.48E-10 | 4.05E-15 | 5.04E-06 | 1.47E-08 | 8.06E-07 |
| Ra225 | 3.70E-11 | 7.32E-15 | 6.30E-06 | 2.15E-08 | 1.08E-06 |
| Ra226 | 9.23E-10 | 1.23E-10 | 1.26E-05 | 5.30E-08 | 3.07E-06 |
| Ra228 | 6.60E-10 | 1.18E-10 | 1.32E-05 | 3.78E-07 | 1.96E-05 |
| Re187 | 1.57E-16 | 2.10E-17 | 1.42E-10 | 2.49E-12 | 2.13E-10 |
| Rn222 | 4.84E-14 | 9.19E-17 | 6.76E-09 | 8.19E-10 | 1.97E-09 |
| Ru103 | 1.19E-12 | 5.81E-13 | 3.62E-08 | 3.83E-10 | 2.89E-08 |
| Ru106 | 4.99E-12 | 1.65E-12 | 1.85E-06 | 4.04E-09 | 2.91E-07 |
| S35 | 1.94E-16 | 8.76E-17 | 7.98E-10 | 9.25E-11 | 4.89E-08 |
| Sb122 | 7.63E-14 | 3.82E-14 | 1.52E-08 | 7.41E-10 | 1.19E-07 |
| Sb124 | 7.89E-12 | 3.74E-12 | 9.62E-08 | 1.21E-09 | 1.83E-07 |
| Sc46 | 1.17E-11 | 5.31E-12 | 1.17E-07 | 7.25E-10 | 6.15E-08 |
| Se75 | 1.96E-12 | 8.41E-13 | 2.60E-08 | 2.44E-09 | 2.97E-07 |
| Se79 | 1.52E-13 | 2.03E-14 | 2.56E-08 | 2.28E-09 | 2.74E-07 |
| Sm147 | 7.33E-11 | 9.79E-12 | 3.02E-05 | 2.78E-07 | 1.88E-07 |
| Sm151 | 2.91E-14 | 4.07E-15 | 3.65E-08 | 1.52E-10 | 9.06E-10 |
| Sn113 | 8.03E-15 | 3.47E-15 | 4.00E-08 | 3.68E-10 | 7.73E-07 |
| Sn123 | 9.66E-14 | 4.08E-14 | 8.46E-08 | 2.20E-09 | 4.62E-06 |
| Sr85 | 1.83E-12 | 8.61E-13 | 5.21E-09 | 3.23E-10 | 1.40E-08 |
| Sr90 | 7.47E-12 | 8.22E-13 | 2.60E-07 | 1.53E-08 | 5.59E-07 |
| Ta182 | 9.51E-12 | 4.11E-12 | 1.84E-07 | 7.28E-10 | 1.51E-05 |

*Table B4-43. Recreational Scenario Radionuclide URF Sums over Exposure Pathways for Each Medium. (3 sheets)*

| Radionuclide | Soil (mass) | Soil (area) | Air | Groundwater | Surface Water |
|---|---|---|---|---|---|
| Tc99 | 3.48E-14 | 4.65E-15 | 3.49E-08 | 5.49E-10 | 6.61E-09 |
| Th227 | 3.33E-11 | 4.28E-14 | 2.06E-05 | 2.67E-08 | 1.35E-07 |
| Th228 | 1.73E-09 | 4.39E-11 | 3.28E-04 | 8.21E-07 | 1.85E-06 |
| Th229 | 2.13E-09 | 2.95E-10 | 3.23E-04 | 7.58E-06 | 4.47E-06 |
| Th230 | 2.99E-10 | 4.05E-11 | 1.22E-04 | 1.12E-06 | 6.40E-07 |
| Th231 | 1.86E-14 | 2.55E-17 | 2.08E-09 | 1.21E-10 | 1.20E-08 |
| Th232 | 1.65E-09 | 3.82E-10 | 1.18E-04 | 6.22E-06 | 2.40E-06 |
| Th234 | 5.30E-12 | 1.25E-14 | 1.34E-07 | 1.68E-09 | 1.20E-07 |
| Tl204 | 3.19E-14 | 7.58E-15 | 5.46E-09 | 7.16E-10 | 5.12E-08 |
| Tm170 | 6.83E-14 | 2.89E-14 | 6.85E-08 | 1.41E-09 | 2.60E-08 |
| U232 | 4.02E-11 | 1.86E-10 | 2.52E-04 | 2.89E-08 | 1.39E-06 |
| U233 | 6.24E-12 | 1.17E-12 | 1.13E-04 | 9.49E-09 | 2.49E-07 |
| U234 | 6.03E-12 | 8.79E-13 | 1.09E-04 | 9.45E-09 | 2.48E-07 |
| U235 | 4.29E-11 | 5.85E-12 | 1.05E-04 | 9.22E-09 | 2.67E-07 |
| U236 | 5.78E-12 | 8.42E-13 | 1.05E-04 | 8.89E-09 | 2.32E-07 |
| U238 | 1.93E-11 | 3.36E-12 | 2.18E-04 | 1.43E-08 | 4.40E-07 |
| V49 | 4.52E-17 | 1.54E-17 | 8.98E-10 | 1.62E-11 | 1.32E-10 |
| Y88 | 2.32E-11 | 1.01E-11 | 7.89E-08 | 1.49E-08 | 5.52E-08 |
| Y90 | 1.29E-15 | 6.46E-16 | 2.31E-08 | 1.18E-09 | 2.51E-08 |
| Zn65 | 9.85E-12 | 3.60E-12 | 6.84E-08 | 3.58E-09 | 6.30E-06 |
| Zr93 | 8.52E-14 | 1.21E-14 | 2.73E-08 | 3.74E-10 | 1.03E-08 |

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# Appendix B5

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# B5.0 Risk Assessment Calculation and Results

Three types of risk are determined in the *Hanford Remedial Action Environmental Impact Statement* (HRA-EIS). These types of risk are (1) cancers due to radionuclides, (2) cancers due to chemical carcinogens, and (3) noncancerous toxic effects. The worker and population weighted risk factors from different authoritative sources vary for cancer risk, but these risk factors are all on the order of $10^{-3}$ to $10^{-5}$ excess lifetime cancer risk per person-rem of radiation exposure. Table B5-1 compares the carcinogenic risk from radiation from several different sources. The total cancer risk in this EIS is determined by summing the radionuclide and chemical carcinogen risk.

Certain chemicals, like radiation, have long been known to be capable of causing carcinogenic effects at high doses, but their carcinogenicity at low doses has been considered only recently. Potential human carcinogenic effects are evaluated in this risk assessment using the weight-of-evidence classification of the EPA. The weight-of-evidence classification is a qualitative description of the probability of cancer occurrence in humans, based on the strength of human epidemiological and/or animal study data. This system, originally developed by the International Agency for Research on Cancer (IARC), has been slightly modified by EPA. Carcinogens are classified by EPA according to the following weight-of-evidence categories:

- **Group A-Human Carcinogen.** There is sufficient evidence from epidemiological studies that substantiates a causal association between exposure and carcinogenicity in humans.

- **Group B1-Probable Human Carcinogen.** There is limited evidence of carcinogenicity in humans from available epidemiological data.

- **Group B2-Probable Human Carcinogen.** There is sufficient evidence of carcinogenicity in animals, but inadequate or no evidence in humans.

- **Group C-Possible Human Carcinogen.** There is limited evidence of carcinogenicity in animals.

- **Group D-Not Classifiable as to Human Carcinogenicity.** The evidence for carcinogenicity in animals and humans is inadequate to support classification.

- **Group E-Human noncarcinogen.** There is evidence of noncarcinogenicity in humans.

The Slope Factor is the toxicity value that quantitatively defines the dose-response relationship of a known or suspected carcinogen. The Slope Factor is an estimate of an upperbound lifetime probability of an individual developing cancer due to exposure to a potential cancer-causing agent. The EPA has developed Slope Factors for carcinogens based on the premise that there is no threshold level of exposure below which carcinogenic effects will not be elicited. The *Hanford Site Baseline Risk Assessment Methodology (HSBRAM)* (DOE-RL 1993a) states that "... acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between $10^{-6}$ and $10^{-4}$, with $10^{-6}$ the point of departure ... for determining remediation goals when applicable or relevant and appropriate requirements are not available or not sufficiently protective because of the presence of multiple contaminants or multiple exposure pathways, 40 CFR sect 300.430(e)(i)(A)(2)."

Most of the data for chemical carcinogens has come from chronic exposures at high dose levels, and the data are too limited, with few exceptions, to enable quantitative analysis of dose-incidence curves. In those cases where data are available, the relationship between incidence and exposure are compatible with non-threshold functions similar to those for radiation-induced cancers (NCRP 1989). The risk (hazard index) for chemical noncarcinogens is addressed separately. The chemical noncarcinogen risk is based on consideration of a threshold for injury, so that if the exposure remains below a certain threshold, no harmful effects are assumed. Potential human health hazards associated with exposure to noncarcinogenic substances are evaluated separately from carcinogenic risks. The daily intake of a chemical over a specified period of time (e.g., lifetime or some shorter time period) is compared with a reference dose for a similar period to determine a ratio called the Hazard Quotient (HQ). The formula used to calculate the HQ is :

$$HQ = \frac{\text{Intake}}{\text{RfD}}$$

As a rule, the greater the value of the quotient above 1, the greater the level of concern.

An approach to assess the overall potential for noncarcinogenic effects posed by more than one chemical is the use of the Hazard Index. The Hazard Index is equal to the sum of the Hazard Quotients for individual chemicals. However it is only appropriate to add HQs for those chemicals which produce similar adverse effects. When the Hazard Index exceeds 1, there may be concern for health effects.

$$\text{Hazard Index} = HQ_1 + HQ_2 + HQ_3 + \ldots$$

## *B5.1 Risk Calculation*

The risk assessment method developed for this EIS represents a Modular Risk Analysis (MRA) approach (Figure B5-1). This method allows for evaluation of regional risk by accounting for the effects of widely scattered waste sites.

The three key end points identified for the application of MRA to this EIS dictated the type of assessment performed. First, the system had to be structured so that on-site and regional results could be presented as risk isopleths for the four exposure scenarios. Second, an automated modular approach to the assessment had to be developed so the user could change the source-term, transport, and/or exposure scenarios, without having to reperform the entire source-to-receptor analysis.

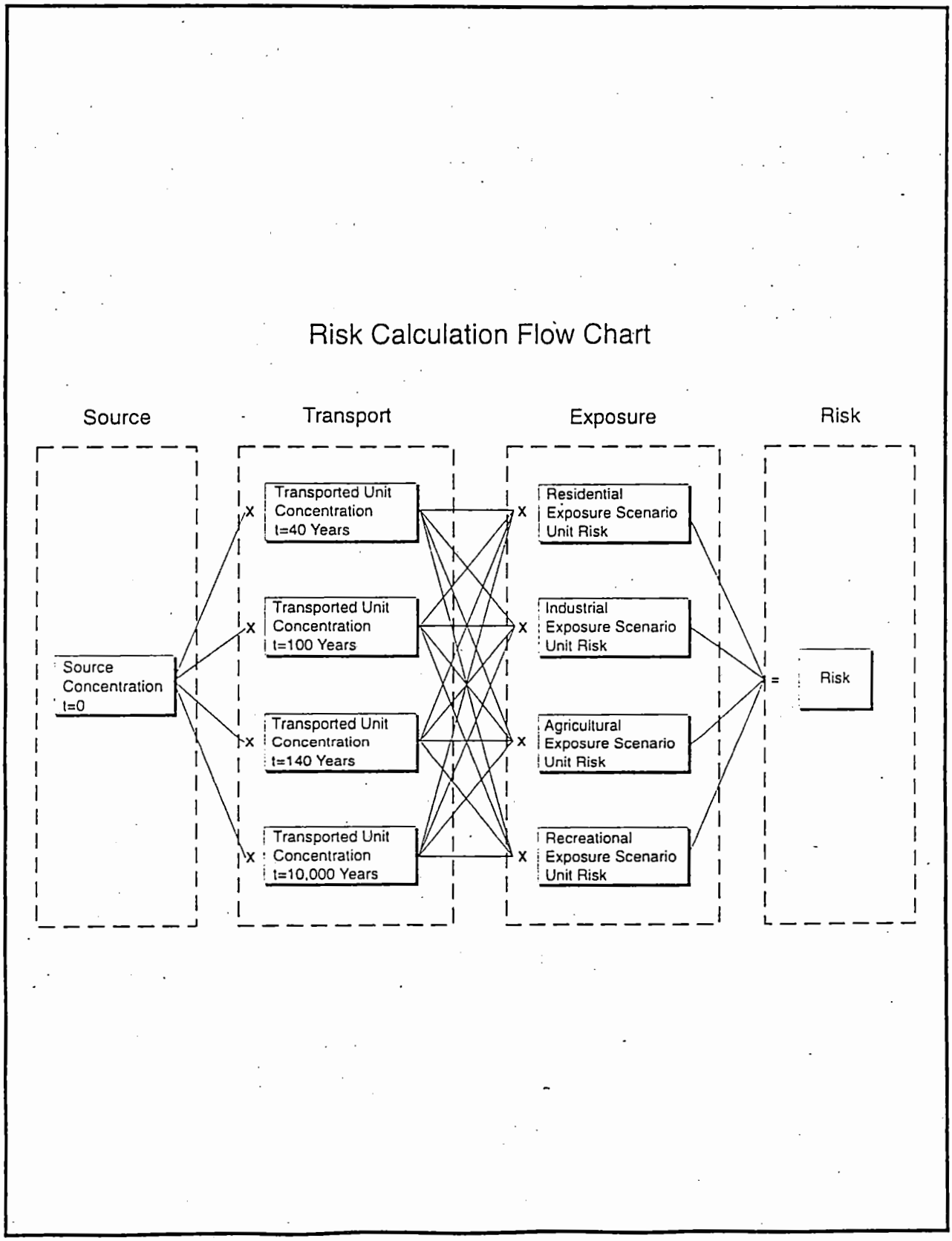
The assessment was divided into three components with each component independent of the others (Figure B5-1). Source-term data was collected simultaneously with unit transport and exposure/risk analyses. The final risk was calculated by multiplying numbers from each of the modules together (i.e., source term, transport, and exposure).

The risk was calculated as:

$$\text{Risk} = \frac{S_s}{S_u} \cdot \frac{C_{us}}{C_{uc}} \cdot R_u \qquad (1)$$

where $S_s$ is the inventory source term, $S_u$ is the inventory of an assumed unit source term, $C_{us}$ is the unit concentration at the receptor based on the assumed $S_u$ and unit-transport modeling, $C_{uc}$ is the unit concentration assumed at the receptor (which is not based on $S_u$ or transport modeling) in the unit-exposure analysis, and $R_u$ is the unit risk based on the unit-exposure analysis (i.e., $C_{uc}$).

*Figure B5-1. Modular Risk Assessment Approach for the Hanford Remedial Action Environmental Impact Statement.*



For example, under temporally far-field conditions, the concentration at a receptor is directly proportional to the waste inventory at the source; that is, as the source inventory doubles, the environmental concentration at the receptor doubles. An example of the temporally far-field case is illustrated on Figure B5-2. As the initial release at the source moves downgradient, the shape of the plume distribution becomes strictly Gaussian (e.g., at distance 1,000 on Figure B5-2). In other words, the results at distance 1,000 are the same as those that would be produced if the release was instantaneous at the source. Therefore, the distribution of the release at the source is independent of the source, except for mass or inventory that is released.

## *B5.2 Baseline Risk*[1]

Baseline risk is the risk to a user of the land under the No-Action Alternative. Depending on the land use scenario, the receptor is exposed to contaminated media through one or several pathways with no restrictions or institutional controls. These exposure scenarios are described in Appendix B4. This appendix summarizes the risk assessment results for each exposure scenario and time (0, 40, 100, 140, 1,000, and 10,000 years from present) considered (Tables B5-2 through B5-7). The risk values in these tables were calculated per Equation (1) for each constituent within a cell and then summed. Cancer risk values higher than 1.0 have been corrected to 1.0 because cancer risk, as a probability, cannot exceed unity. Supporting data for the $T_0$ results are provided in the supporting document to this appendix, and supporting data for future time calculations, which were considered too extensive for general publication, are available upon request from the U.S. Department of Energy (DOE). Isopleth maps of the risks presented here in tabular form are provided in Chapter 5.0 of the main text of this EIS.

## *B5.3 Remediation Risk*

Risk due to remediation operations can be separated into risk from routine activities and risk from accidents. Risk from routine activities refers to risk to workers and the general public resulting from daily activities and processes associated with the remediation efforts. Accident risk refers to the risk to workers and the general public from accidents that could occur as a result of the remediation activities.

### *B5.3.1 Risk from Routine Remediation Activities*

Remediation activities within the scope of this EIS would be carried out in compliance with all applicable laws, regulations, and DOE Orders. In addition, appropriate engineering and administrative measures would be applied during routine remediation activities so that the protection of workers, the general public, and the environment is ensured. For remediation workers, this involves wearing appropriate protective clothing; the use of respiratory protection, where necessary; and limiting exposures to contaminants in accordance with as low as reasonably achievable guidelines and good health physics and industrial hygiene practices. For the general public, it involves the use of practices and procedures designed to reduce the transport of radioactive and hazardous materials off-site. These include use of dust suppressants during excavation; use of containment structures, where necessary; and other similar measures to control the spread of these materials.

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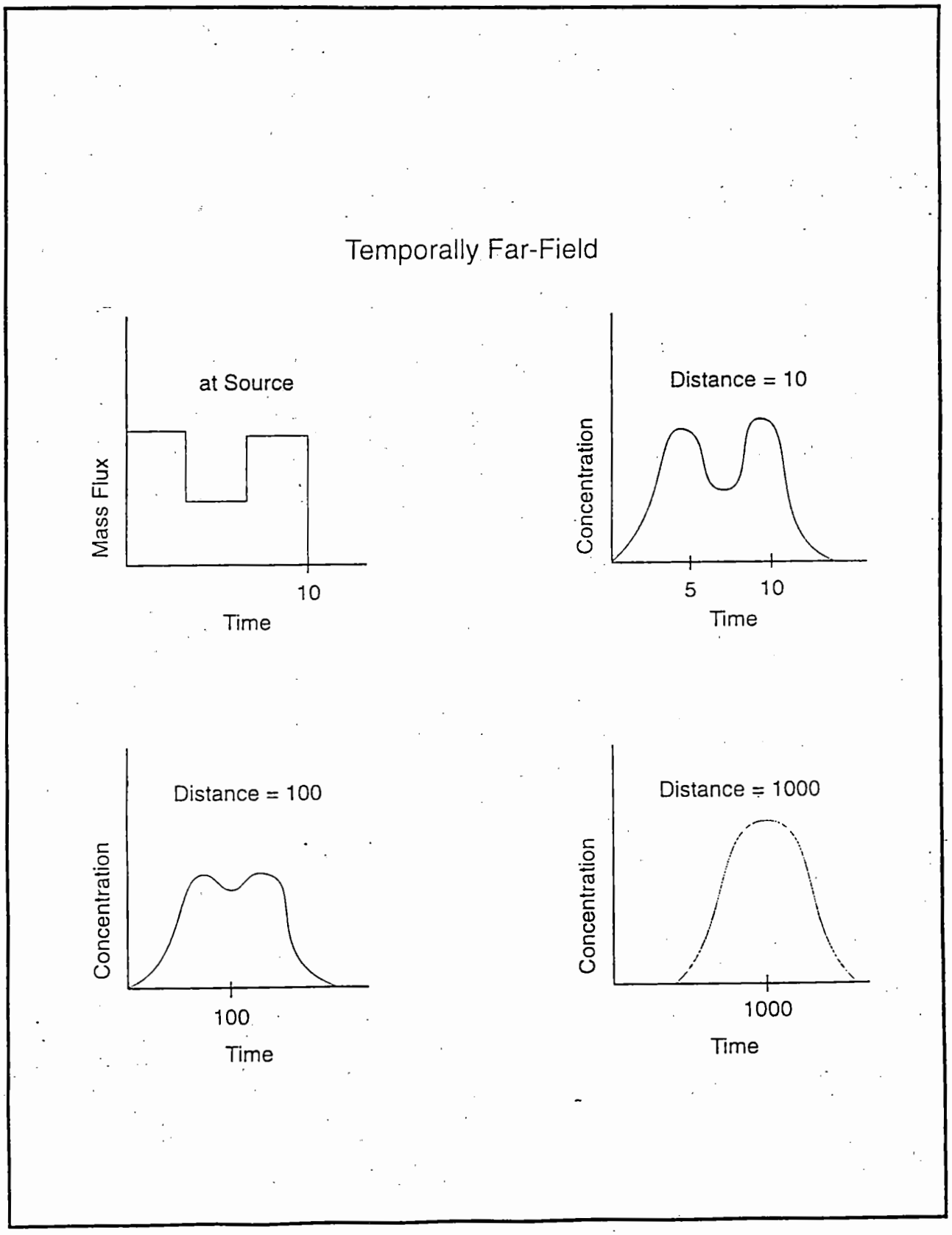
[1]Risk refers to the statistical increase in the individual land user cancer rate.

*Figure B5-2. Far-field Distribution as Function of Time.*



The combination of compliance with all laws and regulations and the use of good health physics and industrial hygiene practices would ensure that exposures to radioactive and hazardous chemicals, as a result of routine remediation activities, remain below applicable regulatory and administrative limits. Therefore, this EIS does not assess risk from routine remediation activities. In addition, since this EIS evaluates impacts from broad remediation strategies applied over large geographic areas containing many waste sites, it is not suited to the evaluation of risk due to routine remediation activities at specific waste sites. Evaluation of risk to workers and the public due to routine remediation activities at specific waste sites would be addressed by the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) remedial investigation and feasibility study process as a part of its analysis of short-term consequences.

### *B5.3.2 Accident Risk*

Risk due to accidents during, or as a result of, remediation activities is not as easy to mitigate as risk associated with routine remediation activities. This EIS analyzes several possible accident scenarios that could result in the release of hazardous and radioactive materials to the environment.

Since the potential discrete sources are not well characterized and since there are many potential remediation methods, each with various possible failure modes, defining and systematically analyzing the spectrum of credible accident scenarios would be a complex undertaking that would yield results with low confidence. As a result, the approach taken was to analyze bounding accidents only, using simplified but realistically conservative source terms and release parameters.

*B5.3.2.1 Scenarios, Assumptions, and Source Terms.* Three representative accident scenarios that may occur during remediation were evaluated. These accidents are postulated to result from:

- excavating the river shoreline sediments
- pumping and treating contaminated groundwater
- excavating radioactive/hazardous waste sites.

In general, the proposed remediation technologies and, therefore, the accident scenarios are applicable to more than one remediation alternative. However, the degree or scale of application of the remediation technology is directly related to the specific alternative. It is reasonable to assume that the probability of an excavation accident is a function of the total amount of soil excavated. As a result, the probability of an accident occurring, rather than the severity of the accident, is a function of the remediation alternative. In general, unrestricted use alternatives that require the greatest application of a remedial technology would have the highest probability of an accident occurring. Alternatives involving the most restricted use of the land and, therefore, minimum remediation have the lowest probability for an accident. For the accidents proposed, the probabilities of occurrence would be expected to vary from unlikely to very unlikely ($10^{-6}$ to $10^{-2}$ occurrences per year of operation) based on DOE Order 5480.23, LA-10294-MS (LANL 1986) and the *Preparation Handbook for U.S. Department of Energy Non-reactor Nuclear Facility Safety Analysis Reports* (DOE 1993b).

In addition to accidents resulting from remediation activities, one accident scenario was evaluated for the No-Action Alternative. This accident scenario is a range fire that burns a 2.6 $km^2$ (1 $mi^2$) area of the site, and releases hazardous materials incorporated in range vegetation. This accident is

considered because of the high likelihood of occurrence (approximately once every 10 years) and its lack of dependence on the alternative selected. Other similar alternative independent accident scenarios (such as result from widespread natural occurrences like earthquakes, floods, and tornadoes) were not considered because they are either incredible, or the accident itself would do greater damage than the subsequent release. Such significant catastrophic accidents have been fully analyzed for more significant source terms and presented in various Hanford safety documents such as the *200-West Area Carbon Tetrachloride Expedited Response Actions* (WHC 1977), *Soils Physical Separations Treatability Safety Assessment for 100 and 300 Areas* [WHC No date(a)], *Safety Assessment 618-9 Burial Ground ERA Phase I* [WHC No date(b)], *Safety Evaluation on the Demolition of the 185-B and 190-B Facilities* (WHC 1993a), *Safety Assessment for the N-Springs Expedited Response Action* (WHC 1993b), and *Safety Assessment of the Environmental Analytical Laboratory* (WHC 1993c).

Source terms used for those selected accidents involving contaminated soil were the highest concentrations of all contaminants identified in the geographic area considered in the accident scenario. These concentrations were used to construct source terms for both the river shoreline excavation and the soil dispersal accidents (Table B5-8). Source terms for the groundwater remediation accident were determined in a similar manner. Table B5-9 provides the maximum concentration of each of the constituents in the groundwater.

For the range-fire accident, the source term was based on the uptake of contaminants through the root system of plants. The source term was derived from the measured contaminant concentrations provided in the *Hanford Site Environmental Report for Calendar Year 1992* (Woodruff and Hanf 1993) and the average plant mass observed in the Hanford Shrub-Steppe terrestrial ecosystem (Rickard et al. 1988). Table B5-10 summarizes these contaminant concentrations.

A summary of the assumptions used to calculate impacts for these accidents follows.

- Only airborne transport and river transport are considered as credible pathways for exposure.

- Accidents involving airborne releases from contaminated soil source terms are evaluated for the following areas (hereafter referred to as operating areas):

  - 100 Area sites B/C, K, N, DR, H, and F

  - 200-East and 200-West areas

  - 300 Area

  - 400 Area.

- Values for the meteorological dispersion of contaminants released to the atmosphere were computed using the Nuclear Regulatory Commission (NRC) Regulatory Guide 1.145 method. Conservative "worst case" transport conditions were assumed (as is appropriate for accidental acute releases). These 99.5 percentile dispersion values (X/Q values) are exceeded no more than 44 hours in a year. All of the X/Q values are computed using ground-level wind data collected in each of the operating areas during the years 1983 to 1991. The atmospheric stability class is based on the temperature gradients measured at the Hanford Meteorological Station located east of the 200-West Area.

- For all areas considered, airborne releases were transported to receptors at the 100 m (328 ft) location (location of affected workers), nearest point of public access, and site boundary location with the highest estimated airborne concentrations. All personnel are considered to be outdoors during the accident. Individual exposures are based on centerline X/Q values. Distances to the site boundary and to the nearest public access locations (NPAL) were computed for each wind direction. The NPAL are along the Columbia River, State Highway 240, and the roads leading to the Wye barricade. Population exposures use sector-averaged 99.5 percentile X/Q values. The sectors are 22.5 degrees each. The sector-averaged X/Q at various population distances are multiplied by the population in that distance range to give the collective normalized integrated dose in each sector.

- The on-site [100 m (328 ft)] and nearest public receptors are only exposed to airborne contamination. They receive external dose from the plume as it passes, and internal dose from inhaling the suspended activity. For airborne releases, the site boundary receptor also receives exposure from the activity deposited on the ground. This activity is absorbed by plants and becomes part of the individual's diet. The site boundary receptor is assumed to be a farmer who grows most of the food he eats.

- The probability of an accident occurring is primarily a function of the scale of remediation activities performed, which is directly related to the remediation goals.

The specific accident scenarios are described in the following subsections.

*B5.3.2.1.1 Excavation of River Shoreline.* During excavation of the riverbank to remove contaminated soil, some of the contaminated soil is inadvertently released to the river. This contamination is transported downriver to the water treatment facilities in Richland, Kennewick, and Pasco.

The maximally exposed off-site individual is a farmer who irrigates from the Columbia River to produce most of the food he consumes. This individual receives exposure from both recreational and agricultural activities. Recreational exposure occurs during swimming, boating, and while standing on the shoreline. The activity deposited on the ground increases the background dose rate and also is absorbed by plants that are part of the individual's diet. Inhalation of resuspended soil and consumption of animal products are also included in the dose pathways.

Population doses were computed using assumptions typical of the *Hanford Site Environmental Report*. A total fish harvest of 15 metric tons (16.5 tons) was assumed. Water was treated and consumption limited to 100,000 persons. Approximately 5,000 people were assumed to consume produce grown on land irrigated from the Columbia River.

Other assumptions were:

- the source term is the maximum concentration of contaminants found in the soil in the Reactors on the River geographic area

- the river flow is at a minimum, minimizing dilution

- fifty metric tons (55 tons) of contaminated soil is assumed to be accidentally washed into the river during an excavation operation and the contaminants are assumed to be released to and totally mixed with the river water.

*B5.3.2.1.2 Pumping and Treating Groundwater.* During reverse osmosis treatment, a fire destroys the filtration unit and releases the collected contaminants. The contaminants on the filtration unit are aerosolized and transported to the affected individuals and population.

Other assumptions are as follows.

- The amount of contaminated groundwater assumed processed at the time of the accident is 100,000 L (26,425 gal).
- The collection efficiency for all radioactive constituents except tritium is assumed to be 100 percent. Tritium is assumed not to be concentrated and is ignored in this accident analysis.
- The entire filter is destroyed and the entire contents are released to the atmosphere.
- One percent of the material released to the air remains airborne and is available for transport downwind.
- The assumed locations for the hypothetical treatment plant are all the operating areas.
- The maximum inventory of all the radioactive material identified in the groundwater in each operating area is assumed to be present in the water processed at each of the sites.
- The entire treatment process occurs outdoors without any building or containment to mitigate the release.

*B5.3.2.1.3 Excavation of Hazardous Waste Sites.* During the excavation of one of the waste sites, some unexpected reactive material is encountered and inadvertently detonated. The resulting explosion disperses 10 kg (22 lbs) of contaminated soil to the environment.

Other assumptions are as follows.

- The source term is the maximum concentration of the contaminants in contaminated soil found in that area. One percent of the total material involved is assumed to be aerosolized.
- The only pathway with the potential to cause risk to humans is the airborne pathway.

*B5.3.2.1.4 Range Fire Involving Contaminated Vegetation.* Vegetation with long root systems such as tumbleweed and rabbit grass send roots down into some burial sites. This accident scenario assumes that a range fire ignites all the vegetation in a 2.6-$km^2$ (1-$mi^2$) area of the Hanford Site. A fraction of the inventory of radioactive material is assumed to be released to the environment by the fire.

Additional assumptions.

- The undisturbed content of aboveground standing biomass is 500 $g/m^2$ (Rickard et al. 1988). The total biomass from cheatgrass communities is 465 $g/m^2$, and the biomass from Sagebrush-Bunchgrass communities is 426 $g/m^2$.
- The pathway with the potential to cause risk to humans is the airborne pathway.

- The fraction of the contaminants in the vegetation released to the atmosphere is 1 percent.

- The source term used is the maximum radionuclide concentrations listed in the *Hanford Site Environmental Report for Calendar Year 1992* (Woodruff and Hanf 1993).

- The moisture content of green plants is 75 percent. Dry mass of the vegetation is 25 percent.

- The duration of the fire is 1.0 hour.

- NRC Regulatory Guide 1.145 meteorology is used to determine the 99.5 percentile X/Q values.

- The release is assumed to be a ground-level, point-source release. While this would overestimate doses near the source, the point-source model closely approximates the releases at distances greater than 5 km (3.1 mi).

- The frequency of a range fire is conservatively estimated at once every 10 years (0.1 per year).

- Only one area of the Hanford Site is assumed to be on fire at any single time.

The source term developed for the accidental range fire was derived from the measured contaminant concentrations in plants and the mass of material per unit area of the site. The measured activity per unit mass in plants was converted to the total activity in a 2.6 $km^2$ (1 $mi^2$) area affected by a range fire. Table B5-10 provides the source term used for modeling the accidental range fire.

*B5.3.2.2 Accident Evaluation*. Accidents were evaluated by modeling the dispersion of the source term and the resulting exposure and dose to humans at the selected receptor sites. Unit dose conversion factors were generated using the GENII (Napier et al. 1988) environmental model. Doses resulting from these accidents are expressed in mrem committed effective dose equivalent (CEDE) for the on-site maximally exposed individual worker and individual member of the public at the point of nearest public access. Off-site doses are expressed in CEDE for the maximally exposed off-site individual at the point of the site boundary having the highest airborne concentrations of radionuclides. Population doses are expressed in collective CEDE for the population in the sector with the highest population dose. Only a single location was considered for the river shoreline excavation accident and the locations for the release were confined to the Reactors on the River area. The dose to the maximally exposed individual is 1.0 mrem and the collective population dose is 3.0 person-rem. Consequences of these accidents are expressed as increased probability of contracting a fatal cancer as a result of the dose received, in the case of an exposed individual, and as increased latent cancer fatalities in the case of an exposed population. The conversion factors used to convert from dose received to these consequences are $4 \times 10^{-4}$ latent cancer fatalities per person-rem for workers and $5 \times 10^{-4}$ latent cancer fatalities per person-rem for the general population. The difference in conversion factors is attributable to the presence of children in the general population (DOE 1993a). Tables B5-11, B5-12, and B5-13 present the maximum exposed individual doses at 100 m (328 ft), the highest NPAL dose with its associated distance, the highest site boundary dose, and the collective population dose for the other accident scenarios. These tables also present the increased probability of contracting a fatal cancer, for individuals receiving these doses, and the increase in latent cancer fatalities in the case of an exposed population. The values presented have not been adjusted by the probability of accident occurrence.

## *B5.4 Residual Risk*

Residual risk refers to risk due to residual contamination after remediation is completed. This risk cannot be assessed in detail until the specific remediation technologies and the resulting residual contaminant concentrations are evaluated in the CERCLA remedial investigation and feasibility study process. However, to put the major alternatives in perspective, simplifying assumptions regarding remediation effectiveness were made. These assumptions are:

- Residual risk remaining after remediation to unrestricted use is less than $10^{-6}$.

- Residual risk remaining after remediation to a restricted use alternative is less than $10^{-6}$ as long as the delineated restrictions are complied with. If these restrictions are not complied with, the residual risk would be greater and could range up to that under the No-Action Alternative, depending on the specifics of the particular remediation activities.

## *B5.5 Sources of Uncertainty*

There are three significant components needed to estimate human health risk from exposure to hazardous and radioactive contaminants. These components are the source terms, the transport and exposure model, and the conversion of exposure to probable health effects. Each one of these components relies on measurements and estimations that introduce potential inaccuracies. These separate sources of inaccuracy then combine to yield the total inaccuracy or uncertainty in the estimate of overall risk. Estimates of risk associated with potential accidents introduce a fourth component, the probability of occurrence. These uncertainties, as well as differences in source terms and exposure assumptions, can lead to differences in risk estimates for a given area of the Site in different documents. Comparisons of risk estimates in different documents are therefore difficult to make and should be treated with caution.

### *B5.5.1 Source Terms*

Source terms of hazardous and radioactive contaminants were determined by review of records and subsequently developed databases of material disposal and limited samples of environmental media. These data were subsequently manipulated (for disposal based values) or extrapolated (for sample based values) to develop concentrations of hazardous and radioactive contaminants in the Hanford Site soils and groundwater. Since many of these data are based on historical records, which vary greatly in completeness over time, or on limited sampling, significant sources of error are introduced. To minimize potential underestimates of risk introduced by these potential inaccuracies, subsequent manipulation of historical and sampled data has been conservatively performed. For example, if two or more sources of contaminant inventory at a specific site were in conflict and the conflict could not be satisfactorily resolved, the highest value was chosen. Errors inherent in the source terms dominate the overall uncertainty in the risk estimation.

### *B5.5.2 Transport and Exposure Models*

The uncertainties associated with model predictions are best analyzed by model validation. Model validation is based on comparing predicted values to measured values. Because of the complexity of the model, and because the end point of the model is exposure, which is difficult to

measure except for very limited aspects (such as direct exposure from a passing plume as measured by dosimeters), complete validation by comparison to field measurements is not possible. As a result supplementary techniques must be used to determine model uncertainties. Models such as the Multimedia Environmental Pollutant Assessment System (MEPAS) rely on the combination of many parameters to estimate exposure to a receptor from a hazardous or radioactive material. Each of these parameters has a known or expected distribution that can be combined to estimate the total uncertainty in the exposure values predicted by the code. Sensitivity and uncertainty analyses have been performed for the MEPAS code. The expected range of uncertainty introduced by the model is expected to be significantly less than that introduced by uncertainty in the source term. The double precision accuracy option in MEPAS was initially used and compared to single precision results. The results were identical, and single precision was therefore used for most runs to conserve time.

### *B5.5.3 Conversion of Exposure to Health Effects*

Exposure estimates must be converted to a measure of harm. Information used to determine these health effect estimators generally comes from the documented accidental (or war time) exposures of humans to typically very high levels of the hazardous or radioactive material or from tests conducted on laboratory animals. Extrapolations to typical environmental levels or to a human population contain many uncertainties. For example, assumptions must be made regarding the shape of the dose versus response curve and the validity of the extrapolation of animal results to humans. Variations in individual response to a harmful agent are also significant. As a result, statements as to the potential risk to an individual are more uncertain than statements of risk to the population in general. The range of uncertainty introduced by these exposure to risk conversion factors is anticipated to be somewhat greater than that introduced by the transport and exposure model.

### *B5.5.4 Accident Occurrence*

Except for well established and studied processes, it is generally difficult to determine the probability of an accident. Such determinations generally rely on having a well defined process that can be reduced to simpler processes for which there are established reliability and behavioral characteristics. These determinations most often use probabilistic risk assessment. Such assessments require definitive engineering designs and are labor intensive. Since the specific remediation methods for the alternatives in this EIS have not been selected, no specific designs are available for probabilistic risk assessments and rough qualitative ranges were estimated. Conservative source terms and transport and exposure models were selected to reduce the probability of underestimating the risk from accidents.

*Table B5-1. Selected Annual Dose Limits for Exposure to Ionizing Radiation.*[a]

| Dose Limit (mrem/yr) | Corresponding Estimated Lifetime Excess Cancer Risk[b] | Citation |
|---|---|---|
| 100 | $2 \times 10^{-3}$ | NRC: 10 CFR Part 20, Standards for Protection Against Radiation - applies to all radioactive sources and all exposure pathways.<br><br>DOE: Proposed 10 CFR 834, Radiation Protection of the Public and the Environment - applies to all radioactive sources and all exposure pathways. |
| 25 | $5 \times 10^{-4}$ | NRC: 10 CFR Part 61, Licensing Requirements for Land Disposal of Radioactive Waste - applies to all radioactive sources and all exposure pathways.<br><br>DOE: Proposed 10 CFR Part 834, Radiation Protection of the Public and the Environment - applies to all radioactive sources and all exposure pathways associated with waste management.<br><br>EPA: 40 CFR Part 190, Environmental Radiation Protection Standards for Nuclear Power Operations - applies to all radioactive sources and all exposure pathways. |
| 15 | $3 \times 10^{-4}$ | EPA: Proposed 40 CFR Part 191, Environmental Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Waste - applies to all radioactive sources and all exposure pathways. |
| 10 | $2 \times 10^{-4}$ | DOE: Proposed 10 CFR Part 834, Radiation Protection of the Public and the Environment - applies as a reporting requirement for all radioactive sources and pathways, and as a limit for all radionuclide sources via air emissions.<br><br>EPA: 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants — applies as a limit for all radionuclide sources via air emissions. |
| 4 | $7 \times 10^{-5}$ | EPA: 40 CFR Part 141, Interim Primary Drinking Water Regulations (1976) — applies as a limit on anthropogenic radionuclides in drinking water.<br><br>EPA: 40 CFR Parts 141 and 142, proposed rule for National Primary Drinking Water Regulations - Radionuclides — applies as a limit for all beta-gamma emitting radionuclides in drinking water. |

[a] Excludes annual radiation doses from natural background and medical sources. According to the National Council on Radiation Protection and Measurements Report No. 94 ("Exposure of the Population in the United States and Canada from Natural Background Radiation," published in 1987), background radiation exposure results in a dose of approximately 300 mrem/yr, or an estimated lifetime cancer risk of about $1 \times 10^{-2}$.

[b] Includes fatal and non-fatal cancers (i.e., cancer incidence). Calculated assuming a 30-year residential exposure duration consistent with EPA OSWER Directive 9285.6-03* and a cancer incidence risk conversion factor of $6 \times 10^{-7}$ per millirem, taken from EPA's "Risk Assessments Methodology, Environmental Impact Statement, NESHAPS for Radionuclides, Background Information Document — Volume I," EPA/520/1-89-005, September 1989.

* *Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors.* Interim Final, OSWER Directive 9285.6-03.

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 560141 | 1.11E+01 | | 2.60E+00 | | 1.23E-01 | | 6.88E-03 | |
| 560142 | 2.50E+01 | | 5.85E+00 | | 2.77E-01 | | 1.55E-02 | |
| 560144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 560145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 560146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 561141 | 1.11E+01 | | 2.60E+00 | | 1.23E-01 | | 6.88E-03 | |
| 561144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 561145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 561146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 562141 | 1.11E+01 | | 2.60E+00 | | 1.23E-01 | | 6.88E-03 | |
| 562144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 562145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 562146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 563143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 563144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 563145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 563146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 564134 | 2.10E+00 | 4.63E-05 | 2.09E+00 | 4.63E-05 | 1.55E+00 | 1.87E-05 | 4.73E-02 | 9.41E-07 |
| 564135 | 2.10E+00 | 4.63E-05 | 2.09E+00 | 4.63E-05 | 1.55E+00 | 1.87E-05 | 4.73E-02 | 9.41E-07 |
| 564136 | 2.10E+00 | 4.63E-05 | 2.09E+00 | 4.63E-05 | 1.55E+00 | 1.87E-05 | 4.73E-02 | 9.41E-07 |
| 564143 | | 2.21E-01 | | 2.21E-01 | | 2.77E-02 | | 1.41E-03 |
| 564144 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 564145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 565133 | 1.90E+00 | 1.28E-01 | 1.73E+00 | 1.17E-01 | 5.26E-01 | 2.45E-02 | 2.57E-02 | 1.72E-03 |
| 565134 | 2.36E+01 | 1.22E-03 | 2.35E+01 | 1.21E-03 | 1.62E+01 | 3.03E-04 | 5.10E-01 | 1.88E-05 |
| 565135 | 1.33E+02 | 2.93E-03 | 1.13E+02 | 2.92E-03 | 7.85E+01 | 1.06E-03 | 2.43E+00 | 5.63E-05 |
| 565136 | 4.86E+01 | 1.05E-03 | 2.93E+01 | 1.04E-03 | 1.64E+01 | 2.86E-04 | 5.25E-01 | 1.77E-05 |
| 565137 | 2.77E+01 | 4.05E-02 | 8.42E+00 | 3.43E-02 | 1.99E+00 | 9.17E-03 | 7.02E-02 | 6.46E-04 |
| 565143 | | 1.22E-01 | | 1.22E-01 | | 1.52E-02 | | 7.77E-04 |
| 565144 | 5.73E+00 | 5.31E-02 | 5.73E+00 | 5.31E-02 | 3.81E+00 | 6.70E-03 | 1.36E-01 | 6.31E-04 |
| 565145 | 3.12E-02 | 1.15E-02 | 3.12E-02 | 1.15E-02 | 2.09E-02 | 1.31E-03 | 7.38E-04 | 7.56E-05 |
| 566133 | 4.14E+00 | 4.02E-01 | 3.65E+00 | 3.75E-01 | 1.18E+00 | 7.94E-02 | 5.51E-02 | 5.65E-03 |
| 566134 | 9.52E+01 | 1.00E+00 | 5.21E+01 | 1.00E+00 | 2.03E+01 | 1.00E+00 | 8.69E-01 | 9.23E-02 |
| 566135 | 9.99E+02 | 1.00E+00 | 8.86E+02 | 1.00E+00 | 6.26E+02 | 1.00E+00 | 1.93E+01 | 1.07E-01 |
| 566136 | 5.84E+02 | 1.00E+00 | 4.73E+02 | 1.00E+00 | 3.16E+02 | 8.04E-01 | 9.98E+00 | 5.23E-02 |
| 566137 | 4.89E+02 | 5.16E-02 | 2.75E+02 | 4.55E-02 | 1.58E+02 | 1.17E-02 | 4.91E+00 | 7.85E-04 |
| 566142 | | 4.88E-06 | | 2.22E-06 | | 3.28E-07 | | 2.74E-08 |
| 566143 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 566144 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 566145 | | 7.53E-05 | | 6.20E-05 | | 9.85E-06 | | 8.15E-07 |
| 566146 | | 1.10E-05 | | 9.36E-06 | | 1.48E-06 | | 1.22E-07 |
| 567132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 567133 | 2.91E+01 | 6.54E-01 | 9.52E+00 | 6.27E-01 | 1.46E+00 | 1.10E-01 | 7.10E-02 | 7.67E-03 |
| 567134 | 5.12E+02 | 1.00E+00 | 2.97E+02 | 1.00E+00 | 1.51E+02 | 6.36E-01 | 5.55E+00 | 5.07E-02 |
| 567135 | 7.06E+02 | 8.26E-01 | 4.91E+02 | 8.23E-01 | 3.15E+02 | 1.40E-01 | 9.81E+00 | 9.03E-03 |
| 567136 | 5.03E+02 | 1.00E+00 | 2.89E+02 | 1.00E+00 | 1.60E+02 | 1.00E+00 | 5.20E+00 | 2.96E-01 |
| 567137 | 4.91E+02 | 9.31E-01 | 2.76E+02 | 9.24E-01 | 1.59E+02 | 1.25E-01 | 4.93E+00 | 8.15E-03 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 567138 | 5.76E+01 | 4.63E-05 | 1.51E+01 | 4.63E-05 | 2.16E+00 | 1.87E-05 | 8.17E-02 | 9.41E-07 |
| 567142 | | 4.88E-06 | | 2.22E-06 | | 3.28E-07 | | 2.74E-08 |
| 567143 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 567144 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 567145 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 567146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 568132 | | 4.20E-05 | | 3.06E-05 | | 6.37E-06 | | 5.34E-07 |
| 568133 | | 2.46E-03 | | 1.99E-03 | | 4.26E-04 | | 3.57E-05 |
| 568134 | 1.41E+02 | 5.86E-03 | 3.46E+01 | 4.53E-03 | 3.09E+00 | 8.00E-04 | 1.33E-01 | 6.62E-05 |
| 568135 | 2.99E+02 | 2.36E-03 | 8.59E+01 | 1.71E-03 | 1.86E+01 | 2.74E-04 | 6.45E-01 | 1.65E-05 |
| 568136 | 2.80E+02 | 8.06E-05 | 6.71E+01 | 7.35E-05 | 4.63E+00 | 2.44E-05 | 2.19E-01 | 1.42E-06 |
| 568137 | 1.50E+02 | 2.66E-04 | 4.29E+01 | 2.59E-04 | 9.29E+00 | 9.92E-05 | 3.23E-01 | 5.18E-06 |
| 568138 | 2.71E+01 | 4.63E-05 | 7.94E+00 | 4.63E-05 | 1.83E+00 | 1.87E-05 | 6.28E-02 | 9.41E-07 |
| 568142 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 568143 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 568144 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 568145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 568146 | 5.55E+01 | 5.78E-05 | 1.30E+01 | 5.58E-05 | 6.15E-01 | 6.64E-06 | 3.44E-02 | 4.37E-07 |
| 568147 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 569132 | | 4.20E-05 | | 3.06E-05 | | 6.37E-06 | | 5.34E-07 |
| 569133 | | 5.46E-04 | | 3.63E-04 | | 7.33E-05 | | 6.14E-06 |
| 569134 | 5.76E+01 | 6.80E-04 | 1.51E+01 | 4.49E-04 | 2.16E+00 | 9.79E-05 | 8.17E-02 | 7.58E-06 |
| 569135 | 5.76E+01 | 3.58E-04 | 1.51E+01 | 3.04E-04 | 2.16E+00 | 7.42E-05 | 8.17E-02 | 5.59E-06 |
| 569136 | 5.55E+01 | 3.43E-05 | 1.30E+01 | 2.72E-05 | 6.15E-01 | 5.75E-06 | 3.44E-02 | 4.81E-07 |
| 569137 | 2.50E+01 | | 5.85E+00 | | 2.77E-01 | | 1.55E-02 | |
| 569140 | | 3.00E-01 | | 3.00E-01 | | 2.96E-02 | | 1.93E-03 |
| 569142 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 569143 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 569144 | 1.11E+01 | 6.35E-06 | 2.60E+00 | 3.47E-06 | 1.23E-01 | 5.99E-07 | 6.88E-03 | 5.01E-08 |
| 569145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 569146 | 9.71E+01 | 5.21E-02 | 8.86E+01 | 5.20E-02 | 1.28E+01 | 6.54E-03 | 1.85E+00 | 3.35E-04 |
| 569147 | 4.95E+01 | 3.62E-01 | 4.08E+01 | 3.52E-01 | 2.54E+01 | 5.30E-02 | 9.02E-01 | 5.14E-03 |
| 569148 | 1.12E+00 | 7.77E-02 | 9.61E-01 | 6.63E-02 | 3.29E-01 | 1.79E-02 | 1.47E-02 | 1.29E-03 |
| 570132 | | 4.20E-05 | | 3.06E-05 | | 6.37E-06 | | 5.34E-07 |
| 570133 | | 3.07E-04 | | 2.56E-04 | | 5.52E-05 | | 4.62E-06 |
| 570134 | 5.55E+01 | 3.11E-04 | 1.30E+01 | 2.58E-04 | 6.15E-01 | 5.55E-05 | 3.44E-02 | 4.65E-06 |
| 570135 | 5.55E+01 | 3.11E-04 | 1.30E+01 | 2.58E-04 | 6.15E-01 | 5.55E-05 | 3.44E-02 | 4.65E-06 |
| 570136 | 2.50E+01 | 3.43E-05 | 5.85E+00 | 2.72E-05 | 2.77E-01 | 5.75E-06 | 1.55E-02 | 4.81E-07 |
| 570137 | 2.50E+01 | | 5.85E+00 | | 2.77E-01 | | 1.55E-02 | |
| 570139 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 570140 | | 3.06E-03 | | 3.05E-03 | | 4.35E-04 | | 2.84E-05 |
| 570141 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 570142 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 570143 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 570144 | 1.11E+01 | 6.35E-06 | 2.60E+00 | 3.47E-06 | 1.23E-01 | 5.99E-07 | 6.88E-03 | 5.01E-08 |
| 570145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 570146 | 5.60E-01 | 4.05E-02 | 4.81E-01 | 3.43E-02 | 1.64E-01 | 9.15E-03 | 7.35E-03 | 6.45E-04 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 570147 | 1.22E+01 | 7.77E-02 | 3.56E+00 | 6.63E-02 | 4.52E-01 | 1.79E-02 | 2.16E-02 | 1.29E-03 |
| 570148 | 1.12E+00 | 7.77E-02 | 9.61E-01 | 6.63E-02 | 3.29E-01 | 1.79E-02 | 1.47E-02 | 1.29E-03 |
| 570149 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 571132 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 571133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 571134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 571135 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 571136 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 571137 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 571139 | 2.50E+01 | 8.93E-05 | 5.85E+00 | 4.12E-05 | 2.77E-01 | 6.16E-06 | 1.55E-02 | 5.17E-07 |
| 571140 | 2.50E+01 | 4.51E-03 | 5.85E+00 | 4.46E-03 | 2.77E-01 | 6.31E-04 | 1.55E-02 | 4.12E-05 |
| 571141 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 571142 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 571143 | 1.11E+01 | 6.35E-06 | 2.60E+00 | 3.47E-06 | 1.23E-01 | 5.99E-07 | 6.88E-03 | 5.01E-08 |
| 571144 | 1.11E+01 | 6.35E-06 | 2.60E+00 | 3.47E-06 | 1.23E-01 | 5.99E-07 | 6.88E-03 | 5.01E-08 |
| 571145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 571146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 571147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 571148 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 571149 | 2.50E+01 | 1.00E+00 | 5.85E+00 | 1.00E+00 | 2.77E-01 | 1.19E-01 | 1.55E-02 | 6.68E-03 |
| 571150 | | 9.84E-05 | | 8.35E-05 | | 1.47E-05 | | 1.22E-06 |
| 572133 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572134 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 572136 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 572137 | 2.58E+01 | 5.57E-04 | 6.62E+00 | 4.62E-04 | 4.74E-01 | 8.97E-05 | 2.65E-02 | 7.51E-06 |
| 572138 | 2.58E+01 | 2.77E-04 | 6.62E+00 | 2.19E-04 | 4.74E-01 | 3.67E-05 | 2.65E-02 | 3.08E-06 |
| 572139 | 2.50E+01 | 8.93E-05 | 5.85E+00 | 4.12E-05 | 2.77E-01 | 6.16E-06 | 1.55E-02 | 5.17E-07 |
| 572140 | 5.55E+01 | 8.93E-05 | 1.30E+01 | 4.12E-05 | 6.15E-01 | 6.16E-06 | 3.44E-02 | 5.17E-07 |
| 572141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572142 | 1.11E+01 | 6.35E-06 | 2.60E+00 | 3.47E-06 | 1.23E-01 | 5.99E-07 | 6.88E-03 | 5.01E-08 |
| 572143 | 1.11E+01 | 6.35E-06 | 2.60E+00 | 3.47E-06 | 1.23E-01 | 5.99E-07 | 6.88E-03 | 5.01E-08 |
| 572144 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 572145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572148 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 572149 | 1.11E+01 | 9.84E-05 | 2.60E+00 | 8.35E-05 | 1.23E-01 | 1.47E-05 | 6.88E-03 | 1.22E-06 |
| 572150 | 1.22E+01 | 2.49E-01 | 3.56E+00 | 2.38E-01 | 4.52E-01 | 3.95E-02 | 2.16E-02 | 2.39E-03 |
| 572151 | 2.61E+01 | 7.77E-02 | 6.81E+00 | 6.63E-02 | 6.06E-01 | 1.79E-02 | 3.02E-02 | 1.29E-03 |
| 572152 | 1.12E+00 | 7.77E-02 | 9.61E-01 | 6.63E-02 | 3.29E-01 | 1.79E-02 | 1.47E-02 | 1.29E-03 |
| 573134 | 5.93E+00 | 1.00E+00 | 5.93E+00 | 1.00E+00 | 6.45E-01 | 1.00E+00 | 1.15E-01 | 2.17E-01 |
| 573135 | 1.45E+00 | 6.36E-04 | 1.43E+00 | 5.80E-04 | 4.41E-01 | 1.27E-04 | 2.18E-02 | 9.72E-06 |
| 573136 | 1.19E+02 | 1.00E+00 | 7.67E+01 | 1.00E+00 | 2.62E+01 | 7.97E-01 | 1.43E+00 | 5.28E-02 |
| 573137 | 1.51E+02 | 1.00E+00 | 1.32E+02 | 1.00E+00 | 1.38E+01 | 7.60E-01 | 2.54E+00 | 4.97E-02 |
| 573138 | 1.51E+02 | 2.19E-03 | 4.45E+01 | 1.11E-03 | 4.43E+00 | 1.68E-04 | 1.79E-01 | 1.41E-05 |
| 573139 | 5.63E+01 | 4.80E-04 | 1.38E+01 | 3.28E-04 | 8.12E-01 | 5.38E-05 | 4.54E-02 | 4.51E-06 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 573140 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 573141 | | 8.49E-04 | | 7.74E-04 | | 5.44E-05 | | 4.59E-04 |
| 573142 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 573143 | | 6.35E-06 | | 3.47E-06 | | 5.99E-07 | | 5.01E-08 |
| 573144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 573145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 573146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 573147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 573148 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 573149 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 573150 | 2.50E+01 | 9.28E-03 | 5.85E+00 | 9.28E-03 | 2.77E-01 | 1.18E-03 | 1.55E-02 | 5.95E-05 |
| 573151 | 4.48E+01 | 5.15E-01 | 2.41E+01 | 4.80E-01 | 8.15E+00 | 1.65E-01 | 3.57E-01 | 1.36E-02 |
| 573152 | 6.68E+01 | 4.35E-01 | 2.27E+01 | 4.00E-01 | 3.99E+00 | 1.54E-01 | 1.85E-01 | 1.27E-02 |
| 574132 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574133 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574134 | 1.19E+01 | 4.97E-04 | 3.37E+00 | 4.39E-04 | 3.20E-01 | 8.66E-05 | 1.79E-02 | 7.25E-06 |
| 574135 | 5.63E+01 | 1.75E-01 | 1.38E+01 | 1.75E-01 | 8.12E-01 | 2.97E-02 | 4.54E-02 | 1.94E-03 |
| 574136 | 4.18E+01 | 1.05E-01 | 2.27E+01 | 1.05E-01 | 5.74E+00 | 3.75E-02 | 4.64E-01 | 2.43E-03 |
| 574137 | 1.30E+00 | 3.38E-04 | 1.28E+00 | 3.19E-04 | 3.29E-01 | 5.60E-05 | 1.84E-02 | 4.69E-06 |
| 574138 | 6.00E+01 | 5.60E-04 | 1.75E+01 | 2.77E-04 | 1.70E+00 | 4.20E-05 | 6.72E-02 | 3.53E-06 |
| 574139 | 2.83E-02 | 9.39E-02 | 6.63E-03 | 9.39E-02 | 3.14E-04 | 1.06E-02 | 1.75E-05 | 6.91E-04 |
| 574140 | 2.55E-02 | 1.25E-05 | 5.98E-03 | 1.06E-05 | 2.83E-04 | 1.75E-06 | 1.58E-05 | 1.45E-07 |
| 574141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574142 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574148 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 574149 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 574150 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 574151 | 2.61E+01 | 7.77E-02 | 6.81E+00 | 6.63E-02 | 6.06E-01 | 1.79E-02 | 3.02E-02 | 1.29E-03 |
| 574152 | 5.69E+01 | 2.44E-01 | 1.42E+01 | 2.32E-01 | 1.12E+00 | 3.53E-02 | 5.51E-02 | 2.37E-03 |
| 574153 | 1.22E+01 | 7.77E-02 | 3.56E+00 | 6.63E-02 | 4.52E-01 | 1.79E-02 | 2.16E-02 | 1.29E-03 |
| 574154 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575131 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 575133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 575134 | 1.19E+01 | 4.97E-04 | 3.37E+00 | 4.39E-04 | 3.20E-01 | 8.66E-05 | 1.79E-02 | 7.25E-06 |
| 575135 | 1.46E+02 | 1.00E+00 | 3.90E+01 | 1.00E+00 | 3.68E+00 | 5.48E-01 | 2.09E-01 | 3.61E-02 |
| 575136 | 6.39E+01 | 1.00E+00 | 2.11E+01 | 1.00E+00 | 3.63E+00 | 1.44E-01 | 2.11E-01 | 9.67E-03 |
| 575137 | 7.80E-01 | 9.42E-04 | 7.68E-01 | 9.26E-04 | 1.97E-01 | 3.99E-04 | 1.10E-02 | 2.65E-05 |
| 575139 | 5.55E+01 | 1.25E-05 | 1.30E+01 | 1.06E-05 | 6.15E-01 | 1.75E-06 | 3.44E-02 | 1.45E-07 |
| 575140 | 2.50E+01 | 1.25E-05 | 5.85E+00 | 1.06E-05 | 2.77E-01 | 1.75E-06 | 1.55E-02 | 1.45E-07 |
| 575141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575142 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 575143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575148 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575149 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575150 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 575152 | 1.17E+01 | 4.05E-02 | 3.08E+00 | 3.43E-02 | 2.87E-01 | 9.15E-03 | 1.42E-02 | 6.45E-04 |
| 575153 | 5.60E-01 | 4.05E-02 | 4.81E-01 | 3.43E-02 | 1.64E-01 | 9.15E-03 | 7.35E-03 | 6.45E-04 |
| 575154 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576130 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 576131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 576132 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 576133 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 576134 | 7.80E-01 | 2.17E-04 | 7.68E-01 | 2.03E-04 | 1.97E-01 | 3.60E-05 | 1.10E-02 | 3.01E-06 |
| 576135 | 2.60E+00 | 6.24E-04 | 2.56E+00 | 6.03E-04 | 6.58E-01 | 1.05E-04 | 3.68E-02 | 8.79E-06 |
| 576136 | 1.30E+00 | 4.10E-01 | 1.28E+00 | 2.20E-01 | 3.29E-01 | 2.91E-02 | 1.84E-02 | 2.65E-02 |
| 576137 | 7.80E-01 | 2.15E-04 | 7.68E-01 | 2.06E-04 | 1.97E-01 | 3.65E-05 | 1.10E-02 | 3.06E-06 |
| 576138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576139 | 5.55E+01 | 1.25E-05 | 1.30E+01 | 1.06E-05 | 6.15E-01 | 1.75E-06 | 3.44E-02 | 1.45E-07 |
| 576140 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 576142 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576146 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576148 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576149 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576150 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576151 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 576152 | 1.22E+01 | 7.77E-02 | 3.56E+00 | 6.63E-02 | 4.52E-01 | 1.79E-02 | 2.16E-02 | 1.29E-03 |
| 576153 | 1.22E+01 | 7.77E-02 | 3.56E+00 | 6.63E-02 | 4.52E-01 | 1.79E-02 | 2.16E-02 | 1.29E-03 |
| 576154 | 1.12E+00 | 7.77E-02 | 9.61E-01 | 6.63E-02 | 3.29E-01 | 1.79E-02 | 1.47E-02 | 1.29E-03 |
| 577128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577130 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 577131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 577132 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 577133 | 1.11E+01 | 3.57E-04 | 2.60E+00 | 2.78E-04 | 1.23E-01 | 5.90E-05 | 6.88E-03 | 4.94E-06 |
| 577134 | | 4.20E-05 | | 3.06E-05 | | 6.37E-06 | | 5.34E-07 |
| 577135 | 7.80E-01 | 2.04E-04 | 7.68E-01 | 1.97E-04 | 1.97E-01 | 3.50E-05 | 1.10E-02 | 2.93E-06 |
| 577136 | 1.30E+00 | 3.20E-04 | 1.28E+00 | 3.11E-04 | 3.29E-01 | 5.47E-05 | 1.84E-02 | 4.58E-06 |
| 577137 | 7.80E-01 | 2.04E-04 | 7.68E-01 | 1.97E-04 | 1.97E-01 | 3.50E-05 | 1.10E-02 | 2.93E-06 |
| 577138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 577140 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577142 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577145 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577146 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 577147 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 577148 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 577149 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577150 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577151 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 577152 | 2.07E+01 | 1.77E-01 | 1.21E+01 | 1.66E-01 | 5.72E+00 | 3.07E-02 | 2.19E-01 | 2.34E-03 |
| 577153 | 1.11E+01 | 1.83E-06 | 2.60E+00 | 1.57E-06 | 1.23E-01 | 2.79E-07 | 6.88E-03 | 2.33E-08 |
| 578125 | 1.11E+01 | | 2.60E+00 | | 1.23E-01 | | 6.88E-03 | |
| 578127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578129 | 1.11E+01 | 3.36E-05 | 2.60E+00 | 2.92E-05 | 1.23E-01 | 7.51E-06 | 6.88E-03 | 5.48E-07 |
| 578130 | 1.19E+01 | 2.09E-04 | 3.37E+00 | 2.01E-04 | 3.20E-01 | 3.71E-05 | 1.79E-02 | 3.03E-06 |
| 578131 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 578132 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 578133 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 578134 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 578135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 578136 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 578137 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578142 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578145 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 578146 | 2.50E+01 | 3.06E-05 | 5.85E+00 | 3.04E-05 | 2.77E-01 | 1.49E-05 | 1.55E-02 | 6.84E-07 |
| 578147 | 2.50E+01 | 3.06E-05 | 5.85E+00 | 3.04E-05 | 2.77E-01 | 1.49E-05 | 1.55E-02 | 6.84E-07 |
| 578148 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 578149 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 578150 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 578151 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 578152 | 2.65E+01 | 7.98E-02 | 7.19E+00 | 6.84E-02 | 8.58E-01 | 1.82E-02 | 3.91E-02 | 1.32E-03 |
| 578153 | 1.12E+00 | 7.77E-02 | 9.61E-01 | 6.63E-02 | 3.29E-01 | 1.79E-02 | 1.47E-02 | 1.29E-03 |
| 579126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579128 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 579129 | 1.11E+01 | 4.62E-05 | 2.60E+00 | 3.48E-05 | 1.23E-01 | 8.47E-06 | 6.88E-03 | 6.29E-07 |
| 579130 | 1.19E+01 | 5.02E-04 | 3.37E+00 | 4.48E-04 | 3.20E-01 | 9.53E-05 | 1.79E-02 | 7.57E-06 |
| 579131 | 1.19E+01 | 4.82E-04 | 3.37E+00 | 4.28E-04 | 3.20E-01 | 8.48E-05 | 1.79E-02 | 7.10E-06 |
| 579132 | 1.11E+01 | 3.07E-04 | 2.60E+00 | 2.56E-04 | 1.23E-01 | 5.52E-05 | 6.88E-03 | 4.62E-06 |
| 579133 | 1.11E+01 | 4.20E-05 | 2.60E+00 | 3.06E-05 | 1.23E-01 | 6.37E-06 | 6.88E-03 | 5.34E-07 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 579134 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 579135 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579136 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579137 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579142 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579143 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579144 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579145 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 579146 | 5.55E+01 | 3.06E-05 | 1.30E+01 | 3.04E-05 | 6.15E-01 | 1.49E-05 | 3.44E-02 | 6.84E-07 |
| 579147 | 5.55E+01 | 1.79E-02 | 1.30E+01 | 1.79E-02 | 6.15E-01 | 2.27E-03 | 3.44E-02 | 1.15E-04 |
| 579148 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 579149 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 579150 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 579151 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580125 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580127 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 580128 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 580129 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 580130 | 1.11E+01 | 2.94E-04 | 2.60E+00 | 2.50E-04 | 1.23E-01 | 5.42E-05 | 6.88E-03 | 4.54E-06 |
| 580131 | 1.11E+01 | 2.94E-04 | 2.60E+00 | 2.50E-04 | 1.23E-01 | 5.42E-05 | 6.88E-03 | 4.54E-06 |
| 580132 | 1.11E+01 | 2.94E-04 | 2.60E+00 | 2.50E-04 | 1.23E-01 | 5.42E-05 | 6.88E-03 | 4.54E-06 |
| 580133 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 580134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 580135 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580136 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 580137 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 580142 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 580143 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 580144 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 580145 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 580146 | 5.55E+01 | 4.60E-05 | 1.30E+01 | 4.16E-05 | 6.15E-01 | 1.38E-05 | 3.44E-02 | 8.32E-07 |
| 580147 | 6.10E+01 | 7.33E-02 | 1.85E+01 | 7.33E-02 | 1.82E+00 | 9.19E-03 | 1.46E-01 | 5.29E-04 |
| 580148 | 1.11E+01 | 1.25E-05 | 2.60E+00 | 1.06E-05 | 1.23E-01 | 1.75E-06 | 6.88E-03 | 1.45E-07 |
| 581124 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 581125 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 581126 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 581127 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 581128 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 581129 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 581130 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 581131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 581132 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 581133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 581134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 581135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 581136 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 581137 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 581138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 581139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 581141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 581142 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 581143 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 581144 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 581145 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 581146 | 5.55E+01 | 8.96E-06 | 1.30E+01 | 8.74E-06 | 6.15E-01 | 4.03E-06 | 3.44E-02 | 1.93E-07 |
| 581147 | 2.52E+01 | 1.97E-03 | 6.07E+00 | 1.96E-03 | 4.28E-01 | 2.40E-04 | 2.08E-02 | 2.48E-05 |
| 581148 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 582123 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 582124 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 582125 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582126 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582127 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 582128 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 582129 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 582130 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 582131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 582132 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 582133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582136 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582137 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 582138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 582139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 582140 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 582141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 582142 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 582143 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 582144 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 582145 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 582146 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 582147 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 583122 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 583123 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 583124 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583125 | 1.11E+00 | 2.94E-05 | 2.60E-01 | 2.50E-05 | 1.23E-02 | 5.42E-06 | 6.88E-04 | 4.54E-07 |
| 583126 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 583127 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 583128 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 583129 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 583130 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 583131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 583132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583136 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583137 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 583138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 583139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 583140 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 583141 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 583142 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 583143 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 583144 | 5.55E+01 | 1.47E-06 | 1.30E+01 | 1.25E-06 | 6.15E-01 | 2.71E-07 | 3.44E-02 | 2.27E-08 |
| 584121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 584122 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 584123 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584124 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584125 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584126 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584127 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584128 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584129 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584130 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 584132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 584133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 584134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 584135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 584136 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 584137 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 584138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 584139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 584140 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 584141 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 584142 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 585121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 585122 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 585123 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 585124 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585125 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585126 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585127 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585128 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 585129 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585130 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 585132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 585133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 585134 | | 2.94E-04 | | 2.50E-04 | | 5.42E-05 | | 4.54E-06 |
| 585135 | | 2.94E-04 | | 2.50E-04 | | 5.42E-05 | | 4.54E-06 |
| 585136 | | 2.94E-04 | | 2.50E-04 | | 5.42E-05 | | 4.54E-06 |
| 585137 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 585138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 585139 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 585141 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 586120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 586121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 586122 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 586123 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 586124 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 586125 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 586126 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 586127 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 586128 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 586129 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 586130 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 586131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 586132 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 586133 | 1.11E+01 | 2.94E-04 | 2.60E+00 | 2.50E-04 | 1.23E-01 | 5.42E-05 | 6.88E-03 | 4.54E-06 |
| 586134 | 1.11E+01 | 2.94E-04 | 2.60E+00 | 2.50E-04 | 1.23E-01 | 5.42E-05 | 6.88E-03 | 4.54E-06 |
| 586135 | | 2.94E-04 | | 2.50E-04 | | 5.42E-05 | | 4.54E-06 |
| 586136 | | 2.94E-04 | | 2.50E-04 | | 5.42E-05 | | 4.54E-06 |
| 586137 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 586138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 587120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 587121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 587122 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 587123 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 587124 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 587125 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 587126 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 587127 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 587128 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 587129 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 587130 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 587131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 587132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 587133 | | 2.94E-04 | | 2.50E-04 | | 5.42E-05 | | 4.54E-06 |
| 587134 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 587135 | | 2.99E-04 | | 2.52E-04 | | 5.45E-05 | | 4.57E-06 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 587136 | | 2.99E-04 | | 2.52E-04 | | 5.45E-05 | | 4.57E-06 |
| 587137 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 587138 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 588120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 588121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 588122 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 588123 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 588124 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 588125 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 588126 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 588127 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 588128 | 2.50E+01 | 1.47E-06 | 5.85E+00 | 1.25E-06 | 2.77E-01 | 2.71E-07 | 1.55E-02 | 2.27E-08 |
| 588129 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 588130 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 588131 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 588132 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 588133 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 588134 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 588135 | | 2.99E-04 | | 2.52E-04 | | 5.45E-05 | | 4.57E-06 |
| 588136 | | 2.99E-04 | | 2.52E-04 | | 5.45E-05 | | 4.57E-06 |
| 588137 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 588138 | 1.11E+01 | | 2.60E+00 | | 1.23E-01 | | 6.88E-03 | |
| 589120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 589121 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 589122 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 589123 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 589124 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 589125 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 589126 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 589127 | 1.11E+01 | 2.89E-02 | 2.60E+00 | 2.89E-02 | 1.23E-01 | 3.65E-03 | 6.88E-03 | 1.85E-04 |
| 589128 | 1.11E+01 | 1.47E-06 | 2.60E+00 | 1.25E-06 | 1.23E-01 | 2.71E-07 | 6.88E-03 | 2.27E-08 |
| 589129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 589130 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 589131 | 2.50E+01 | 2.94E-05 | 5.85E+00 | 2.50E-05 | 2.77E-01 | 5.42E-06 | 1.55E-02 | 4.54E-07 |
| 589132 | 1.11E+01 | 2.94E-05 | 2.60E+00 | 2.50E-05 | 1.23E-01 | 5.42E-06 | 6.88E-03 | 4.54E-07 |
| 589133 | 1.11E+01 | 3.43E-05 | 2.60E+00 | 2.72E-05 | 1.23E-01 | 5.75E-06 | 6.88E-03 | 4.81E-07 |
| 589134 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 589135 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 589136 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 589137 | 1.11E+01 | 2.99E-04 | 2.60E+00 | 2.52E-04 | 1.23E-01 | 5.45E-05 | 6.88E-03 | 4.57E-06 |
| 589138 | 1.11E+01 | | 2.60E+00 | | 1.23E-01 | | 6.88E-03 | |
| 590119 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590121 | | 1.66E-02 | | 1.66E-02 | | 3.12E-03 | | 1.76E-04 |
| 590122 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 590123 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 590124 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 590125 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 590126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590130 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 590131 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 590132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 590133 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 590134 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 590135 | | 2.99E-04 | | 2.52E-04 | | 5.45E-05 | | 4.57E-06 |
| 590136 | | 2.99E-04 | | 2.52E-04 | | 5.45E-05 | | 4.57E-06 |
| 591119 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591121 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 591122 | 1.55E+01 | 2.94E-05 | 1.55E+01 | 2.50E-05 | 1.76E+00 | 5.42E-06 | 3.14E-01 | 4.54E-07 |
| 591123 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 591124 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 591125 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 591126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591130 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 591131 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 591132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 591133 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 591134 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 591135 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592116 | | 2.42E-01 | | 2.42E-01 | | 1.44E-01 | | 9.29E-03 |
| 592118 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592119 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592121 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592122 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592123 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592124 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592125 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592130 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 592131 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 592133 | | 3.43E-05 | | 2.72E-05 | | 5.75E-06 | | 4.81E-07 |
| 592134 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |

*Table B5-2. Statistical Increase in Individual Cancer Risk at T0 (year 1989). (13 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 593116 | | 2.05E-04 | | 1.83E-04 | | 8.52E-06 | | 5.23E-07 |
| 593117 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593118 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593119 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593120 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593122 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593123 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593124 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593125 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593130 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 593131 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 593132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 593133 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 594115 | 1.24E+01 | 8.67E-01 | 1.24E+01 | 8.67E-01 | 1.70E+00 | 1.71E-01 | 2.44E-01 | 8.84E-03 |
| 594116 | | 9.68E-01 | | 9.67E-01 | | 9.52E-02 | | 6.22E-03 |
| 594117 | | 1.84E-04 | | 1.62E-04 | | 4.50E-06 | | 3.29E-07 |
| 594118 | | 2.94E-06 | | 2.50E-06 | | 5.42E-07 | | 4.54E-08 |
| 594119 | | 2.94E-06 | | 2.50E-06 | | 5.42E-07 | | 4.54E-08 |
| 594120 | | 2.94E-06 | | 2.50E-06 | | 5.42E-07 | | 4.54E-08 |
| 594121 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594122 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594123 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594124 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594125 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594126 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594127 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594128 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594129 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594130 | | 1.47E-06 | | 1.25E-06 | | 2.71E-07 | | 2.27E-08 |
| 594131 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |
| 594132 | | 2.94E-05 | | 2.50E-05 | | 5.42E-06 | | 4.54E-07 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 490057 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490067 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490077 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490087 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490097 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490107 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490117 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490127 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490137 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490147 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490157 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 490167 | 0.00E+00 | 1.70E-12 | 0.00E+00 | 1.68E-12 | 0.00E+00 | 1.57E-13 | 0.00E+00 | 1.45E-14 |
| 490177 | 0.00E+00 | 2.51E-14 | 0.00E+00 | 1.74E-14 | 0.00E+00 | 5.09E-15 | 0.00E+00 | 2.37E-16 |
| 500057 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500067 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500077 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500087 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500097 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500107 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500117 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500127 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500137 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500147 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500157 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 500167 | 3.80E-04 | 1.98E-08 | 3.80E-04 | 1.98E-08 | 2.59E-04 | 8.20E-09 | 7.23E-06 | 6.15E-10 |
| 500177 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 500187 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 500197 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 500207 | 3.78E-04 | 1.88E-08 | 3.78E-04 | 1.88E-08 | 2.58E-04 | 7.86E-09 | 7.20E-06 | 5.84E-10 |
| 510057 | 3.82E-04 | 1.98E-08 | 3.82E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510067 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510077 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510087 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510097 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510107 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510117 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510127 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510137 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510147 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510157 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510167 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510177 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510187 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510197 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 510207 | 3.81E-04 | 1.98E-08 | 3.81E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520057 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520067 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520077 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 520087 | 3.83E-04 | 1.98E-03 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520097 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520107 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520117 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520127 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520137 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520147 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520157 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520167 | 3.82E-04 | 1.98E-08 | 3.82E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520177 | 3.82E-04 | 1.98E-08 | 3.82E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520187 | 3.82E-04 | 1.98E-08 | 3.82E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520197 | 3.82E-04 | 1.98E-08 | 3.82E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 520207 | 3.82E-04 | 1.98E-08 | 3.82E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530057 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530067 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530077 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530087 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530097 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530107 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530117 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530127 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530137 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530147 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530157 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530167 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530177 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530187 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530197 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 530207 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 540057 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540067 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540077 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540087 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540097 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540107 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540117 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540127 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540137 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540147 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 540157 | 1.11E-03 | 3.14E-08 | 1.11E-03 | 3.14E-08 | 7.59E-04 | 1.35E-08 | 2.12E-05 | 8.36E-10 |
| 540167 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 540177 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 540187 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 540197 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 540207 | 3.83E-04 | 1.98E-08 | 3.83E-04 | 1.98E-08 | 2.60E-04 | 8.20E-09 | 7.25E-06 | 6.15E-10 |
| 550057 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550067 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550077 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 550087 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550097 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550107 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550117 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550127 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550137 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550147 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550157 | 1.13E-03 | 8.40E-08 | 1.13E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 550167 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 550177 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 550187 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 550197 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 550207 | 1.13E-03 | 8.00E-08 | 1.13E-03 | 8.00E-08 | 7.59E-04 | 3.30E-08 | 2.12E-05 | 2.61E-09 |
| 560057 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560067 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560077 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560087 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560097 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560107 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560117 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560157 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560167 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560177 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560187 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560197 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 560207 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 561128 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561129 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561130 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561131 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561132 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561133 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561134 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561135 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561136 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561137 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561138 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561139 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561140 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561141 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561142 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561143 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561144 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561145 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561146 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561147 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561148 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561149 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 561150 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561151 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561152 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561153 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561154 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561155 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 561156 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 562128 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 562129 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 562130 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 562131 | 9.64E-03 | 1.34E-06 | 9.64E-03 | 1.34E-06 | 6.15E-03 | 5.40E-07 | 1.72E-04 | 4.64E-08 |
| 562132 | 9.64E-03 | 6.43E-06 | 9.64E-03 | 6.43E-06 | 6.15E-03 | 2.58E-06 | 1.72E-04 | 2.35E-07 |
| 562133 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562134 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562135 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562136 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562137 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562138 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562139 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562140 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562141 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562142 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562143 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562144 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562145 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562146 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562147 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562148 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562149 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562150 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562151 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562152 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562153 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562154 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562155 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 562156 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 563128 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 563129 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 563130 | 3.61E-02 | 6.85E-06 | 3.61E-02 | 6.85E-06 | 2.40E-02 | 2.77E-06 | 6.73E-04 | 2.43E-07 |
| 563131 | 3.61E-02 | 6.87E-06 | 3.61E-02 | 6.87E-06 | 2.40E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563132 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563133 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563134 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563135 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563136 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563137 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563138 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563139 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 563140 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563141 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563142 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563143 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563144 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563145 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563146 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563147 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563148 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563149 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563150 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563151 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563152 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563153 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563154 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563155 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 563156 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564128 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564129 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564130 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564131 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564132 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564133 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564134 | 3.94E-02 | 6.87E-06 | 3.94E-02 | 6.87E-06 | 2.41E-02 | 2.78E-06 | 6.73E-04 | 2.43E-07 |
| 564135 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564136 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564137 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564138 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564139 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564140 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564141 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564142 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564143 | 3.94E-02 | 4.92E-02 | 3.94E-02 | 4.92E-02 | 2.41E-02 | 5.82E-03 | 6.73E-04 | 3.16E-04 |
| 564144 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564145 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564146 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564147 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564148 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564149 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564150 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564151 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564152 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564153 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564154 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564155 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 564156 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 565128 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 565129 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 565130 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.73E-04 | 2.45E-07 |
| 565131 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.74E-04 | 2.45E-07 |
| 565132 | 3.94E-02 | 6.94E-06 | 3.94E-02 | 6.94E-06 | 2.41E-02 | 2.81E-06 | 6.74E-04 | 2.45E-07 |
| 565133 | 3.94E-02 | 3.39E-01 | 3.94E-02 | 3.39E-01 | 2.41E-02 | 5.46E-02 | 6.74E-04 | 3.55E-03 |
| 565134 | 1.67E-01 | 1.20E-04 | 1.67E-01 | 1.20E-04 | 1.11E-01 | 2.28E-05 | 3.10E-03 | 1.82E-06 |
| 565135 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565136 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565137 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565138 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565139 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565140 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565141 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565142 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565143 | 1.67E-01 | 3.70E-02 | 1.67E-01 | 3.70E-02 | 1.11E-01 | 4.33E-03 | 3.10E-03 | 2.38E-04 |
| 565144 | 1.91E-01 | 3.23E-02 | 1.91E-01 | 3.23E-02 | 1.14E-01 | 3.62E-03 | 3.55E-03 | 2.20E-04 |
| 565145 | 1.68E-01 | 3.60E-01 | 1.68E-01 | 3.60E-01 | 1.11E-01 | 3.93E-02 | 3.10E-03 | 2.38E-03 |
| 565146 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565147 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565148 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565149 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565150 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565151 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565152 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565153 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565154 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565155 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 565156 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566128 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566129 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566130 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566131 | 1.67E-01 | 3.56E-05 | 1.67E-01 | 3.56E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566132 | 1.67E-01 | 3.57E-05 | 1.67E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566133 | 1.92E-01 | 1.00E+00 | 1.92E-01 | 1.00E+00 | 1.12E-01 | 3.32E-01 | 3.12E-03 | 2.16E-02 |
| 566134 | 1.91E-01 | 1.00E+00 | 1.91E-01 | 1.00E+00 | 1.11E-01 | 1.00E+00 | 3.11E-03 | 1.90E-01 |
| 566135 | 7.72E+01 | 1.00E+00 | 7.68E+01 | 1.00E+00 | 5.52E+01 | 1.00E+00 | 1.73E+00 | 1.00E+00 |
| 566136 | 1.46E+01 | 1.00E+00 | 1.26E+01 | 1.00E+00 | 2.57E+00 | 1.00E+00 | 2.58E-01 | 1.00E+00 |
| 566137 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566138 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566139 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566140 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566141 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566142 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566143 | 1.91E-01 | 7.30E-05 | 1.91E-01 | 6.75E-05 | 1.11E-01 | 2.13E-05 | 3.10E-03 | 1.85E-06 |
| 566144 | 1.91E-01 | 7.29E-05 | 1.91E-01 | 6.73E-05 | 1.11E-01 | 2.13E-05 | 3.10E-03 | 1.85E-06 |
| 566145 | 2.53E+01 | 7.41E-05 | 6.08E+00 | 6.83E-05 | 3.90E-01 | 2.15E-05 | 1.87E-02 | 1.86E-06 |
| 566146 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566147 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566148 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 566149 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566150 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566151 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566152 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566153 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566154 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566155 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 566156 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567128 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567129 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567130 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567131 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567132 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567133 | 5.13E-01 | 4.54E-01 | 4.96E-01 | 4.53E-01 | 2.94E-01 | 7.14E-02 | 9.19E-03 | 4.64E-03 |
| 567134 | 1.91E-01 | 1.00E+00 | 1.91E-01 | 1.00E+00 | 1.11E-01 | 1.00E+00 | 3.10E-03 | 7.38E-02 |
| 567135 | 7.29E+02 | 1.59E-02 | 7.25E+02 | 1.59E-02 | 5.38E+02 | 6.54E-03 | 1.64E+01 | 3.30E-04 |
| 567136 | 5.02E+01 | 1.00E+00 | 2.60E+01 | 1.00E+00 | 6.62E+00 | 7.19E-01 | 3.70E-01 | 4.65E-02 |
| 567137 | 1.91E-01 | 1.00E+00 | 1.91E-01 | 1.00E+00 | 1.11E-01 | 4.73E-01 | 3.10E-03 | 3.07E-02 |
| 567138 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567139 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567140 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567141 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567142 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567143 | 3.67E+01 | 9.33E-05 | 8.73E+00 | 8.47E-05 | 5.15E-01 | 2.50E-05 | 2.57E-02 | 2.16E-06 |
| 567144 | 3.88E+01 | 9.32E-05 | 9.22E+00 | 8.46E-05 | 5.38E-01 | 2.50E-05 | 2.70E-02 | 2.16E-06 |
| 567145 | 3.95E+01 | 9.02E-05 | 9.39E+00 | 8.21E-05 | 5.46E-01 | 2.45E-05 | 2.75E-02 | 2.11E-06 |
| 567146 | 3.98E+01 | 9.10E-05 | 9.46E+00 | 8.27E-05 | 5.49E-01 | 2.46E-05 | 2.76E-02 | 2.13E-06 |
| 567147 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567148 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567149 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567150 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567151 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567152 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567153 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567154 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567155 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 567156 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568128 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568129 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568130 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568131 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568132 | 1.98E-01 | 3.74E-05 | 1.98E-01 | 3.74E-05 | 1.16E-01 | 1.55E-05 | 3.26E-03 | 1.32E-06 |
| 568133 | 1.16E+01 | 4.44E-01 | 1.00E+01 | 4.05E-01 | 3.50E+00 | 1.57E-01 | 1.54E-01 | 1.30E-02 |
| 568134 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568135 | 6.79E+01 | 2.14E-03 | 6.76E+01 | 1.81E-03 | 5.00E+01 | 6.65E-04 | 1.53E+00 | 3.53E-05 |
| 568136 | 4.66E+01 | 2.76E-04 | 2.92E+01 | 2.76E-04 | 1.27E+01 | 1.12E-04 | 5.04E-01 | 6.17E-06 |
| 568137 | 1.90E+01 | 3.57E-05 | 9.83E+00 | 3.57E-05 | 2.55E+00 | 1.44E-05 | 1.39E-01 | 1.27E-06 |
| 568138 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 568139 | 1.91E-01 | 9.24E-05 | 1.91E-01 | 8.40E-05 | 1.11E-01 | 2.49E-05 | 3.10E-03 | 2.15E-06 |
| 568140 | 4.13E+01 | 1.03E-04 | 9.82E+00 | 9.27E-05 | 5.67E-01 | 2.68E-05 | 2.86E-02 | 2.31E-06 |
| 568141 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568142 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568143 | 5.68E+01 | 1.18E-04 | 1.35E+01 | 1.06E-04 | 7.38E-01 | 2.96E-05 | 3.82E-02 | 2.54E-06 |
| 568144 | 5.74E+01 | 1.16E-04 | 1.36E+01 | 1.04E-04 | 7.44E-01 | 2.93E-05 | 3.85E-02 | 2.52E-06 |
| 568145 | 5.68E+01 | 1.12E-04 | 1.35E+01 | 1.00E-04 | 7.38E-01 | 2.84E-05 | 3.82E-02 | 2.44E-06 |
| 568146 | 5.45E+01 | 1.77E-03 | 1.29E+01 | 1.76E-03 | 7.12E-01 | 2.01E-04 | 3.67E-02 | 1.31E-05 |
| 568147 | 5.13E+01 | 1.04E-04 | 1.22E+01 | 9.42E-05 | 6.77E-01 | 2.71E-05 | 3.47E-02 | 2.33E-06 |
| 568148 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568149 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568150 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568151 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568152 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568153 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568154 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568155 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 568156 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569128 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569129 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569130 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569131 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569132 | 1.95E-01 | 3.66E-05 | 1.95E-01 | 3.66E-05 | 1.14E-01 | 1.50E-05 | 3.18E-03 | 1.30E-06 |
| 569133 | 3.93E+00 | 2.19E-01 | 3.40E+00 | 1.91E-01 | 1.21E+00 | 5.75E-02 | 5.22E-02 | 4.31E-03 |
| 569134 | 1.91E-01 | 3.67E-05 | 1.91E-01 | 3.65E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.29E-06 |
| 569135 | 4.25E+00 | 5.08E-04 | 4.16E+00 | 2.99E-04 | 3.05E+00 | 7.64E-05 | 9.27E-02 | 5.24E-06 |
| 569136 | 1.33E+01 | 1.09E-04 | 8.50E+00 | 1.09E-04 | 3.79E+00 | 4.42E-05 | 1.48E-01 | 2.77E-06 |
| 569137 | 7.72E+00 | 9.19E-05 | 4.06E+00 | 8.35E-05 | 1.09E+00 | 2.48E-05 | 5.79E-02 | 2.14E-06 |
| 569138 | 4.32E+01 | 1.08E-04 | 1.03E+01 | 9.71E-05 | 5.87E-01 | 2.77E-05 | 2.97E-02 | 2.38E-06 |
| 569139 | 5.63E+01 | 1.20E-04 | 1.33E+01 | 1.08E-04 | 7.32E-01 | 3.00E-05 | 3.78E-02 | 2.58E-06 |
| 569140 | 1.91E-01 | 1.38E-03 | 1.91E-01 | 1.38E-03 | 1.11E-01 | 1.47E-04 | 3.10E-03 | 9.92E-06 |
| 569141 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569142 | 7.79E+01 | 1.42E-04 | 1.84E+01 | 1.26E-04 | 9.72E-01 | 3.39E-05 | 5.13E-02 | 2.90E-06 |
| 569143 | 7.85E+01 | 1.43E-04 | 1.85E+01 | 1.26E-04 | 9.78E-01 | 3.40E-05 | 5.16E-02 | 2.92E-06 |
| 569144 | 7.62E+01 | 1.40E-04 | 1.80E+01 | 1.24E-04 | 9.54E-01 | 3.35E-05 | 5.02E-02 | 2.87E-06 |
| 569145 | 7.29E+01 | 1.32E-04 | 1.72E+01 | 1.18E-04 | 9.17E-01 | 3.22E-05 | 4.82E-02 | 2.76E-06 |
| 569146 | 7.07E+01 | 1.59E-01 | 1.84E+01 | 1.59E-01 | 1.19E+00 | 1.88E-02 | 9.20E-02 | 1.03E-03 |
| 569147 | 1.02E+03 | 1.00E+00 | 2.38E+02 | 1.00E+00 | 1.14E+01 | 1.15E-01 | 6.34E-01 | 7.02E-03 |
| 569148 | 5.68E+01 | 1.12E-04 | 1.35E+01 | 1.01E-04 | 7.38E-01 | 2.85E-05 | 3.82E-02 | 2.45E-06 |
| 569149 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569150 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569151 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569152 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569153 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569154 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569155 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 569156 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 570057 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 570067 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 570077 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 570087 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 570097 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 570107 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 570117 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 570128 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 570129 | 1.88E+04 | 3.57E-05 | 4.41E+03 | 3.57E-05 | 2.08E+02 | 1.44E-05 | 1.17E+01 | 1.27E-06 |
| 570130 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 570131 | 1.91E-01 | 3.57E-05 | 1.91E-01 | 3.57E-05 | 1.11E-01 | 1.44E-05 | 3.10E-03 | 1.27E-06 |
| 570132 | 1.92E-01 | 3.59E-05 | 1.92E-01 | 3.59E-05 | 1.12E-01 | 1.46E-05 | 3.12E-03 | 1.28E-06 |
| 570133 | 9.07E-01 | 5.14E-02 | 8.05E-01 | 4.35E-02 | 3.22E-01 | 1.16E-02 | 1.25E-02 | 8.26E-04 |
| 570134 | 2.78E-01 | 6.65E-03 | 2.66E-01 | 5.60E-03 | 1.37E-01 | 1.45E-03 | 4.25E-03 | 1.02E-04 |
| 570135 | 3.16E+00 | 1.39E-04 | 1.04E+00 | 8.82E-05 | 2.92E-01 | 2.39E-05 | 9.43E-03 | 2.00E-06 |
| 570136 | 6.29E+00 | 1.52E-04 | 2.54E+00 | 1.18E-04 | 7.47E-01 | 3.27E-05 | 3.04E-02 | 2.67E-06 |
| 570137 | 5.00E+01 | 1.18E-04 | 1.24E+01 | 1.06E-04 | 9.31E-01 | 2.97E-05 | 4.88E-02 | 2.55E-06 |
| 570138 | 6.65E+01 | 1.35E-04 | 1.58E+01 | 1.20E-04 | 8.82E-01 | 3.29E-05 | 4.62E-02 | 2.81E-06 |
| 570139 | 8.18E+01 | 1.49E-04 | 1.93E+01 | 1.32E-04 | 1.02E+00 | 3.55E-05 | 5.39E-02 | 3.03E-06 |
| 570140 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570141 | 9.68E+01 | 1.63E-04 | 2.28E+01 | 1.44E-04 | 1.18E+00 | 3.81E-05 | 6.30E-02 | 3.25E-06 |
| 570142 | 9.73E+01 | 3.72E-04 | 2.30E+01 | 3.19E-04 | 1.19E+00 | 8.30E-05 | 6.33E-02 | 6.41E-06 |
| 570143 | 9.51E+01 | 1.62E-04 | 2.24E+01 | 1.43E-04 | 1.16E+00 | 3.77E-05 | 6.19E-02 | 3.22E-06 |
| 570144 | 9.01E+01 | 1.57E-04 | 2.13E+01 | 1.39E-04 | 1.11E+00 | 3.70E-05 | 5.88E-02 | 3.15E-06 |
| 570145 | 8.35E+01 | 1.48E-04 | 1.97E+01 | 1.32E-04 | 1.03E+00 | 3.53E-05 | 5.47E-02 | 3.02E-06 |
| 570146 | 7.62E+01 | 1.40E-04 | 1.80E+01 | 1.24E-04 | 9.54E-01 | 3.38E-05 | 5.02E-02 | 2.88E-06 |
| 570147 | 6.85E+01 | 1.31E-04 | 1.62E+01 | 1.17E-04 | 8.67E-01 | 3.21E-05 | 4.54E-02 | 2.75E-06 |
| 570148 | 6.12E+01 | 1.22E-04 | 1.45E+01 | 1.09E-04 | 7.88E-01 | 3.05E-05 | 4.09E-02 | 2.61E-06 |
| 570149 | 5.39E+01 | 1.14E-04 | 1.28E+01 | 1.02E-04 | 7.06E-01 | 2.89E-05 | 3.64E-02 | 2.48E-06 |
| 570150 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570151 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570152 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570153 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570154 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570155 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570156 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 570157 | 1.14E-03 | 8.45E-08 | 1.14E-03 | 8.45E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.75E-09 |
| 570167 | 1.14E-03 | 8.42E-08 | 1.14E-03 | 8.42E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 570177 | 1.14E-03 | 8.41E-08 | 1.14E-03 | 8.41E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 570187 | 1.14E-03 | 8.41E-08 | 1.14E-03 | 8.41E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 570197 | 1.14E-03 | 8.41E-08 | 1.14E-03 | 8.41E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 570207 | 1.14E-03 | 8.40E-08 | 1.14E-03 | 8.40E-08 | 7.62E-04 | 3.43E-08 | 2.13E-05 | 2.74E-09 |
| 571128 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 571129 | 4.43E+04 | 3.61E-05 | 1.04E+04 | 3.61E-05 | 4.91E+02 | 1.46E-05 | 2.75E+01 | 1.28E-06 |
| 571130 | 2.58E+04 | 3.61E-05 | 6.03E+03 | 3.61E-05 | 2.85E+02 | 1.46E-05 | 1.60E+01 | 1.28E-06 |
| 571131 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 571132 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.10E-03 | 1.28E-06 |
| 571133 | 3.35E-01 | 1.09E-02 | 3.15E-01 | 9.24E-03 | 1.54E-01 | 2.38E-03 | 5.01E-03 | 1.68E-04 |
| 571134 | 2.52E-01 | 4.66E-03 | 2.44E-01 | 3.92E-03 | 1.29E-01 | 1.01E-03 | 3.91E-03 | 7.17E-05 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 571135 | 1.37E+01 | 3.18E-04 | 3.37E+00 | 2.66E-04 | 2.70E-01 | 7.22E-05 | 1.18E-02 | 5.41E-06 |
| 571136 | 1.66E+01 | 7.80E-05 | 4.25E+00 | 6.53E-05 | 4.01E-01 | 2.06E-05 | 1.86E-02 | 1.77E-06 |
| 571137 | 6.20E+01 | 1.41E-04 | 1.49E+01 | 1.24E-04 | 8.94E-01 | 3.37E-05 | 4.67E-02 | 2.88E-06 |
| 571138 | 8.20E+01 | 1.57E-04 | 1.94E+01 | 1.38E-04 | 1.04E+00 | 3.67E-05 | 5.52E-02 | 3.14E-06 |
| 571139 | 9.62E+01 | 1.69E-04 | 2.27E+01 | 1.49E-04 | 1.18E+00 | 3.91E-05 | 6.29E-02 | 3.34E-06 |
| 571140 | 1.04E+02 | 4.93E-03 | 2.45E+01 | 4.41E-03 | 1.28E+00 | 1.01E-03 | 6.81E-02 | 6.99E-05 |
| 571141 | 1.06E+02 | 2.95E-03 | 2.50E+01 | 2.49E-03 | 1.29E+00 | 6.40E-04 | 6.94E-02 | 4.57E-05 |
| 571142 | 1.04E+02 | 2.08E-03 | 2.48E+01 | 1.76E-03 | 1.33E+00 | 4.51E-04 | 7.09E-02 | 3.24E-05 |
| 571143 | 9.95E+01 | 9.73E-04 | 2.35E+01 | 8.25E-04 | 1.22E+00 | 2.12E-04 | 6.52E-02 | 1.56E-05 |
| 571144 | 9.29E+01 | 4.59E-04 | 2.19E+01 | 3.93E-04 | 1.14E+00 | 1.02E-04 | 6.06E-02 | 7.77E-06 |
| 571145 | 8.46E+01 | 1.64E-04 | 2.00E+01 | 1.45E-04 | 1.05E+00 | 3.81E-05 | 5.58E-02 | 3.25E-06 |
| 571146 | 7.62E+01 | 1.47E-04 | 1.80E+01 | 1.30E-04 | 9.59E-01 | 3.50E-05 | 5.04E-02 | 2.99E-06 |
| 571147 | 6.79E+01 | 1.37E-04 | 1.61E+01 | 1.22E-04 | 8.64E-01 | 3.32E-05 | 4.53E-02 | 2.84E-06 |
| 571148 | 5.96E+01 | 1.00E+00 | 1.41E+01 | 1.00E+00 | 7.70E-01 | 1.00E+00 | 4.00E-02 | 1.00E+00 |
| 571149 | 5.22E+01 | 1.00E+00 | 1.24E+01 | 1.00E+00 | 6.87E-01 | 1.00E+00 | 3.53E-02 | 1.00E+00 |
| 571150 | 4.92E+01 | 1.09E-04 | 1.17E+01 | 9.79E-05 | 6.53E-01 | 2.80E-05 | 3.34E-02 | 2.40E-06 |
| 571151 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 571152 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 571153 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 571154 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 571155 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 571156 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572128 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572129 | 4.57E+04 | 3.61E-05 | 1.07E+04 | 3.61E-05 | 5.07E+02 | 1.46E-05 | 2.83E+01 | 1.28E-06 |
| 572130 | 3.95E+04 | 3.61E-05 | 9.26E+03 | 3.61E-05 | 4.38E+02 | 1.46E-05 | 2.45E+01 | 1.28E-06 |
| 572131 | 1.28E+04 | 3.61E-05 | 2.99E+03 | 3.61E-05 | 1.41E+02 | 1.46E-05 | 7.91E+00 | 1.28E-06 |
| 572132 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572133 | 1.99E-01 | 6.04E-04 | 1.98E-01 | 5.13E-04 | 1.14E-01 | 1.37E-04 | 3.20E-03 | 9.92E-06 |
| 572134 | 2.07E-01 | 1.30E-03 | 2.05E-01 | 1.09E-03 | 1.16E-01 | 2.86E-04 | 3.32E-03 | 2.05E-05 |
| 572135 | 2.91E+01 | 4.28E-04 | 6.97E+00 | 3.64E-04 | 4.33E-01 | 9.72E-05 | 2.11E-02 | 7.22E-06 |
| 572136 | 3.42E+01 | 1.30E-04 | 8.15E+00 | 1.14E-04 | 4.87E-01 | 3.21E-05 | 2.42E-02 | 2.69E-06 |
| 572137 | 4.07E+01 | 1.15E-04 | 9.71E+00 | 1.03E-04 | 5.68E-01 | 2.92E-05 | 2.86E-02 | 2.50E-06 |
| 572138 | 7.90E+01 | 1.65E-04 | 1.87E+01 | 1.46E-04 | 9.91E-01 | 3.84E-05 | 5.22E-02 | 3.27E-06 |
| 572139 | 9.58E+01 | 3.50E-02 | 2.60E+01 | 2.95E-02 | 2.25E+00 | 7.81E-03 | 9.70E-02 | 5.52E-04 |
| 572140 | 1.02E+02 | 2.14E-02 | 2.59E+01 | 1.80E-02 | 1.90E+00 | 4.72E-03 | 9.99E-02 | 3.33E-04 |
| 572141 | 9.99E+01 | 7.58E-03 | 2.42E+01 | 6.36E-03 | 1.43E+00 | 1.64E-03 | 7.66E-02 | 1.16E-04 |
| 572142 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572143 | 9.08E+01 | 1.21E-03 | 2.15E+01 | 1.03E-03 | 1.13E+00 | 2.65E-04 | 6.01E-02 | 1.92E-05 |
| 572144 | 8.35E+01 | 6.77E-04 | 1.97E+01 | 5.77E-04 | 1.04E+00 | 1.49E-04 | 5.51E-02 | 1.11E-05 |
| 572145 | 7.57E+01 | 6.87E-04 | 1.79E+01 | 5.85E-04 | 9.59E-01 | 1.52E-04 | 5.05E-02 | 1.12E-05 |
| 572146 | 6.79E+01 | 1.49E-04 | 1.61E+01 | 1.32E-04 | 8.75E-01 | 3.56E-05 | 4.59E-02 | 3.02E-06 |
| 572147 | 6.08E+01 | 1.39E-04 | 1.44E+01 | 1.23E-04 | 7.96E-01 | 3.36E-05 | 4.14E-02 | 2.86E-06 |
| 572148 | 5.33E+01 | 1.27E-04 | 1.26E+01 | 1.13E-04 | 7.08E-01 | 3.14E-05 | 3.65E-02 | 2.69E-06 |
| 572149 | 4.65E+01 | 1.15E-04 | 1.11E+01 | 1.03E-04 | 6.26E-01 | 2.91E-05 | 3.18E-02 | 2.50E-06 |
| 572150 | 4.28E+01 | 4.77E-02 | 1.02E+01 | 4.77E-02 | 5.84E-01 | 5.64E-03 | 2.95E-02 | 3.07E-04 |
| 572151 | 3.73E+01 | 1.04E-04 | 8.87E+00 | 9.39E-05 | 5.22E-01 | 2.71E-05 | 2.61E-02 | 2.33E-06 |
| 572152 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572153 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 572154 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572155 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 572156 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 573128 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 573129 | 3.34E+04 | 3.61E-05 | 7.83E+03 | 3.61E-05 | 3.70E+02 | 1.46E-05 | 2.07E+01 | 1.28E-06 |
| 573130 | 3.81E+04 | 3.61E-05 | 8.92E+03 | 3.61E-05 | 4.22E+02 | 1.46E-05 | 2.36E+01 | 1.28E-06 |
| 573131 | 1.85E+04 | 3.61E-05 | 4.33E+03 | 3.61E-05 | 2.05E+02 | 1.46E-05 | 1.15E+01 | 1.28E-06 |
| 573132 | 1.91E-01 | 3.61E-05 | 1.91E-01 | 3.61E-05 | 1.11E-01 | 1.46E-05 | 3.11E-03 | 1.28E-06 |
| 573133 | 1.92E-01 | 8.66E-05 | 1.92E-01 | 7.88E-05 | 1.11E-01 | 2.44E-05 | 3.11E-03 | 2.06E-06 |
| 573134 | 3.03E+00 | 1.00E+00 | 3.03E+00 | 1.00E+00 | 6.51E-01 | 1.00E+00 | 6.00E-02 | 2.15E-01 |
| 573135 | 2.23E+01 | 2.60E-04 | 5.36E+00 | 2.24E-04 | 3.57E-01 | 6.11E-05 | 1.68E-02 | 4.70E-06 |
| 573136 | 2.52E+01 | 1.00E+00 | 6.12E+00 | 1.00E+00 | 4.05E-01 | 1.00E+00 | 2.03E-02 | 2.02E-01 |
| 573137 | 2.80E+02 | 1.00E+00 | 2.47E+02 | 1.00E+00 | 5.66E+01 | 1.00E+00 | 1.92E+00 | 4.48E-01 |
| 573138 | 2.06E+02 | 1.83E-02 | 1.61E+02 | 1.54E-02 | 3.60E+01 | 4.02E-03 | 1.11E+00 | 2.84E-04 |
| 573139 | 7.08E+01 | 2.26E-02 | 1.80E+01 | 1.91E-02 | 1.30E+00 | 4.99E-03 | 6.00E-02 | 3.52E-04 |
| 573140 | 7.41E+01 | 7.12E-03 | 1.76E+01 | 5.99E-03 | 9.59E-01 | 1.54E-03 | 5.02E-02 | 1.10E-04 |
| 573141 | 7.57E+01 | 1.67E-03 | 1.79E+01 | 1.40E-03 | 9.53E-01 | 3.62E-04 | 5.02E-02 | 2.61E-05 |
| 573142 | 1.91E-01 | 3.82E-05 | 1.91E-01 | 3.82E-05 | 1.11E-01 | 1.53E-05 | 3.11E-03 | 1.34E-06 |
| 573143 | 7.08E+01 | 4.81E-04 | 1.68E+01 | 4.12E-04 | 9.21E-01 | 1.07E-04 | 4.84E-02 | 8.12E-06 |
| 573144 | 6.71E+01 | 7.65E-04 | 1.66E+01 | 6.51E-04 | 1.08E+00 | 1.69E-04 | 5.69E-02 | 1.25E-05 |
| 573145 | 6.03E+01 | 1.05E-03 | 1.44E+01 | 8.95E-04 | 8.20E-01 | 2.33E-04 | 4.28E-02 | 1.68E-05 |
| 573146 | 5.43E+01 | 8.81E-04 | 1.29E+01 | 7.49E-04 | 7.14E-01 | 1.95E-04 | 3.68E-02 | 1.42E-05 |
| 573147 | 4.83E+01 | 6.62E-04 | 1.15E+01 | 5.64E-04 | 6.47E-01 | 1.47E-04 | 3.30E-02 | 1.09E-05 |
| 573148 | 4.27E+01 | 1.18E-04 | 1.01E+01 | 1.06E-04 | 5.84E-01 | 3.00E-05 | 2.95E-02 | 2.58E-06 |
| 573149 | 3.74E+01 | 1.10E-04 | 8.91E+00 | 9.90E-05 | 5.25E-01 | 2.85E-05 | 2.62E-02 | 2.44E-06 |
| 573150 | 3.39E+01 | 1.88E-03 | 8.12E+00 | 1.88E-03 | 4.93E-01 | 2.53E-04 | 2.44E-02 | 1.38E-05 |
| 573151 | 2.98E+01 | 5.27E-02 | 7.16E+00 | 5.27E-02 | 4.45E-01 | 6.22E-03 | 2.21E-02 | 3.41E-04 |
| 573152 | 2.73E-01 | 4.56E-02 | 2.61E-01 | 4.47E-02 | 1.35E-01 | 5.38E-03 | 4.17E-03 | 3.52E-04 |
| 573153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.11E-01 | 1.53E-05 | 3.11E-03 | 1.34E-06 |
| 573154 | 1.91E-01 | 3.82E-05 | 1.91E-01 | 3.82E-05 | 1.11E-01 | 1.53E-05 | 3.11E-03 | 1.34E-06 |
| 573155 | 1.91E-01 | 3.82E-05 | 1.91E-01 | 3.82E-05 | 1.11E-01 | 1.53E-05 | 3.11E-03 | 1.34E-06 |
| 573156 | 1.91E-01 | 3.82E-05 | 1.91E-01 | 3.82E-05 | 1.11E-01 | 1.53E-05 | 3.11E-03 | 1.34E-06 |
| 574128 | 1.91E-01 | 3.82E-05 | 1.91E-01 | 3.82E-05 | 1.11E-01 | 1.53E-05 | 3.11E-03 | 1.34E-06 |
| 574129 | 2.05E+04 | 3.82E-05 | 4.81E+03 | 3.82E-05 | 2.28E+02 | 1.53E-05 | 1.27E+01 | 1.34E-06 |
| 574130 | 2.87E+04 | 3.82E-05 | 6.73E+03 | 3.82E-05 | 3.19E+02 | 1.53E-05 | 1.78E+01 | 1.34E-06 |
| 574131 | 1.89E+04 | 3.82E-05 | 4.42E+03 | 3.82E-05 | 2.09E+02 | 1.53E-05 | 1.17E+01 | 1.34E-06 |
| 574132 | 6.55E+03 | 3.82E-05 | 1.53E+03 | 3.82E-05 | 7.27E+01 | 1.53E-05 | 4.06E+00 | 1.34E-06 |
| 574133 | 1.91E-01 | 7.05E-05 | 1.91E-01 | 6.57E-05 | 1.11E-01 | 2.12E-05 | 3.11E-03 | 1.84E-06 |
| 574134 | 1.92E-01 | 9.00E-05 | 1.92E-01 | 8.21E-05 | 1.12E-01 | 2.51E-05 | 3.12E-03 | 2.14E-06 |
| 574135 | 1.93E-01 | 9.98E-01 | 1.93E-01 | 9.98E-01 | 1.12E-01 | 2.23E-01 | 3.13E-03 | 1.45E-02 |
| 574136 | 1.02E+00 | 1.00E+00 | 7.45E-01 | 1.00E+00 | 3.00E-01 | 8.71E-01 | 1.52E-02 | 5.63E-02 |
| 574137 | 1.92E-01 | 1.19E-04 | 1.92E-01 | 1.07E-04 | 1.12E-01 | 3.02E-05 | 3.12E-03 | 2.59E-06 |
| 574138 | 1.92E-01 | 1.29E-04 | 1.92E-01 | 1.16E-04 | 1.12E-01 | 3.20E-05 | 3.12E-03 | 2.75E-06 |
| 574139 | 1.92E-01 | 1.00E+00 | 1.92E-01 | 1.00E+00 | 1.12E-01 | 2.58E-01 | 3.12E-03 | 1.68E-02 |
| 574140 | 4.60E+01 | 1.40E-04 | 1.09E+01 | 1.25E-04 | 6.19E-01 | 3.42E-05 | 3.15E-02 | 2.92E-06 |
| 574141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 574142 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 574143 | 4.79E+01 | 9.65E-04 | 1.14E+01 | 8.19E-04 | 6.44E-01 | 2.13E-04 | 3.29E-02 | 1.55E-05 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 574144 | 4.52E+01 | 1.27E-03 | 1.08E+01 | 1.07E-03 | 6.32E-01 | 2.79E-04 | 3.21E-02 | 2.01E-05 |
| 574145 | 4.32E+01 | 1.37E-03 | 1.07E+01 | 1.16E-03 | 7.47E-01 | 3.01E-04 | 3.85E-02 | 2.17E-05 |
| 574146 | 3.84E+01 | 1.23E-03 | 9.15E+00 | 1.04E-03 | 5.42E-01 | 2.70E-04 | 2.72E-02 | 1.95E-05 |
| 574147 | 3.44E+01 | 9.71E-04 | 8.21E+00 | 8.24E-04 | 4.94E-01 | 2.16E-04 | 2.45E-02 | 1.57E-05 |
| 574148 | 3.08E+01 | 7.09E-04 | 7.36E+00 | 6.04E-04 | 4.53E-01 | 1.58E-04 | 2.22E-02 | 1.16E-05 |
| 574149 | 2.74E+01 | 9.79E-05 | 6.56E+00 | 8.90E-05 | 4.13E-01 | 2.63E-05 | 2.00E-02 | 2.27E-06 |
| 574150 | 2.49E+01 | 9.63E-05 | 6.01E+00 | 8.75E-05 | 3.97E-01 | 2.61E-05 | 1.90E-02 | 2.24E-06 |
| 574151 | 2.16E+01 | 9.41E-05 | 5.25E+00 | 8.58E-05 | 3.59E-01 | 2.57E-05 | 1.70E-02 | 2.21E-06 |
| 574152 | 2.19E-01 | 3.44E-02 | 2.14E-01 | 3.44E-02 | 1.17E-01 | 3.49E-03 | 3.42E-03 | 2.23E-04 |
| 574153 | 1.99E-01 | 3.87E-05 | 1.98E-01 | 3.86E-05 | 1.13E-01 | 1.54E-05 | 3.20E-03 | 1.35E-06 |
| 574154 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 574155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 574156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 575128 | 1.07E+03 | 3.82E-05 | 2.50E+02 | 3.82E-05 | 1.19E+01 | 1.53E-05 | 6.63E-01 | 1.34E-06 |
| 575129 | 1.15E+04 | 3.82E-05 | 2.69E+03 | 3.82E-05 | 1.27E+02 | 1.53E-05 | 7.12E+00 | 1.34E-06 |
| 575130 | 1.87E+04 | 3.82E-05 | 4.36E+03 | 3.82E-05 | 2.07E+02 | 1.53E-05 | 1.16E+01 | 1.34E-06 |
| 575131 | 1.54E+04 | 3.82E-05 | 3.61E+03 | 3.82E-05 | 1.71E+02 | 1.53E-05 | 9.56E+00 | 1.34E-06 |
| 575132 | 7.16E+03 | 3.82E-05 | 1.68E+03 | 3.82E-05 | 7.94E+01 | 1.53E-05 | 4.44E+00 | 1.34E-06 |
| 575133 | 1.99E+03 | 3.82E-05 | 4.67E+02 | 3.82E-05 | 2.22E+01 | 1.53E-05 | 1.23E+00 | 1.34E-06 |
| 575134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 575135 | 2.79E-01 | 1.00E+00 | 2.79E-01 | 1.00E+00 | 1.75E-01 | 1.00E+00 | 6.00E-03 | 9.69E-02 |
| 575136 | 3.11E-01 | 1.00E+00 | 3.11E-01 | 1.00E+00 | 1.99E-01 | 4.65E-01 | 7.06E-03 | 3.03E-02 |
| 575137 | 1.92E-01 | 3.49E-03 | 1.92E-01 | 3.48E-03 | 1.12E-01 | 1.88E-03 | 3.12E-03 | 1.21E-04 |
| 575138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 575139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 575140 | 1.92E-01 | 1.10E-04 | 1.92E-01 | 9.93E-05 | 1.12E-01 | 2.86E-05 | 3.12E-03 | 2.45E-06 |
| 575141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 575142 | 1.92E-01 | 1.09E-04 | 1.92E-01 | 9.82E-05 | 1.12E-01 | 2.83E-05 | 3.12E-03 | 2.43E-06 |
| 575143 | 2.20E-01 | 9.47E-04 | 2.06E-01 | 8.05E-04 | 1.16E-01 | 2.10E-04 | 3.28E-03 | 1.53E-05 |
| 575144 | 2.51E-01 | 1.33E-03 | 2.20E-01 | 1.12E-03 | 1.19E-01 | 2.93E-04 | 3.44E-03 | 2.11E-05 |
| 575145 | 2.62E+01 | 1.56E-03 | 6.36E+00 | 1.32E-03 | 4.23E-01 | 3.42E-04 | 2.05E-02 | 2.46E-05 |
| 575146 | 2.42E+01 | 1.49E-03 | 5.84E+00 | 1.27E-03 | 3.87E-01 | 3.28E-04 | 1.85E-02 | 2.36E-05 |
| 575147 | 2.24E+01 | 1.26E-03 | 5.41E+00 | 1.07E-03 | 3.63E-01 | 2.80E-04 | 1.71E-02 | 2.01E-05 |
| 575148 | 2.05E+01 | 9.76E-04 | 4.95E+00 | 8.29E-04 | 3.39E-01 | 2.17E-04 | 1.59E-02 | 1.56E-05 |
| 575149 | 1.83E+01 | 6.92E-04 | 4.45E+00 | 5.88E-04 | 3.15E-01 | 1.55E-04 | 1.44E-02 | 1.13E-05 |
| 575150 | 1.67E+01 | 8.19E-05 | 4.06E+00 | 7.53E-05 | 2.97E-01 | 2.34E-05 | 1.35E-02 | 2.02E-06 |
| 575151 | 2.88E+01 | 8.25E-05 | 6.93E+00 | 7.59E-05 | 4.37E-01 | 2.35E-05 | 2.13E-02 | 2.03E-06 |
| 575152 | 2.45E-01 | 4.22E-05 | 2.35E-01 | 4.16E-05 | 1.23E-01 | 1.61E-05 | 3.71E-03 | 1.41E-06 |
| 575153 | 2.09E-01 | 3.95E-05 | 2.06E-01 | 3.92E-05 | 1.15E-01 | 1.55E-05 | 3.31E-03 | 1.36E-06 |
| 575154 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 575155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 575156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576126 | 4.60E+01 | 3.61E-23 | 1.08E+01 | 3.61E-23 | 5.09E-01 | 2.14E-23 | 2.85E-02 | 9.11E-25 |
| 576127 | 3.56E+02 | 5.91E-21 | 8.35E+01 | 5.91E-21 | 3.95E+00 | 3.51E-21 | 2.21E-01 | 1.49E-22 |
| 576128 | 1.52E+03 | 3.82E-05 | 3.56E+02 | 3.82E-05 | 1.70E+01 | 1.53E-05 | 9.46E-01 | 1.34E-06 |
| 576129 | 6.05E+03 | 3.82E-05 | 1.42E+03 | 3.82E-05 | 6.71E+01 | 1.53E-05 | 3.75E+00 | 1.34E-06 |
| 576130 | 1.10E+04 | 3.82E-05 | 2.59E+03 | 3.82E-05 | 1.22E+02 | 1.53E-05 | 6.85E+00 | 1.34E-06 |
| 576131 | 1.20E+04 | 3.82E-05 | 2.81E+03 | 3.82E-05 | 1.33E+02 | 1.53E-05 | 7.43E+00 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 576132 | 7.38E+03 | 3.82E-05 | 1.73E+03 | 3.82E-05 | 8.19E+01 | 1.53E-05 | 4.58E+00 | 1.34E-06 |
| 576133 | 2.41E+03 | 3.82E-05 | 5.66E+02 | 3.82E-05 | 2.69E+01 | 1.53E-05 | 1.50E+00 | 1.34E-06 |
| 576134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576142 | 1.92E-01 | 8.35E-05 | 1.92E-01 | 7.67E-05 | 1.12E-01 | 2.36E-05 | 3.12E-03 | 2.04E-06 |
| 576143 | 2.15E-01 | 8.75E-04 | 2.04E-01 | 7.44E-04 | 1.15E-01 | 1.95E-04 | 3.27E-03 | 1.41E-05 |
| 576144 | 2.30E-01 | 1.27E-03 | 2.11E-01 | 1.07E-03 | 1.17E-01 | 2.81E-04 | 3.35E-03 | 2.02E-05 |
| 576145 | 2.82E-01 | 1.57E-03 | 2.34E-01 | 1.33E-03 | 1.21E-01 | 3.45E-04 | 3.58E-03 | 2.46E-05 |
| 576146 | 3.05E-01 | 1.65E-03 | 2.45E-01 | 1.38E-03 | 1.24E-01 | 3.61E-04 | 3.70E-03 | 2.59E-05 |
| 576147 | 3.62E-01 | 1.47E-03 | 2.98E-01 | 1.25E-03 | 1.37E-01 | 3.26E-04 | 4.44E-03 | 2.33E-05 |
| 576148 | 2.22E-01 | 1.21E-03 | 2.09E-01 | 1.02E-03 | 1.17E-01 | 2.67E-04 | 3.34E-03 | 1.92E-05 |
| 576149 | 2.12E-01 | 9.05E-04 | 2.04E-01 | 7.69E-04 | 1.15E-01 | 2.02E-04 | 3.28E-03 | 1.46E-05 |
| 576150 | 1.02E+01 | 6.37E-04 | 2.54E+00 | 5.43E-04 | 2.25E-01 | 1.44E-04 | 9.42E-03 | 1.05E-05 |
| 576151 | 1.99E-01 | 6.94E-05 | 1.98E-01 | 6.47E-05 | 1.13E-01 | 2.10E-05 | 3.20E-03 | 1.83E-06 |
| 576152 | 2.31E-01 | 4.11E-05 | 2.23E-01 | 4.06E-05 | 1.20E-01 | 1.59E-05 | 3.55E-03 | 1.39E-06 |
| 576153 | 2.03E-01 | 3.90E-05 | 2.01E-01 | 3.89E-05 | 1.14E-01 | 1.54E-05 | 3.25E-03 | 1.36E-06 |
| 576154 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 576155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 576156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577123 | 5.42E+00 | 0.00E+00 | 1.27E+00 | 0.00E+00 | 6.00E-02 | 0.00E+00 | 3.36E-03 | 0.00E+00 |
| 577124 | 1.62E+01 | 0.00E+00 | 3.80E+00 | 0.00E+00 | 1.80E-01 | 0.00E+00 | 1.00E-02 | 0.00E+00 |
| 577125 | 4.73E+01 | 4.22E-24 | 1.11E+01 | 4.22E-24 | 5.24E-01 | 2.51E-24 | 2.93E-02 | 1.07E-25 |
| 577126 | 1.28E+02 | 6.14E-22 | 3.00E+01 | 6.14E-22 | 1.42E+00 | 3.65E-22 | 7.95E-02 | 1.55E-23 |
| 577127 | 5.01E+02 | 4.88E-20 | 1.17E+02 | 4.88E-20 | 5.55E+00 | 2.90E-20 | 3.10E-01 | 1.23E-21 |
| 577128 | 1.68E+03 | 3.82E-05 | 3.94E+02 | 3.82E-05 | 1.87E+01 | 1.53E-05 | 1.04E+00 | 1.34E-06 |
| 577129 | 4.21E+03 | 3.82E-05 | 9.85E+02 | 3.82E-05 | 4.67E+01 | 1.53E-05 | 2.61E+00 | 1.34E-06 |
| 577130 | 7.83E+03 | 3.84E-05 | 1.83E+03 | 3.84E-05 | 8.68E+01 | 1.53E-05 | 4.85E+00 | 1.35E-06 |
| 577131 | 7.55E+03 | 3.83E-05 | 1.77E+03 | 3.82E-05 | 8.37E+01 | 1.53E-05 | 4.68E+00 | 1.35E-06 |
| 577132 | 4.60E+03 | 3.82E-05 | 1.08E+03 | 3.82E-05 | 5.11E+01 | 1.53E-05 | 2.85E+00 | 1.34E-06 |
| 577133 | 1.57E+03 | 3.82E-05 | 3.68E+02 | 3.82E-05 | 1.75E+01 | 1.53E-05 | 9.77E-01 | 1.34E-06 |
| 577134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577142 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577143 | 2.11E-01 | 7.25E-04 | 2.02E-01 | 6.17E-04 | 1.15E-01 | 1.64E-04 | 3.25E-03 | 1.18E-05 |
| 577144 | 2.22E-01 | 1.11E-03 | 2.08E-01 | 9.41E-04 | 1.16E-01 | 2.47E-04 | 3.32E-03 | 1.77E-05 |
| 577145 | 2.78E-01 | 1.44E-03 | 2.42E-01 | 1.22E-03 | 1.24E-01 | 3.20E-04 | 3.73E-03 | 2.28E-05 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 577146 | 1.07E+00 | 1.64E-03 | 7.48E-01 | 1.39E-03 | 2.37E-01 | 3.63E-04 | 1.00E-02 | 2.58E-05 |
| 577147 | 8.22E-01 | 1.59E-03 | 5.96E-01 | 1.34E-03 | 2.03E-01 | 3.52E-04 | 8.15E-03 | 2.51E-05 |
| 577148 | 2.55E-01 | 1.38E-03 | 2.30E-01 | 1.16E-03 | 1.22E-01 | 3.04E-04 | 3.60E-03 | 2.18E-05 |
| 577149 | 2.17E-01 | 1.08E-03 | 2.07E-01 | 9.18E-04 | 1.16E-01 | 2.41E-04 | 3.31E-03 | 1.73E-05 |
| 577150 | 2.08E-01 | 7.65E-04 | 2.02E-01 | 6.51E-04 | 1.15E-01 | 1.72E-04 | 3.25E-03 | 1.25E-05 |
| 577151 | 2.06E-01 | 4.84E-04 | 2.01E-01 | 4.13E-04 | 1.15E-01 | 1.11E-04 | 3.25E-03 | 8.16E-06 |
| 577152 | 2.37E-01 | 5.43E-02 | 2.33E-01 | 5.43E-02 | 1.18E-01 | 6.34E-03 | 3.83E-03 | 3.52E-04 |
| 577153 | 1.96E-01 | 3.85E-05 | 1.96E-01 | 3.84E-05 | 1.13E-01 | 1.53E-05 | 3.17E-03 | 1.35E-06 |
| 577154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 577156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578122 | 5.34E+00 | 2.48E-29 | 1.25E+00 | 2.48E-29 | 5.92E-02 | 1.48E-29 | 3.31E-03 | 6.28E-31 |
| 578123 | 1.49E+01 | 3.69E-27 | 3.48E+00 | 3.69E-27 | 1.65E-01 | 2.19E-27 | 9.22E-03 | 9.32E-29 |
| 578124 | 4.08E+01 | 5.49E-25 | 9.57E+00 | 5.49E-25 | 4.53E-01 | 3.26E-25 | 2.53E-02 | 1.39E-26 |
| 578125 | 1.03E+02 | 6.57E-23 | 2.40E+01 | 6.57E-23 | 1.14E+00 | 3.90E-23 | 6.36E-02 | 1.66E-24 |
| 578126 | 2.52E+02 | 4.30E-21 | 5.90E+01 | 4.30E-21 | 2.79E+00 | 2.55E-21 | 1.56E-01 | 1.09E-22 |
| 578127 | 6.66E+02 | 2.17E-19 | 1.56E+02 | 2.17E-19 | 7.38E+00 | 1.29E-19 | 4.13E-01 | 5.49E-21 |
| 578128 | 1.60E+03 | 4.04E-05 | 3.76E+02 | 4.00E-05 | 1.79E+01 | 1.57E-05 | 9.97E-01 | 1.38E-06 |
| 578129 | 3.21E+03 | 3.96E-05 | 7.51E+02 | 3.94E-05 | 3.56E+01 | 1.56E-05 | 1.99E+00 | 1.37E-06 |
| 578130 | 4.73E+03 | 3.90E-05 | 1.11E+03 | 3.88E-05 | 5.26E+01 | 1.54E-05 | 2.93E+00 | 1.36E-06 |
| 578131 | 3.65E+03 | 3.85E-05 | 8.55E+02 | 3.84E-05 | 4.06E+01 | 1.53E-05 | 2.26E+00 | 1.35E-06 |
| 578132 | 1.95E+03 | 3.83E-05 | 4.56E+02 | 3.83E-05 | 2.17E+01 | 1.53E-05 | 1.21E+00 | 1.35E-06 |
| 578133 | 6.55E+02 | 3.82E-05 | 1.53E+02 | 3.82E-05 | 7.37E+00 | 1.53E-05 | 4.09E-01 | 1.34E-06 |
| 578134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578142 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578143 | 2.06E-01 | 6.02E-04 | 2.00E-01 | 5.13E-04 | 1.14E-01 | 1.37E-04 | 3.23E-03 | 9.96E-06 |
| 578144 | 2.15E-01 | 9.58E-04 | 2.05E-01 | 8.13E-04 | 1.16E-01 | 2.14E-04 | 3.29E-03 | 1.54E-05 |
| 578145 | 2.32E-01 | 1.29E-03 | 2.15E-01 | 1.09E-03 | 1.18E-01 | 2.86E-04 | 3.41E-03 | 2.05E-05 |
| 578146 | 5.92E-01 | 1.51E-03 | 4.47E-01 | 1.28E-03 | 1.70E-01 | 3.35E-04 | 6.30E-03 | 2.38E-05 |
| 578147 | 1.18E+00 | 1.56E-03 | 8.31E-01 | 1.33E-03 | 2.57E-01 | 3.47E-04 | 1.11E-02 | 2.47E-05 |
| 578148 | 4.02E-01 | 1.43E-03 | 3.25E-01 | 1.21E-03 | 1.43E-01 | 3.17E-04 | 4.78E-03 | 2.27E-05 |
| 578149 | 2.21E-01 | 1.16E-03 | 2.09E-01 | 9.82E-04 | 1.17E-01 | 2.58E-04 | 3.34E-03 | 1.85E-05 |
| 578150 | 2.10E-01 | 8.14E-04 | 2.03E-01 | 6.91E-04 | 1.15E-01 | 1.83E-04 | 3.26E-03 | 1.32E-05 |
| 578151 | 2.03E-01 | 5.23E-04 | 1.99E-01 | 4.47E-04 | 1.14E-01 | 1.20E-04 | 3.22E-03 | 8.76E-06 |
| 578152 | 1.99E-01 | 2.65E-02 | 1.97E-01 | 2.65E-02 | 1.13E-01 | 2.89E-03 | 3.20E-03 | 1.79E-04 |
| 578153 | 1.93E-01 | 3.83E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.14E-03 | 1.35E-06 |
| 578154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 578156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579121 | 4.45E+00 | 7.64E-30 | 1.04E+00 | 7.64E-30 | 4.93E-02 | 4.54E-30 | 2.76E-03 | 1.93E-31 |
| 579122 | 1.23E+01 | 8.45E-28 | 2.87E+00 | 8.45E-28 | 1.36E-01 | 5.02E-28 | 7.60E-03 | 2.13E-29 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 579123 | 3.04E+01 | 9.37E-26 | 7.11E+00 | 9.37E-26 | 3.36E-01 | 5.56E-26 | 1.88E-02 | 2.37E-27 |
| 579124 | 7.27E+01 | 6.72E-24 | 1.70E+01 | 6.72E-24 | 8.06E-01 | 3.99E-24 | 4.51E-02 | 1.70E-25 |
| 579125 | 1.73E+02 | 3.28E-22 | 4.04E+01 | 3.28E-22 | 1.91E+00 | 1.94E-22 | 1.07E-01 | 8.27E-24 |
| 579126 | 3.64E+02 | 5.92E-06 | 8.51E+01 | 5.00E-06 | 4.03E+00 | 1.21E-06 | 2.25E-01 | 9.08E-08 |
| 579127 | 8.44E+02 | 5.20E-06 | 1.98E+02 | 4.40E-06 | 9.35E+00 | 1.07E-06 | 5.23E-01 | 7.98E-08 |
| 579128 | 1.58E+03 | 4.24E-05 | 3.70E+02 | 4.17E-05 | 1.76E+01 | 1.61E-05 | 9.83E-01 | 1.41E-06 |
| 579129 | 2.34E+03 | 4.11E-05 | 5.47E+02 | 4.07E-05 | 2.60E+01 | 1.59E-05 | 1.45E+00 | 1.39E-06 |
| 579130 | 2.49E+03 | 1.19E-04 | 5.84E+02 | 1.19E-04 | 2.77E+01 | 5.53E-05 | 1.54E+00 | 3.17E-06 |
| 579131 | 1.81E+03 | 3.90E-05 | 4.24E+02 | 3.89E-05 | 2.01E+01 | 1.54E-05 | 1.12E+00 | 1.36E-06 |
| 579132 | 9.21E+02 | 3.85E-05 | 2.16E+02 | 3.84E-05 | 1.03E+01 | 1.53E-05 | 5.74E-01 | 1.35E-06 |
| 579133 | 2.79E+02 | 3.82E-05 | 6.55E+01 | 3.82E-05 | 3.20E+00 | 1.53E-05 | 1.76E-01 | 1.34E-06 |
| 579134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579142 | 1.99E-01 | 3.91E-04 | 1.97E-01 | 3.35E-04 | 1.13E-01 | 9.18E-05 | 3.19E-03 | 6.73E-06 |
| 579143 | 2.04E-01 | 6.14E-04 | 2.00E-01 | 5.23E-04 | 1.14E-01 | 1.40E-04 | 3.23E-03 | 1.01E-05 |
| 579144 | 2.10E-01 | 7.86E-04 | 2.03E-01 | 6.68E-04 | 1.15E-01 | 1.77E-04 | 3.26E-03 | 1.27E-05 |
| 579145 | 2.19E-01 | 1.10E-03 | 2.08E-01 | 9.27E-04 | 1.16E-01 | 2.44E-04 | 3.32E-03 | 1.74E-05 |
| 579146 | 4.48E-01 | 1.39E-03 | 3.55E-01 | 1.17E-03 | 1.50E-01 | 3.08E-04 | 5.17E-03 | 2.20E-05 |
| 579147 | 8.74E-01 | 2.62E-03 | 6.31E-01 | 2.39E-03 | 2.11E-01 | 4.71E-04 | 8.60E-03 | 3.06E-05 |
| 579148 | 3.20E-01 | 1.34E-03 | 2.73E-01 | 1.13E-03 | 1.31E-01 | 2.98E-04 | 4.14E-03 | 2.13E-05 |
| 579149 | 2.17E-01 | 1.07E-03 | 2.07E-01 | 9.05E-04 | 1.16E-01 | 2.38E-04 | 3.32E-03 | 1.70E-05 |
| 579150 | 2.08E-01 | 7.54E-04 | 2.02E-01 | 6.41E-04 | 1.15E-01 | 1.70E-04 | 3.25E-03 | 1.22E-05 |
| 579151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 579156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580057 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 580067 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 580077 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 580087 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 580097 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 580107 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 580120 | 3.65E+00 | 2.98E-30 | 8.55E-01 | 2.98E-30 | 4.05E-02 | 1.77E-30 | 2.26E-03 | 7.53E-32 |
| 580121 | 9.05E+00 | 1.49E-28 | 2.12E+00 | 1.49E-28 | 1.00E-01 | 8.82E-29 | 5.61E-03 | 3.75E-30 |
| 580122 | 2.12E+01 | 8.33E-27 | 4.97E+00 | 8.33E-27 | 2.35E-01 | 4.95E-27 | 1.31E-02 | 2.10E-28 |
| 580123 | 4.75E+01 | 7.45E-25 | 1.11E+01 | 7.45E-25 | 5.26E-01 | 4.42E-25 | 2.94E-02 | 1.88E-26 |
| 580124 | 1.09E+02 | 1.07E-05 | 2.55E+01 | 9.17E-06 | 1.21E+00 | 2.15E-06 | 6.75E-02 | 1.63E-07 |
| 580125 | 2.13E+02 | 9.74E-06 | 4.99E+01 | 8.24E-06 | 2.36E+00 | 2.00E-06 | 1.32E-01 | 1.49E-07 |
| 580126 | 4.23E+02 | 9.28E-06 | 9.92E+01 | 7.85E-06 | 4.69E+00 | 1.91E-06 | 2.62E-01 | 1.42E-07 |
| 580127 | 8.71E+02 | 8.31E-06 | 2.04E+02 | 7.02E-06 | 9.66E+00 | 1.70E-06 | 5.40E-01 | 1.27E-07 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 580128 | 1.30E+03 | 4.50E-05 | 3.04E+02 | 4.39E-05 | 1.45E+01 | 1.67E-05 | 8.08E-01 | 1.45E-06 |
| 580129 | 1.64E+03 | 4.31E-05 | 3.85E+02 | 4.23E-05 | 1.83E+01 | 1.63E-05 | 1.02E+00 | 1.42E-06 |
| 580130 | 1.60E+03 | 4.13E-05 | 3.76E+02 | 4.08E-05 | 1.79E+01 | 1.59E-05 | 9.97E-01 | 1.39E-06 |
| 580131 | 1.07E+03 | 3.98E-05 | 2.51E+02 | 3.95E-05 | 1.20E+01 | 1.56E-05 | 6.67E-01 | 1.37E-06 |
| 580132 | 4.19E+02 | 3.82E-05 | 9.84E+01 | 3.82E-05 | 4.75E+00 | 1.53E-05 | 2.63E-01 | 1.34E-06 |
| 580133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580142 | 2.00E-01 | 4.34E-04 | 1.97E-01 | 3.71E-04 | 1.14E-01 | 1.01E-04 | 3.20E-03 | 7.39E-06 |
| 580143 | 2.05E-01 | 6.55E-04 | 2.00E-01 | 5.58E-04 | 1.14E-01 | 1.49E-04 | 3.23E-03 | 1.08E-05 |
| 580144 | 2.09E-01 | 8.04E-04 | 2.02E-01 | 6.84E-04 | 1.15E-01 | 1.81E-04 | 3.26E-03 | 1.30E-05 |
| 580145 | 2.19E-01 | 1.07E-03 | 2.09E-01 | 9.05E-04 | 1.17E-01 | 2.38E-04 | 3.34E-03 | 1.70E-05 |
| 580146 | 3.27E-01 | 1.30E-03 | 2.78E-01 | 1.10E-03 | 1.32E-01 | 2.88E-04 | 4.21E-03 | 2.06E-05 |
| 580147 | 4.09E-01 | 6.58E-02 | 3.40E-01 | 6.56E-02 | 1.43E-01 | 7.76E-03 | 5.15E-03 | 4.39E-04 |
| 580148 | 2.32E-01 | 1.17E-03 | 2.17E-01 | 9.92E-04 | 1.19E-01 | 2.60E-04 | 3.44E-03 | 1.87E-05 |
| 580149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 580157 | 2.84E-03 | 2.87E-07 | 2.84E-03 | 2.87E-07 | 1.88E-03 | 1.17E-07 | 5.26E-05 | 9.72E-09 |
| 580167 | 2.84E-03 | 2.86E-07 | 2.84E-03 | 2.86E-07 | 1.88E-03 | 1.17E-07 | 5.26E-05 | 9.71E-09 |
| 580177 | 2.84E-03 | 2.86E-07 | 2.84E-03 | 2.86E-07 | 1.88E-03 | 1.17E-07 | 5.26E-05 | 9.71E-09 |
| 580187 | 2.84E-03 | 2.86E-07 | 2.84E-03 | 2.86E-07 | 1.88E-03 | 1.17E-07 | 5.26E-05 | 9.71E-09 |
| 580197 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 580207 | 2.82E-03 | 2.86E-07 | 2.82E-03 | 2.86E-07 | 1.87E-03 | 1.17E-07 | 5.23E-05 | 9.71E-09 |
| 581118 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581119 | 2.86E+00 | 3.82E-05 | 8.17E-01 | 3.82E-05 | 1.42E-01 | 1.53E-05 | 4.77E-03 | 1.34E-06 |
| 581120 | 6.35E+00 | 3.82E-05 | 1.63E+00 | 3.82E-05 | 1.80E-01 | 1.53E-05 | 6.94E-03 | 1.34E-06 |
| 581121 | 1.39E+01 | 3.82E-05 | 3.40E+00 | 3.82E-05 | 2.64E-01 | 1.53E-05 | 1.16E-02 | 1.34E-06 |
| 581122 | 3.08E+01 | 3.82E-05 | 7.35E+00 | 3.82E-05 | 4.51E-01 | 1.53E-05 | 2.21E-02 | 1.34E-06 |
| 581123 | 6.57E+01 | 5.27E-05 | 1.55E+01 | 5.07E-05 | 8.40E-01 | 1.82E-05 | 4.38E-02 | 1.56E-06 |
| 581124 | 1.19E+02 | 5.36E-05 | 2.81E+01 | 5.14E-05 | 1.43E+00 | 1.84E-05 | 7.72E-02 | 1.58E-06 |
| 581125 | 2.05E+02 | 5.20E-05 | 4.83E+01 | 4.99E-05 | 2.39E+00 | 1.81E-05 | 1.30E-01 | 1.56E-06 |
| 581126 | 3.40E+02 | 5.12E-05 | 7.98E+01 | 4.92E-05 | 3.87E+00 | 1.79E-05 | 2.14E-01 | 1.54E-06 |
| 581127 | 5.66E+02 | 5.01E-05 | 1.33E+02 | 4.83E-05 | 6.38E+00 | 1.77E-05 | 3.54E-01 | 1.53E-06 |
| 581128 | 7.33E+02 | 4.77E-05 | 1.72E+02 | 4.62E-05 | 8.23E+00 | 1.72E-05 | 4.57E-01 | 1.49E-06 |
| 581129 | 7.60E+02 | 4.52E-05 | 1.78E+02 | 4.41E-05 | 8.54E+00 | 1.67E-05 | 4.74E-01 | 1.45E-06 |
| 581130 | 7.16E+02 | 4.27E-05 | 1.68E+02 | 4.20E-05 | 8.04E+00 | 1.62E-05 | 4.47E-01 | 1.41E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 581131 | 4.83E+02 | 4.07E-05 | 1.13E+02 | 4.03E-05 | 5.46E+00 | 1.58E-05 | 3.02E-01 | 1.38E-06 |
| 581132 | 1.90E+02 | 3.82E-05 | 4.47E+01 | 3.82E-05 | 2.21E+00 | 1.53E-05 | 1.21E-01 | 1.34E-06 |
| 581133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581141 | 1.97E-01 | 3.04E-04 | 1.96E-01 | 2.62E-04 | 1.13E-01 | 7.29E-05 | 3.17E-03 | 5.40E-06 |
| 581142 | 2.00E-01 | 4.67E-04 | 1.98E-01 | 3.99E-04 | 1.14E-01 | 1.08E-04 | 3.20E-03 | 7.89E-06 |
| 581143 | 2.05E-01 | 6.76E-04 | 2.01E-01 | 5.76E-04 | 1.15E-01 | 1.53E-04 | 3.24E-03 | 1.11E-05 |
| 581144 | 2.10E-01 | 8.99E-04 | 2.04E-01 | 7.63E-04 | 1.15E-01 | 2.02E-04 | 3.28E-03 | 1.45E-05 |
| 581145 | 2.14E-01 | 9.66E-04 | 2.06E-01 | 8.20E-04 | 1.16E-01 | 2.16E-04 | 3.30E-03 | 1.55E-05 |
| 581146 | 2.54E-01 | 1.16E-03 | 2.31E-01 | 9.86E-04 | 1.22E-01 | 2.59E-04 | 3.62E-03 | 1.86E-05 |
| 581147 | 2.34E-01 | 2.22E-02 | 2.19E-01 | 2.20E-02 | 1.19E-01 | 4.47E-03 | 3.46E-03 | 2.43E-04 |
| 581148 | 2.14E-01 | 9.75E-04 | 2.06E-01 | 8.27E-04 | 1.16E-01 | 2.18E-04 | 3.30E-03 | 1.56E-05 |
| 581149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 581156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582118 | 1.99E+00 | 3.82E-05 | 6.14E-01 | 3.82E-05 | 1.32E-01 | 1.53E-05 | 4.24E-03 | 1.34E-06 |
| 582119 | 4.15E+00 | 3.82E-05 | 1.12E+00 | 3.82E-05 | 1.56E-01 | 1.53E-05 | 5.57E-03 | 1.34E-06 |
| 582120 | 8.57E+00 | 3.82E-05 | 2.15E+00 | 3.82E-05 | 2.05E-01 | 1.53E-05 | 8.31E-03 | 1.34E-06 |
| 582121 | 1.79E+01 | 3.82E-05 | 4.34E+00 | 3.82E-05 | 3.08E-01 | 1.53E-05 | 1.41E-02 | 1.34E-06 |
| 582122 | 3.84E+01 | 5.26E-05 | 9.16E+00 | 5.06E-05 | 5.38E-01 | 1.82E-05 | 2.69E-02 | 1.56E-06 |
| 582123 | 6.62E+01 | 5.64E-05 | 1.57E+01 | 5.38E-05 | 8.46E-01 | 1.89E-05 | 4.41E-02 | 1.62E-06 |
| 582124 | 1.12E+02 | 5.64E-05 | 2.63E+01 | 5.35E-05 | 1.35E+00 | 1.90E-05 | 7.22E-02 | 1.62E-06 |
| 582125 | 1.67E+02 | 5.66E-05 | 3.93E+01 | 5.37E-05 | 1.96E+00 | 1.90E-05 | 1.07E-01 | 1.63E-06 |
| 582126 | 2.26E+02 | 5.54E-05 | 5.32E+01 | 5.27E-05 | 2.62E+00 | 1.88E-05 | 1.43E-01 | 1.61E-06 |
| 582127 | 2.78E+02 | 5.33E-05 | 6.53E+01 | 5.09E-05 | 3.19E+00 | 1.84E-05 | 1.75E-01 | 1.58E-06 |
| 582128 | 3.11E+02 | 5.04E-05 | 7.30E+01 | 4.85E-05 | 3.55E+00 | 1.78E-05 | 1.96E-01 | 1.53E-06 |
| 582129 | 2.80E+02 | 4.72E-05 | 6.59E+01 | 4.58E-05 | 3.22E+00 | 1.71E-05 | 1.77E-01 | 1.48E-06 |
| 582130 | 2.09E+02 | 4.41E-05 | 4.91E+01 | 4.32E-05 | 2.42E+00 | 1.65E-05 | 1.32E-01 | 1.43E-06 |
| 582131 | 1.30E+02 | 3.82E-05 | 3.06E+01 | 3.82E-05 | 1.55E+00 | 1.53E-05 | 8.36E-02 | 1.34E-06 |
| 582132 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 582140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582141 | 1.97E-01 | 3.17E-04 | 1.96E-01 | 2.73E-04 | 1.13E-01 | 7.59E-05 | 3.17E-03 | 5.61E-06 |
| 582142 | 2.01E-01 | 4.90E-04 | 1.98E-01 | 4.18E-04 | 1.14E-01 | 1.13E-04 | 3.20E-03 | 8.24E-06 |
| 582143 | 2.05E-01 | 6.91E-04 | 2.01E-01 | 5.88E-04 | 1.15E-01 | 1.57E-04 | 3.24E-03 | 1.13E-05 |
| 582144 | 2.24E-01 | 8.90E-04 | 2.13E-01 | 7.56E-04 | 1.18E-01 | 2.00E-04 | 3.40E-03 | 1.43E-05 |
| 582145 | 4.71E-01 | 1.04E-03 | 3.76E-01 | 8.84E-04 | 1.54E-01 | 2.33E-04 | 5.43E-03 | 1.67E-05 |
| 582146 | 8.98E-01 | 1.10E-03 | 6.56E-01 | 9.35E-04 | 2.17E-01 | 2.46E-04 | 8.96E-03 | 1.77E-05 |
| 582147 | 7.78E-01 | 2.10E-03 | 5.76E-01 | 1.77E-03 | 2.01E-01 | 4.62E-04 | 7.98E-03 | 3.28E-05 |
| 582148 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 582156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583116 | 5.25E-01 | 0.00E+00 | 1.23E-01 | 0.00E+00 | 5.82E-03 | 0.00E+00 | 3.25E-04 | 0.00E+00 |
| 583117 | 1.14E+00 | 0.00E+00 | 2.68E-01 | 0.00E+00 | 1.27E-02 | 0.00E+00 | 7.09E-04 | 0.00E+00 |
| 583118 | 2.62E+00 | 3.82E-05 | 7.60E-01 | 3.82E-05 | 1.39E-01 | 1.53E-05 | 4.62E-03 | 1.34E-06 |
| 583119 | 5.09E+00 | 3.82E-05 | 1.34E+00 | 3.82E-05 | 1.66E-01 | 1.53E-05 | 6.15E-03 | 1.34E-06 |
| 583120 | 1.01E+01 | 3.82E-05 | 2.50E+00 | 3.82E-05 | 2.21E-01 | 1.53E-05 | 9.24E-03 | 1.34E-06 |
| 583121 | 1.82E+01 | 3.82E-05 | 4.41E+00 | 3.82E-05 | 3.12E-01 | 1.53E-05 | 1.43E-02 | 1.34E-06 |
| 583122 | 3.58E+01 | 5.42E-05 | 8.55E+00 | 5.19E-05 | 5.09E-01 | 1.85E-05 | 2.53E-02 | 1.59E-06 |
| 583123 | 5.79E+01 | 5.84E-05 | 1.37E+01 | 5.55E-05 | 7.55E-01 | 1.93E-05 | 3.91E-02 | 1.65E-06 |
| 583124 | 8.23E+01 | 5.93E-05 | 1.94E+01 | 5.60E-05 | 1.02E+00 | 1.96E-05 | 5.40E-02 | 1.67E-06 |
| 583125 | 1.08E+02 | 6.03E-05 | 2.54E+01 | 5.69E-05 | 1.30E+00 | 1.98E-05 | 6.98E-02 | 1.68E-06 |
| 583126 | 1.27E+02 | 5.85E-05 | 3.00E+01 | 5.54E-05 | 1.52E+00 | 1.94E-05 | 8.19E-02 | 1.66E-06 |
| 583127 | 1.38E+02 | 5.59E-05 | 3.26E+01 | 5.31E-05 | 1.64E+00 | 1.89E-05 | 8.88E-02 | 1.61E-06 |
| 583128 | 1.24E+02 | 5.23E-05 | 2.93E+01 | 5.01E-05 | 1.49E+00 | 1.82E-05 | 8.02E-02 | 1.56E-06 |
| 583129 | 9.57E+01 | 4.85E-05 | 2.26E+01 | 4.69E-05 | 1.17E+00 | 1.74E-05 | 6.23E-02 | 1.50E-06 |
| 583130 | 6.07E+01 | 4.51E-05 | 1.44E+01 | 4.40E-05 | 7.82E-01 | 1.67E-05 | 4.06E-02 | 1.45E-06 |
| 583131 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583132 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583141 | 1.97E-01 | 3.04E-04 | 1.96E-01 | 2.62E-04 | 1.13E-01 | 7.29E-05 | 3.17E-03 | 5.40E-06 |
| 583142 | 2.00E-01 | 4.67E-04 | 1.98E-01 | 3.99E-04 | 1.14E-01 | 1.08E-04 | 3.20E-03 | 7.89E-06 |
| 583143 | 2.04E-01 | 6.55E-04 | 2.00E-01 | 5.58E-04 | 1.14E-01 | 1.49E-04 | 3.23E-03 | 1.08E-05 |
| 583144 | 2.18E-01 | 8.48E-04 | 2.08E-01 | 7.21E-04 | 1.17E-01 | 1.91E-04 | 3.34E-03 | 1.38E-05 |
| 583145 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583146 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 583147 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583148 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 583156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584113 | 9.44E-02 | 0.00E+00 | 2.21E-02 | 0.00E+00 | 1.05E-03 | 0.00E+00 | 5.85E-05 | 0.00E+00 |
| 584114 | 2.43E-01 | 0.00E+00 | 5.69E-02 | 0.00E+00 | 2.69E-03 | 0.00E+00 | 1.51E-04 | 0.00E+00 |
| 584115 | 5.11E-01 | 0.00E+00 | 1.20E-01 | 0.00E+00 | 5.66E-03 | 0.00E+00 | 3.17E-04 | 0.00E+00 |
| 584116 | 8.77E-01 | 0.00E+00 | 2.05E-01 | 0.00E+00 | 9.72E-03 | 0.00E+00 | 5.44E-04 | 0.00E+00 |
| 584117 | 1.42E+00 | 0.00E+00 | 3.33E-01 | 0.00E+00 | 1.57E-02 | 0.00E+00 | 8.81E-04 | 0.00E+00 |
| 584118 | 3.10E+00 | 3.82E-05 | 8.73E-01 | 3.82E-05 | 1.44E-01 | 1.53E-05 | 4.92E-03 | 1.34E-06 |
| 584119 | 5.55E+00 | 3.82E-05 | 1.44E+00 | 3.82E-05 | 1.71E-01 | 1.53E-05 | 6.44E-03 | 1.34E-06 |
| 584120 | 9.51E+00 | 3.82E-05 | 2.37E+00 | 3.82E-05 | 2.15E-01 | 1.53E-05 | 8.90E-03 | 1.34E-06 |
| 584121 | 2.04E+01 | 5.27E-05 | 4.92E+00 | 5.04E-05 | 3.36E-01 | 1.82E-05 | 1.56E-02 | 1.57E-06 |
| 584122 | 3.03E+01 | 5.63E-05 | 7.26E+00 | 5.37E-05 | 4.48E-01 | 1.89E-05 | 2.19E-02 | 1.62E-06 |
| 584123 | 4.18E+01 | 6.04E-05 | 9.95E+00 | 5.72E-05 | 5.76E-01 | 1.97E-05 | 2.91E-02 | 1.68E-06 |
| 584124 | 5.30E+01 | 6.08E-05 | 1.26E+01 | 5.72E-05 | 6.97E-01 | 1.99E-05 | 3.58E-02 | 1.69E-06 |
| 584125 | 6.40E+01 | 6.22E-05 | 1.52E+01 | 5.85E-05 | 8.19E-01 | 2.02E-05 | 4.27E-02 | 1.71E-06 |
| 584126 | 6.46E+01 | 6.10E-05 | 1.53E+01 | 5.74E-05 | 8.25E-01 | 1.99E-05 | 4.30E-02 | 1.69E-06 |
| 584127 | 5.79E+01 | 5.79E-05 | 1.37E+01 | 5.49E-05 | 7.52E-01 | 1.93E-05 | 3.89E-02 | 1.65E-06 |
| 584128 | 4.45E+01 | 5.39E-05 | 1.06E+01 | 5.14E-05 | 6.03E-01 | 1.85E-05 | 3.06E-02 | 1.58E-06 |
| 584129 | 2.84E+01 | 4.96E-05 | 6.79E+00 | 4.78E-05 | 4.24E-01 | 1.76E-05 | 2.06E-02 | 1.52E-06 |
| 584130 | 2.70E+00 | 4.57E-05 | 7.81E-01 | 4.45E-05 | 1.40E-01 | 1.68E-05 | 4.68E-03 | 1.46E-06 |
| 584131 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584132 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584141 | 1.96E-01 | 2.63E-04 | 1.95E-01 | 2.28E-04 | 1.13E-01 | 6.42E-05 | 3.16E-03 | 4.78E-06 |
| 584142 | 1.99E-01 | 4.00E-04 | 1.97E-01 | 3.43E-04 | 1.13E-01 | 9.38E-05 | 3.19E-03 | 6.87E-06 |
| 584143 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584144 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584145 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584146 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584147 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584148 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 584151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 584156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585113 | 1.37E-01 | 0.00E+00 | 3.21E-02 | 0.00E+00 | 1.52E-03 | 0.00E+00 | 8.50E-05 | 0.00E+00 |
| 585114 | 3.50E-01 | 0.00E+00 | 8.19E-02 | 0.00E+00 | 3.87E-03 | 0.00E+00 | 2.17E-04 | 0.00E+00 |
| 585115 | 7.33E-01 | 0.00E+00 | 1.72E-01 | 0.00E+00 | 8.12E-03 | 0.00E+00 | 4.54E-04 | 0.00E+00 |
| 585116 | 1.24E+00 | 0.00E+00 | 2.91E-01 | 0.00E+00 | 1.38E-02 | 0.00E+00 | 7.71E-04 | 0.00E+00 |
| 585117 | 1.74E+00 | 0.00E+00 | 4.08E-01 | 0.00E+00 | 1.93E-02 | 0.00E+00 | 1.08E-03 | 0.00E+00 |
| 585118 | 3.00E+00 | 3.82E-05 | 8.51E-01 | 3.82E-05 | 1.43E-01 | 1.53E-05 | 4.86E-03 | 1.34E-06 |
| 585119 | 4.92E+00 | 3.82E-05 | 1.30E+00 | 3.82E-05 | 1.64E-01 | 1.53E-05 | 6.05E-03 | 1.34E-06 |
| 585120 | 1.26E+01 | 5.17E-05 | 3.10E+00 | 4.96E-05 | 2.50E-01 | 1.80E-05 | 1.08E-02 | 1.55E-06 |
| 585121 | 1.78E+01 | 5.57E-05 | 4.31E+00 | 5.30E-05 | 3.07E-01 | 1.89E-05 | 1.40E-02 | 1.61E-06 |
| 585122 | 2.21E+01 | 5.77E-05 | 5.33E+00 | 5.50E-05 | 3.57E-01 | 1.92E-05 | 1.68E-02 | 1.64E-06 |
| 585123 | 2.74E+01 | 6.18E-05 | 6.57E+00 | 5.85E-05 | 4.16E-01 | 2.00E-05 | 2.02E-02 | 1.70E-06 |
| 585124 | 3.24E+01 | 6.21E-05 | 7.74E+00 | 5.85E-05 | 4.69E-01 | 2.02E-05 | 2.31E-02 | 1.71E-06 |
| 585125 | 3.36E+01 | 6.31E-05 | 8.02E+00 | 5.93E-05 | 4.82E-01 | 2.04E-05 | 2.38E-02 | 1.73E-06 |
| 585126 | 3.08E+01 | 6.26E-05 | 7.35E+00 | 5.88E-05 | 4.51E-01 | 2.02E-05 | 2.21E-02 | 1.72E-06 |
| 585127 | 2.47E+01 | 5.86E-05 | 5.92E+00 | 5.54E-05 | 3.83E-01 | 1.94E-05 | 1.83E-02 | 1.66E-06 |
| 585128 | 1.73E+01 | 5.41E-05 | 4.21E+00 | 5.17E-05 | 3.02E-01 | 1.85E-05 | 1.37E-02 | 1.59E-06 |
| 585129 | 1.01E+01 | 4.97E-05 | 2.50E+00 | 4.79E-05 | 2.21E-01 | 1.76E-05 | 9.25E-03 | 1.52E-06 |
| 585130 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585131 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585132 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585142 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585143 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585144 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585145 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585146 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585147 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585148 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 585155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 585156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586113 | 1.60E-01 | 0.00E+00 | 3.74E-02 | 0.00E+00 | 1.77E-03 | 0.00E+00 | 9.91E-05 | 0.00E+00 |
| 586114 | 4.08E-01 | 0.00E+00 | 9.56E-02 | 0.00E+00 | 4.52E-03 | 0.00E+00 | 2.53E-04 | 0.00E+00 |
| 586115 | 8.60E-01 | 0.00E+00 | 2.01E-01 | 0.00E+00 | 9.53E-03 | 0.00E+00 | 5.33E-04 | 0.00E+00 |
| 586116 | 1.45E+00 | 0.00E+00 | 3.41E-01 | 0.00E+00 | 1.61E-02 | 0.00E+00 | 9.01E-04 | 0.00E+00 |
| 586117 | 2.04E+00 | 0.00E+00 | 4.78E-01 | 0.00E+00 | 2.26E-02 | 0.00E+00 | 1.27E-03 | 0.00E+00 |
| 586118 | 2.54E+00 | 3.82E-05 | 7.43E-01 | 3.82E-05 | 1.38E-01 | 1.53E-05 | 4.58E-03 | 1.34E-06 |
| 586119 | 3.98E+00 | 3.82E-05 | 1.08E+00 | 3.82E-05 | 1.54E-01 | 1.53E-05 | 5.47E-03 | 1.34E-06 |
| 586120 | 1.11E+01 | 5.41E-05 | 2.74E+00 | 5.17E-05 | 2.33E-01 | 1.85E-05 | 9.87E-03 | 1.59E-06 |
| 586121 | 1.44E+01 | 5.83E-05 | 3.51E+00 | 5.52E-05 | 2.69E-01 | 1.94E-05 | 1.19E-02 | 1.65E-06 |
| 586122 | 1.57E+01 | 5.85E-05 | 3.84E+00 | 5.56E-05 | 2.86E-01 | 1.94E-05 | 1.29E-02 | 1.65E-06 |
| 586123 | 1.81E+01 | 6.25E-05 | 4.39E+00 | 5.91E-05 | 3.13E-01 | 2.02E-05 | 1.44E-02 | 1.71E-06 |
| 586124 | 1.91E+01 | 6.28E-05 | 4.62E+00 | 5.90E-05 | 3.22E-01 | 2.03E-05 | 1.48E-02 | 1.72E-06 |
| 586125 | 1.86E+01 | 6.39E-05 | 4.49E+00 | 6.00E-05 | 3.16E-01 | 2.05E-05 | 1.45E-02 | 1.74E-06 |
| 586126 | 1.60E+01 | 6.27E-05 | 3.90E+00 | 5.88E-05 | 2.87E-01 | 2.03E-05 | 1.29E-02 | 1.72E-06 |
| 586127 | 1.29E+01 | 6.01E-05 | 3.15E+00 | 5.68E-05 | 2.52E-01 | 1.98E-05 | 1.10E-02 | 1.68E-06 |
| 586128 | 8.40E+00 | 5.37E-05 | 2.11E+00 | 5.13E-05 | 2.03E-01 | 1.84E-05 | 8.22E-03 | 1.58E-06 |
| 586129 | 3.90E+00 | 4.93E-05 | 1.06E+00 | 4.76E-05 | 1.53E-01 | 1.75E-05 | 5.43E-03 | 1.51E-06 |
| 586130 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586131 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586132 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586133 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586134 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586135 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586136 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586137 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586138 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586139 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586140 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586141 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586142 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586143 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586144 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586145 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586146 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586147 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586148 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586149 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586150 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586151 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586152 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586153 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586154 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586155 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 586156 | 1.92E-01 | 3.82E-05 | 1.92E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587113 | 1.55E-01 | 0.00E+00 | 3.64E-02 | 0.00E+00 | 1.72E-03 | 0.00E+00 | 9.63E-05 | 0.00E+00 |
| 587114 | 3.87E-01 | 0.00E+00 | 9.07E-02 | 0.00E+00 | 4.29E-03 | 0.00E+00 | 2.40E-04 | 0.00E+00 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 587115 | 8.27E-01 | 0.00E+00 | 1.94E-01 | 0.00E+00 | 9.16E-03 | 0.00E+00 | 5.13E-04 | 0.00E+00 |
| 587116 | 1.40E+00 | 0.00E+00 | 3.28E-01 | 0.00E+00 | 1.55E-02 | 0.00E+00 | 8.67E-04 | 0.00E+00 |
| 587117 | 1.96E+00 | 0.00E+00 | 4.60E-01 | 0.00E+00 | 2.18E-02 | 0.00E+00 | 1.22E-03 | 0.00E+00 |
| 587118 | 2.35E+00 | 3.82E-05 | 6.98E-01 | 3.82E-05 | 1.36E-01 | 1.53E-05 | 4.46E-03 | 1.34E-06 |
| 587119 | 7.63E+00 | 5.26E-05 | 1.93E+00 | 5.03E-05 | 1.94E-01 | 1.82E-05 | 7.74E-03 | 1.56E-06 |
| 587120 | 9.79E+00 | 5.66E-05 | 2.44E+00 | 5.38E-05 | 2.18E-01 | 1.91E-05 | 9.08E-03 | 1.63E-06 |
| 587121 | 1.21E+01 | 6.09E-05 | 2.99E+00 | 5.74E-05 | 2.44E-01 | 1.99E-05 | 1.05E-02 | 1.69E-06 |
| 587122 | 1.40E+01 | 6.46E-05 | 3.41E+00 | 6.05E-05 | 2.65E-01 | 2.07E-05 | 1.17E-02 | 1.75E-06 |
| 587123 | 1.23E+01 | 6.26E-05 | 3.03E+00 | 5.91E-05 | 2.49E-01 | 2.02E-05 | 1.08E-02 | 1.72E-06 |
| 587124 | 1.27E+01 | 6.27E-05 | 3.11E+00 | 5.88E-05 | 2.50E-01 | 2.03E-05 | 1.09E-02 | 1.72E-06 |
| 587125 | 1.24E+01 | 6.37E-05 | 3.04E+00 | 5.98E-05 | 2.47E-01 | 2.05E-05 | 1.07E-02 | 1.74E-06 |
| 587126 | 1.06E+01 | 6.19E-05 | 2.63E+00 | 5.83E-05 | 2.28E-01 | 2.01E-05 | 9.60E-03 | 1.71E-06 |
| 587127 | 8.79E+00 | 5.93E-05 | 2.20E+00 | 5.60E-05 | 2.08E-01 | 1.96E-05 | 8.46E-03 | 1.67E-06 |
| 587128 | 6.24E+00 | 5.59E-05 | 1.61E+00 | 5.31E-05 | 1.79E-01 | 1.89E-05 | 6.88E-03 | 1.62E-06 |
| 587129 | 6.18E+00 | 5.57E-05 | 1.59E+00 | 5.30E-05 | 1.79E-01 | 1.89E-05 | 6.85E-03 | 1.61E-06 |
| 587130 | 1.94E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 587131 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 587132 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 587133 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587134 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587135 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587136 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587137 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587138 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587139 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587140 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587141 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587142 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587143 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587144 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587145 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587146 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587147 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587148 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587149 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587150 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587151 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587152 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587153 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587154 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587155 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 587156 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588113 | 1.23E-01 | 0.00E+00 | 2.89E-02 | 0.00E+00 | 1.37E-03 | 0.00E+00 | 7.64E-05 | 0.00E+00 |
| 588114 | 3.06E-01 | 0.00E+00 | 7.18E-02 | 0.00E+00 | 3.39E-03 | 0.00E+00 | 1.90E-04 | 0.00E+00 |
| 588115 | 6.38E-01 | 0.00E+00 | 1.49E-01 | 0.00E+00 | 7.07E-03 | 0.00E+00 | 3.96E-04 | 0.00E+00 |
| 588116 | 1.10E+00 | 0.00E+00 | 2.59E-01 | 0.00E+00 | 1.22E-02 | 0.00E+00 | 6.85E-04 | 0.00E+00 |
| 588117 | 1.48E+00 | 0.00E+00 | 3.46E-01 | 0.00E+00 | 1.64E-02 | 0.00E+00 | 9.15E-04 | 0.00E+00 |
| 588118 | 5.96E+00 | 5.06E-05 | 1.54E+00 | 4.87E-05 | 1.76E-01 | 1.78E-05 | 6.71E-03 | 1.54E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 588119 | 7.18E+00 | 5.45E-05 | 1.83E+00 | 5.20E-05 | 1.90E-01 | 1.86E-05 | 7.46E-03 | 1.59E-06 |
| 588120 | 9.13E+00 | 5.88E-05 | 2.28E+00 | 5.56E-05 | 2.11E-01 | 1.95E-05 | 8.67E-03 | 1.66E-06 |
| 588121 | 1.09E+01 | 6.30E-05 | 2.69E+00 | 5.92E-05 | 2.30E-01 | 2.04E-05 | 9.73E-03 | 1.72E-06 |
| 588122 | 1.22E+01 | 6.68E-05 | 3.00E+00 | 6.23E-05 | 2.45E-01 | 2.11E-05 | 1.06E-02 | 1.78E-06 |
| 588123 | 1.30E+01 | 6.97E-05 | 3.19E+00 | 6.48E-05 | 2.54E-01 | 2.17E-05 | 1.11E-02 | 1.83E-06 |
| 588124 | 1.32E+01 | 7.10E-05 | 3.23E+00 | 6.59E-05 | 2.56E-01 | 2.20E-05 | 1.12E-02 | 1.85E-06 |
| 588125 | 9.60E+00 | 6.29E-05 | 2.41E+00 | 5.91E-05 | 2.17E-01 | 2.03E-05 | 9.01E-03 | 1.72E-06 |
| 588126 | 8.57E+00 | 6.07E-05 | 2.15E+00 | 5.72E-05 | 2.05E-01 | 1.99E-05 | 8.32E-03 | 1.69E-06 |
| 588127 | 9.74E+00 | 6.54E-05 | 2.43E+00 | 6.12E-05 | 2.18E-01 | 2.08E-05 | 9.05E-03 | 1.76E-06 |
| 588128 | 8.07E+00 | 6.09E-05 | 2.04E+00 | 5.73E-05 | 1.99E-01 | 1.99E-05 | 8.01E-03 | 1.69E-06 |
| 588129 | 6.35E+00 | 5.60E-05 | 1.63E+00 | 5.33E-05 | 1.80E-01 | 1.89E-05 | 6.95E-03 | 1.62E-06 |
| 588130 | 4.69E+00 | 5.14E-05 | 1.24E+00 | 4.94E-05 | 1.62E-01 | 1.80E-05 | 5.92E-03 | 1.55E-06 |
| 588131 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 588132 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 588133 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588134 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588135 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588136 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588137 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588138 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588139 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588140 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588141 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588142 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588143 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588144 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588145 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588146 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588147 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588148 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588149 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588150 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588151 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588152 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588153 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588154 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588155 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 588156 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589113 | 7.94E-02 | 0.00E+00 | 1.86E-02 | 0.00E+00 | 8.79E-04 | 0.00E+00 | 4.92E-05 | 0.00E+00 |
| 589114 | 1.98E-01 | 0.00E+00 | 4.64E-02 | 0.00E+00 | 2.20E-03 | 0.00E+00 | 1.23E-04 | 0.00E+00 |
| 589115 | 4.18E-01 | 0.00E+00 | 9.79E-02 | 0.00E+00 | 4.63E-03 | 0.00E+00 | 2.59E-04 | 0.00E+00 |
| 589116 | 6.88E-01 | 0.00E+00 | 1.61E-01 | 0.00E+00 | 7.63E-03 | 0.00E+00 | 4.27E-04 | 0.00E+00 |
| 589117 | 8.27E-01 | 0.00E+00 | 1.94E-01 | 0.00E+00 | 9.16E-03 | 0.00E+00 | 5.13E-04 | 0.00E+00 |
| 589118 | 6.02E+00 | 5.23E-05 | 1.56E+00 | 5.01E-05 | 1.77E-01 | 1.82E-05 | 6.74E-03 | 1.56E-06 |
| 589119 | 7.35E+00 | 5.63E-05 | 1.87E+00 | 5.35E-05 | 1.91E-01 | 1.90E-05 | 7.57E-03 | 1.62E-06 |
| 589120 | 8.85E+00 | 6.06E-05 | 2.22E+00 | 5.72E-05 | 2.08E-01 | 1.99E-05 | 8.50E-03 | 1.69E-06 |
| 589121 | 1.04E+01 | 6.47E-05 | 2.58E+00 | 6.06E-05 | 2.25E-01 | 2.07E-05 | 9.46E-03 | 1.75E-06 |
| 589122 | 1.17E+01 | 6.83E-05 | 2.88E+00 | 6.36E-05 | 2.39E-01 | 2.14E-05 | 1.03E-02 | 1.80E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 589123 | 1.27E+01 | 7.08E-05 | 3.13E+00 | 6.57E-05 | 2.51E-01 | 2.19E-05 | 1.09E-02 | 1.84E-06 |
| 589124 | 1.31E+01 | 7.19E-05 | 3.21E+00 | 6.67E-05 | 2.55E-01 | 2.22E-05 | 1.11E-02 | 1.86E-06 |
| 589125 | 1.22E+01 | 7.14E-05 | 3.01E+00 | 6.62E-05 | 2.45E-01 | 2.21E-05 | 1.06E-02 | 1.85E-06 |
| 589126 | 1.13E+01 | 6.91E-05 | 2.79E+00 | 6.43E-05 | 2.35E-01 | 2.16E-05 | 1.00E-02 | 1.82E-06 |
| 589127 | 9.79E+00 | 4.10E-03 | 2.44E+00 | 4.09E-03 | 2.18E-01 | 5.29E-04 | 9.08E-03 | 2.75E-05 |
| 589128 | 8.18E+00 | 6.10E-05 | 2.06E+00 | 5.75E-05 | 2.01E-01 | 2.00E-05 | 8.08E-03 | 1.69E-06 |
| 589129 | 6.46E+00 | 5.64E-05 | 1.66E+00 | 5.35E-05 | 1.82E-01 | 1.90E-05 | 7.02E-03 | 1.62E-06 |
| 589130 | 4.76E+00 | 5.16E-05 | 1.26E+00 | 4.95E-05 | 1.63E-01 | 1.80E-05 | 5.96E-03 | 1.55E-06 |
| 589131 | 1.94E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 589132 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 589133 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 589134 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589135 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589136 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589137 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589138 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589139 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589140 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589141 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589142 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589143 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589144 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589145 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589146 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589147 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589148 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589149 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589150 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589151 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589152 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589153 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589154 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589155 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 589156 | 1.93E-01 | 3.82E-05 | 1.93E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.12E-03 | 1.34E-06 |
| 590057 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590067 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590077 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590087 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590097 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590113 | 4.23E-02 | 0.00E+00 | 9.92E-03 | 0.00E+00 | 4.69E-04 | 0.00E+00 | 2.62E-05 | 0.00E+00 |
| 590114 | 1.04E-01 | 0.00E+00 | 2.44E-02 | 0.00E+00 | 1.16E-03 | 0.00E+00 | 6.47E-05 | 0.00E+00 |
| 590115 | 2.14E-01 | 0.00E+00 | 5.02E-02 | 0.00E+00 | 2.37E-03 | 0.00E+00 | 1.33E-04 | 0.00E+00 |
| 590116 | 3.17E-01 | 0.00E+00 | 7.44E-02 | 0.00E+00 | 3.52E-03 | 0.00E+00 | 1.97E-04 | 0.00E+00 |
| 590117 | 4.61E+00 | 1.19E-05 | 1.08E+00 | 1.01E-05 | 5.11E-02 | 2.44E-06 | 2.86E-03 | 1.83E-07 |
| 590118 | 6.13E+00 | 5.38E-05 | 1.58E+00 | 5.13E-05 | 1.78E-01 | 1.84E-05 | 6.81E-03 | 1.58E-06 |
| 590119 | 7.63E+00 | 5.78E-05 | 1.93E+00 | 5.48E-05 | 1.95E-01 | 1.93E-05 | 7.74E-03 | 1.65E-06 |
| 590120 | 9.13E+00 | 6.21E-05 | 2.28E+00 | 5.84E-05 | 2.11E-01 | 2.02E-05 | 8.67E-03 | 1.71E-06 |
| 590121 | 1.04E+01 | 7.24E-02 | 2.59E+00 | 7.24E-02 | 2.25E-01 | 4.12E-02 | 9.46E-03 | 2.65E-03 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 590122 | 1.17E+01 | 6.93E-05 | 2.90E+00 | 6.45E-05 | 2.40E-01 | 2.16E-05 | 1.03E-02 | 1.82E-06 |
| 590123 | 1.27E+01 | 7.15E-05 | 3.14E+00 | 6.63E-05 | 2.51E-01 | 2.21E-05 | 1.09E-02 | 1.85E-06 |
| 590124 | 1.29E+01 | 7.23E-05 | 3.16E+00 | 6.70E-05 | 2.52E-01 | 2.22E-05 | 1.10E-02 | 1.87E-06 |
| 590125 | 1.21E+01 | 7.14E-05 | 3.00E+00 | 6.62E-05 | 2.44E-01 | 2.21E-05 | 1.05E-02 | 1.85E-06 |
| 590126 | 1.11E+01 | 6.91E-05 | 2.76E+00 | 6.42E-05 | 2.33E-01 | 2.16E-05 | 9.91E-03 | 1.82E-06 |
| 590127 | 9.86E+00 | 6.55E-05 | 2.46E+00 | 6.12E-05 | 2.19E-01 | 2.08E-05 | 9.12E-03 | 1.76E-06 |
| 590128 | 8.19E+00 | 6.10E-05 | 2.07E+00 | 5.74E-05 | 2.01E-01 | 1.99E-05 | 8.08E-03 | 1.69E-06 |
| 590129 | 6.47E+00 | 5.63E-05 | 1.67E+00 | 5.35E-05 | 1.82E-01 | 1.90E-05 | 7.02E-03 | 1.62E-06 |
| 590130 | 4.84E+00 | 5.17E-05 | 1.29E+00 | 4.96E-05 | 1.64E-01 | 1.80E-05 | 6.01E-03 | 1.55E-06 |
| 590131 | 1.98E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590132 | 1.97E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590133 | 1.97E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590134 | 1.97E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 590147 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590157 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590167 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590177 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590187 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590197 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 590207 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 591108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591113 | 2.15E-01 | 3.82E-05 | 2.01E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.14E-03 | 1.34E-06 |
| 591114 | 2.41E-01 | 3.82E-05 | 2.07E-01 | 3.82E-05 | 1.13E-01 | 1.53E-05 | 3.15E-03 | 1.34E-06 |
| 591115 | 2.79E-01 | 3.82E-05 | 2.16E-01 | 3.82E-05 | 1.13E-01 | 1.53E-05 | 3.18E-03 | 1.34E-06 |
| 591116 | 3.35E-01 | 3.82E-05 | 2.29E-01 | 3.82E-05 | 1.14E-01 | 1.53E-05 | 3.21E-03 | 1.34E-06 |
| 591117 | 5.05E+00 | 5.14E-05 | 1.34E+00 | 4.93E-05 | 1.66E-01 | 1.80E-05 | 6.14E-03 | 1.55E-06 |
| 591118 | 6.42E+00 | 5.51E-05 | 1.66E+00 | 5.25E-05 | 1.81E-01 | 1.87E-05 | 6.98E-03 | 1.60E-06 |
| 591119 | 7.86E+00 | 5.92E-05 | 1.99E+00 | 5.59E-05 | 1.97E-01 | 1.96E-05 | 7.88E-03 | 1.67E-06 |
| 591120 | 9.30E+00 | 6.31E-05 | 2.33E+00 | 5.93E-05 | 2.13E-01 | 2.04E-05 | 8.77E-03 | 1.73E-06 |
| 591121 | 1.07E+01 | 6.69E-05 | 2.66E+00 | 6.24E-05 | 2.28E-01 | 2.11E-05 | 9.63E-03 | 1.78E-06 |
| 591122 | 1.23E+01 | 6.98E-05 | 3.31E+00 | 6.49E-05 | 2.83E-01 | 2.17E-05 | 1.80E-02 | 1.83E-06 |
| 591123 | 1.27E+01 | 7.16E-05 | 3.14E+00 | 6.64E-05 | 2.51E-01 | 2.21E-05 | 1.09E-02 | 1.86E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 591124 | 1.26E+01 | 7.21E-05 | 3.11E+00 | 6.69E-05 | 2.50E-01 | 2.22E-05 | 1.08E-02 | 1.86E-06 |
| 591125 | 1.20E+01 | 7.10E-05 | 2.96E+00 | 6.60E-05 | 2.42E-01 | 2.20E-05 | 1.04E-02 | 1.85E-06 |
| 591126 | 1.11E+01 | 6.86E-05 | 2.75E+00 | 6.39E-05 | 2.33E-01 | 2.15E-05 | 9.87E-03 | 1.81E-06 |
| 591127 | 9.75E+00 | 6.49E-05 | 2.44E+00 | 6.08E-05 | 2.18E-01 | 2.07E-05 | 9.05E-03 | 1.75E-06 |
| 591128 | 8.08E+00 | 6.06E-05 | 2.05E+00 | 5.72E-05 | 1.99E-01 | 1.99E-05 | 8.01E-03 | 1.69E-06 |
| 591129 | 6.42E+00 | 5.59E-05 | 1.66E+00 | 5.32E-05 | 1.81E-01 | 1.89E-05 | 6.98E-03 | 1.62E-06 |
| 591130 | 4.83E+00 | 5.16E-05 | 1.29E+00 | 4.95E-05 | 1.63E-01 | 1.80E-05 | 6.00E-03 | 1.55E-06 |
| 591131 | 1.99E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591132 | 1.98E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591133 | 1.97E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591134 | 1.97E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591135 | 1.97E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 591146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592113 | 2.03E-01 | 3.82E-05 | 1.98E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592114 | 2.11E-01 | 3.82E-05 | 2.00E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592115 | 2.26E-01 | 3.82E-05 | 2.03E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.14E-03 | 1.34E-06 |
| 592116 | 4.17E+00 | 2.40E-03 | 1.13E+00 | 2.40E-03 | 1.56E-01 | 4.63E-04 | 5.59E-03 | 2.50E-05 |
| 592117 | 5.37E+00 | 5.24E-05 | 1.41E+00 | 5.02E-05 | 1.69E-01 | 1.82E-05 | 6.34E-03 | 1.56E-06 |
| 592118 | 6.75E+00 | 5.62E-05 | 1.73E+00 | 5.34E-05 | 1.85E-01 | 1.89E-05 | 7.19E-03 | 1.62E-06 |
| 592119 | 8.14E+00 | 6.01E-05 | 2.06E+00 | 5.67E-05 | 2.00E-01 | 1.97E-05 | 8.05E-03 | 1.68E-06 |
| 592120 | 9.58E+00 | 6.40E-05 | 2.40E+00 | 6.00E-05 | 2.16E-01 | 2.05E-05 | 8.94E-03 | 1.74E-06 |
| 592121 | 1.09E+01 | 6.73E-05 | 2.70E+00 | 6.28E-05 | 2.30E-01 | 2.12E-05 | 9.73E-03 | 1.79E-06 |
| 592122 | 1.21E+01 | 6.99E-05 | 3.00E+00 | 6.50E-05 | 2.44E-01 | 2.17E-05 | 1.05E-02 | 1.83E-06 |
| 592123 | 1.26E+01 | 7.14E-05 | 3.10E+00 | 6.63E-05 | 2.49E-01 | 2.21E-05 | 1.08E-02 | 1.85E-06 |
| 592124 | 1.24E+01 | 7.15E-05 | 3.06E+00 | 6.64E-05 | 2.47E-01 | 2.21E-05 | 1.07E-02 | 1.85E-06 |
| 592125 | 1.18E+01 | 7.02E-05 | 2.92E+00 | 6.53E-05 | 2.41E-01 | 2.18E-05 | 1.03E-02 | 1.84E-06 |
| 592126 | 1.08E+01 | 6.77E-05 | 2.68E+00 | 6.32E-05 | 2.29E-01 | 2.13E-05 | 9.70E-03 | 1.80E-06 |
| 592127 | 9.41E+00 | 6.42E-05 | 2.36E+00 | 6.02E-05 | 2.14E-01 | 2.06E-05 | 8.84E-03 | 1.74E-06 |
| 592128 | 7.86E+00 | 5.99E-05 | 1.99E+00 | 5.66E-05 | 1.97E-01 | 1.97E-05 | 7.88E-03 | 1.68E-06 |
| 592129 | 6.31E+00 | 5.55E-05 | 1.63E+00 | 5.28E-05 | 1.80E-01 | 1.88E-05 | 6.91E-03 | 1.61E-06 |
| 592130 | 4.77E+00 | 5.13E-05 | 1.27E+00 | 4.93E-05 | 1.63E-01 | 1.80E-05 | 5.96E-03 | 1.55E-06 |
| 592131 | 2.01E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592132 | 1.98E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 592133 | 1.97E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592134 | 1.97E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 592146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593113 | 1.98E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593114 | 2.01E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593115 | 2.06E-01 | 3.82E-05 | 1.99E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593116 | 4.41E+00 | 2.39E-03 | 1.18E+00 | 2.38E-03 | 1.59E-01 | 4.53E-04 | 5.74E-03 | 2.44E-05 |
| 593117 | 5.63E+00 | 5.33E-05 | 1.47E+00 | 5.09E-05 | 1.72E-01 | 1.83E-05 | 6.50E-03 | 1.58E-06 |
| 593118 | 7.03E+00 | 5.71E-05 | 1.80E+00 | 5.41E-05 | 1.88E-01 | 1.91E-05 | 7.36E-03 | 1.63E-06 |
| 593119 | 8.41E+00 | 6.07E-05 | 2.12E+00 | 5.73E-05 | 2.03E-01 | 1.99E-05 | 8.22E-03 | 1.69E-06 |
| 593120 | 9.80E+00 | 6.43E-05 | 2.45E+00 | 6.03E-05 | 2.18E-01 | 2.06E-05 | 9.08E-03 | 1.74E-06 |
| 593121 | 1.10E+01 | 6.74E-05 | 2.72E+00 | 6.29E-05 | 2.31E-01 | 2.12E-05 | 9.80E-03 | 1.79E-06 |
| 593122 | 1.21E+01 | 6.97E-05 | 2.98E+00 | 6.49E-05 | 2.44E-01 | 2.17E-05 | 1.05E-02 | 1.83E-06 |
| 593123 | 1.24E+01 | 7.09E-05 | 3.06E+00 | 6.59E-05 | 2.47E-01 | 2.20E-05 | 1.07E-02 | 1.85E-06 |
| 593124 | 1.21E+01 | 7.06E-05 | 2.98E+00 | 6.57E-05 | 2.44E-01 | 2.19E-05 | 1.05E-02 | 1.84E-06 |
| 593125 | 1.15E+01 | 6.93E-05 | 2.84E+00 | 6.45E-05 | 2.37E-01 | 2.16E-05 | 1.01E-02 | 1.82E-06 |
| 593126 | 1.05E+01 | 6.66E-05 | 2.61E+00 | 6.22E-05 | 2.26E-01 | 2.11E-05 | 9.49E-03 | 1.78E-06 |
| 593127 | 9.14E+00 | 6.31E-05 | 2.29E+00 | 5.93E-05 | 2.11E-01 | 2.04E-05 | 8.67E-03 | 1.73E-06 |
| 593128 | 7.64E+00 | 5.90E-05 | 1.94E+00 | 5.58E-05 | 1.95E-01 | 1.95E-05 | 7.74E-03 | 1.66E-06 |
| 593129 | 6.08E+00 | 5.49E-05 | 1.58E+00 | 5.23E-05 | 1.77E-01 | 1.87E-05 | 6.78E-03 | 1.60E-06 |
| 593130 | 4.67E+00 | 5.09E-05 | 1.25E+00 | 4.89E-05 | 1.62E-01 | 1.79E-05 | 5.90E-03 | 1.54E-06 |
| 593131 | 2.01E-01 | 3.82E-05 | 1.98E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593132 | 1.99E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593133 | 1.97E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 593142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 593146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594113 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594114 | 1.97E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594115 | 4.40E+01 | 1.07E-04 | 4.40E+01 | 1.07E-04 | 3.74E+00 | 2.83E-05 | 8.49E-01 | 3.11E-06 |
| 594116 | 4.47E+00 | 1.00E+00 | 1.20E+00 | 1.00E+00 | 1.59E-01 | 2.19E-01 | 5.78E-03 | 1.43E-02 |
| 594117 | 5.75E+00 | 5.36E-05 | 1.50E+00 | 5.12E-05 | 1.74E-01 | 1.84E-05 | 6.57E-03 | 1.58E-06 |
| 594118 | 7.14E+00 | 5.74E-05 | 1.82E+00 | 5.44E-05 | 1.89E-01 | 1.92E-05 | 7.43E-03 | 1.64E-06 |
| 594119 | 8.52E+00 | 6.12E-05 | 2.15E+00 | 5.77E-05 | 2.04E-01 | 2.00E-05 | 8.29E-03 | 1.70E-06 |
| 594120 | 9.86E+00 | 6.47E-05 | 2.46E+00 | 6.06E-05 | 2.19E-01 | 2.07E-05 | 9.12E-03 | 1.75E-06 |
| 594121 | 1.11E+01 | 6.75E-05 | 2.75E+00 | 6.29E-05 | 2.33E-01 | 2.12E-05 | 9.87E-03 | 1.79E-06 |
| 594122 | 1.19E+01 | 6.94E-05 | 2.94E+00 | 6.46E-05 | 2.42E-01 | 2.16E-05 | 1.04E-02 | 1.82E-06 |
| 594123 | 1.21E+01 | 6.99E-05 | 2.98E+00 | 6.51E-05 | 2.44E-01 | 2.18E-05 | 1.05E-02 | 1.83E-06 |
| 594124 | 1.17E+01 | 6.96E-05 | 2.89E+00 | 6.48E-05 | 2.39E-01 | 2.17E-05 | 1.03E-02 | 1.83E-06 |
| 594125 | 1.10E+01 | 6.80E-05 | 2.73E+00 | 6.34E-05 | 2.32E-01 | 2.14E-05 | 9.84E-03 | 1.80E-06 |
| 594126 | 1.01E+01 | 6.54E-05 | 2.51E+00 | 6.12E-05 | 2.21E-01 | 2.08E-05 | 9.25E-03 | 1.76E-06 |
| 594127 | 8.75E+00 | 6.21E-05 | 2.20E+00 | 5.84E-05 | 2.07E-01 | 2.01E-05 | 8.43E-03 | 1.71E-06 |
| 594128 | 7.30E+00 | 5.81E-05 | 1.86E+00 | 5.51E-05 | 1.91E-01 | 1.93E-05 | 7.53E-03 | 1.65E-06 |
| 594129 | 5.86E+00 | 5.41E-05 | 1.53E+00 | 5.17E-05 | 1.75E-01 | 1.85E-05 | 6.64E-03 | 1.59E-06 |
| 594130 | 8.86E+00 | 6.27E-05 | 2.23E+00 | 5.89E-05 | 2.08E-01 | 2.03E-05 | 8.50E-03 | 1.72E-06 |
| 594131 | 2.02E-01 | 3.82E-05 | 1.98E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594132 | 1.99E-01 | 3.82E-05 | 1.97E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594133 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 594146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 595112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595113 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595114 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595115 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595116 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595117 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595118 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595119 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595120 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595121 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595122 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595123 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595124 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595125 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595126 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595127 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595128 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595129 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595130 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595131 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595132 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595133 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 595146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596113 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596114 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596115 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596116 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596117 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596118 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596119 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596120 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 596121 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596122 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596123 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596124 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596125 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596126 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596127 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596128 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596129 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596130 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596131 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596132 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596133 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 596146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597113 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597114 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597115 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597116 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597117 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597118 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597119 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597120 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597121 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597122 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597123 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597124 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597125 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597126 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597127 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597128 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597129 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 597130 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597131 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597132 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597133 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 597146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598113 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598114 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598115 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598116 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598117 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598118 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598119 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598120 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598121 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598122 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598123 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598124 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598125 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598126 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598127 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598128 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598129 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598130 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598131 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598132 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598133 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 598139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 598146 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599108 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599109 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599110 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599111 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599112 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599113 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599114 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599115 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599116 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599117 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599118 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599119 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599120 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599121 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599122 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599123 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599124 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599125 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599126 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599127 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599128 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599129 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599130 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599131 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599132 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599133 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599134 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599135 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599136 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599137 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599138 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599139 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599140 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599141 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599142 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599143 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599144 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599145 | 1.96E-01 | 3.82E-05 | 1.96E-01 | 3.82E-05 | 1.12E-01 | 1.53E-05 | 3.13E-03 | 1.34E-06 |
| 599146 | 3.93E-01 | 7.65E-05 | 3.93E-01 | 7.64E-05 | 2.23E-01 | 3.05E-05 | 6.25E-03 | 2.70E-06 |
| 600057 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 600067 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600077 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600087 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600097 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600107 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600117 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600127 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600137 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600147 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600157 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600167 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600177 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600187 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600197 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 600207 | 2.84E-03 | 3.01E-07 | 2.84E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610057 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610067 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610077 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610087 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610097 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610107 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610117 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610127 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610137 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610147 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610157 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610167 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610177 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610187 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610197 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 610207 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620057 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620067 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620077 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620087 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620097 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620107 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620117 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620127 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620137 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620147 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620157 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620167 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620177 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620187 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620197 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 620207 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630057 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |

*Table B5-3. Statistical Increase in Individual Cancer Risk at T40 (year 2029). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 630067 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630077 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630087 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630097 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630107 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630117 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630127 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630137 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630147 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630157 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630167 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630177 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630187 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630197 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 630207 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640057 | 5.82E-03 | 6.02E-07 | 5.82E-03 | 6.02E-07 | 3.75E-03 | 2.43E-07 | 1.05E-04 | 2.02E-08 |
| 640067 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640077 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640087 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640097 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640107 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640117 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640127 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640137 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640147 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640157 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640167 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640177 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640187 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640197 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |
| 640207 | 2.91E-03 | 3.01E-07 | 2.91E-03 | 3.01E-07 | 1.88E-03 | 1.22E-07 | 5.26E-05 | 1.01E-08 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 490057 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490067 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490077 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490087 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490097 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490107 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490117 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490127 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490137 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490147 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490157 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 490167 | 0.00E+00 | 1.67E-12 | 0.00E+00 | 1.66E-12 | 0.00E+00 | 1.51E-13 | 0.00E+00 | 1.42E-14 |
| 490177 | 0.00E+00 | 9.29E-16 | 0.00E+00 | 6.69E-16 | 0.00E+00 | 1.82E-16 | 0.00E+00 | 9.53E-18 |
| 500057 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500067 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500077 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500087 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500097 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500107 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500117 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500127 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500137 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500147 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500157 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 500167 | 1.49E-04 | 1.61E-08 | 1.49E-04 | 1.61E-08 | 1.00E-04 | 6.53E-09 | 2.80E-06 | 5.45E-10 |
| 500177 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 500187 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 500197 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 500207 | 1.47E-04 | 1.51E-08 | 1.47E-04 | 1.51E-08 | 9.93E-05 | 6.19E-09 | 2.78E-06 | 5.14E-10 |
| 510057 | 1.51E-04 | 1.61E-08 | 1.51E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510067 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510077 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510087 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510097 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510107 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510117 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510127 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510137 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510147 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510157 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510167 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510177 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510187 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510197 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 510207 | 1.50E-04 | 1.61E-08 | 1.50E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520057 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520067 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520077 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 520087 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520097 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520107 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520117 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520127 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520137 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520147 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520157 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520167 | 1.51E-04 | 1.61E-08 | 1.51E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520177 | 1.51E-04 | 1.61E-08 | 1.51E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520187 | 1.51E-04 | 1.61E-08 | 1.51E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520197 | 1.51E-04 | 1.61E-08 | 1.51E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 520207 | 1.51E-04 | 1.61E-08 | 1.51E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530057 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530067 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530077 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530087 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530097 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530107 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530117 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530127 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530137 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530147 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530157 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530167 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530177 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530187 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530197 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 530207 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 540057 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540067 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540077 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540087 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540097 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540107 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540117 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540127 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540137 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540147 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 540157 | 4.32E-04 | 2.05E-08 | 4.32E-04 | 2.05E-08 | 2.90E-04 | 8.53E-09 | 8.12E-06 | 6.29E-10 |
| 540167 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 540177 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 540187 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 540197 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 540207 | 1.52E-04 | 1.61E-08 | 1.52E-04 | 1.61E-08 | 1.01E-04 | 6.53E-09 | 2.82E-06 | 5.45E-10 |
| 550057 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550067 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550077 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 550087 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550097 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550107 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550117 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550127 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550137 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550147 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550157 | 4.54E-04 | 7.31E-08 | 4.54E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 550167 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.91E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 550177 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.91E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 550187 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 550197 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 550207 | 4.49E-04 | 6.91E-08 | 4.49E-04 | 6.90E-08 | 2.90E-04 | 2.80E-08 | 8.12E-06 | 2.41E-09 |
| 560057 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560067 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560077 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560087 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560097 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560107 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560117 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560157 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560167 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560177 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560187 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560197 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 560207 | 4.55E-04 | 7.31E-08 | 4.55E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 561128 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561129 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561130 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561131 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561132 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561133 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561134 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561135 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561136 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561137 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561138 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561139 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561140 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561141 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561142 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561143 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561144 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561145 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561146 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561147 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561148 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561149 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089): (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 561150 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561151 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561152 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561153 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561154 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561155 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 561156 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 562128 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 562129 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 562130 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 562131 | 4.13E-03 | 1.25E-06 | 4.13E-03 | 1.25E-06 | 2.38E-03 | 5.00E-07 | 6.65E-05 | 4.47E-08 |
| 562132 | 4.13E-03 | 6.34E-06 | 4.13E-03 | 6.34E-06 | 2.38E-03 | 2.54E-06 | 6.65E-05 | 2.33E-07 |
| 562133 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562134 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562135 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562136 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562137 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562138 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562139 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562140 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562141 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562142 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562143 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562144 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562145 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562146 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562147 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562148 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562149 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562150 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562151 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562152 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562153 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562154 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562155 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 562156 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 563128 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 563129 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 563130 | 1.46E-02 | 6.50E-06 | 1.46E-02 | 6.50E-06 | 9.28E-03 | 2.62E-06 | 2.59E-04 | 2.36E-07 |
| 563131 | 1.46E-02 | 6.52E-06 | 1.46E-02 | 6.52E-06 | 9.28E-03 | 2.63E-06 | 2.59E-04 | 2.36E-07 |
| 563132 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563133 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563134 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563135 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563136 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563137 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563138 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563139 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 563140 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563141 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563142 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563143 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563144 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563145 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563146 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563147 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563148 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563149 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563150 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563151 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563152 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563153 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563154 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563155 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 563156 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564128 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564129 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564130 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564131 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564132 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564133 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564134 | 1.79E-02 | 6.52E-06 | 1.79E-02 | 6.52E-06 | 9.29E-03 | 2.63E-06 | 2.60E-04 | 2.36E-07 |
| 564135 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564136 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564137 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564138 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564139 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564140 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564141 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564142 | 1.79E-02 | 6.59E-06 | 1.79E-02 | 6.59E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564143 | 1.79E-02 | 1.59E-03 | 1.79E-02 | 1.59E-03 | 9.29E-03 | 1.67E-04 | 2.61E-04 | 1.04E-05 |
| 564144 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.30E-03 | 2.65E-06 | 2.61E-04 | 2.39E-07 |
| 564145 | 1.80E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.30E-03 | 2.65E-06 | 2.61E-04 | 2.39E-07 |
| 564146 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564147 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564148 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564149 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564150 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564151 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564152 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564153 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564154 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564155 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 564156 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 565128 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 565129 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 565130 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.29E-03 | 2.65E-06 | 2.60E-04 | 2.39E-07 |
| 565131 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.30E-03 | 2.65E-06 | 2.61E-04 | 2.39E-07 |
| 565132 | 1.79E-02 | 6.60E-06 | 1.79E-02 | 6.60E-06 | 9.32E-03 | 2.65E-06 | 2.61E-04 | 2.39E-07 |
| 565133 | 1.79E-02 | 1.08E-01 | 1.79E-02 | 1.08E-01 | 9.32E-03 | 2.71E-02 | 2.61E-04 | 1.76E-03 |
| 565134 | 6.84E-02 | 5.52E-05 | 6.84E-02 | 5.52E-05 | 4.28E-02 | 1.58E-05 | 1.20E-03 | 1.38E-06 |
| 565135 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565136 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565137 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565138 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565139 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565140 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565141 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565142 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565143 | 6.87E-02 | 1.39E-03 | 6.85E-02 | 1.39E-03 | 4.28E-02 | 1.54E-04 | 1.20E-03 | 9.99E-06 |
| 565144 | 9.17E-02 | 5.68E-03 | 9.16E-02 | 5.68E-03 | 4.51E-02 | 7.22E-04 | 1.64E-03 | 4.71E-05 |
| 565145 | 6.88E-02 | 4.23E-02 | 6.86E-02 | 4.23E-02 | 4.28E-02 | 5.23E-03 | 1.20E-03 | 3.33E-04 |
| 565146 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565147 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565148 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565149 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565150 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565151 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565152 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565153 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565154 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565155 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 565156 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566128 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566129 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566130 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566131 | 6.84E-02 | 3.40E-05 | 6.84E-02 | 3.40E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566132 | 6.84E-02 | 3.41E-05 | 6.84E-02 | 3.41E-05 | 4.28E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566133 | 9.21E-02 | 6.39E-01 | 9.21E-02 | 6.39E-01 | 4.29E-02 | 1.73E-01 | 1.20E-03 | 1.12E-02 |
| 566134 | 9.22E-02 | 1.00E+00 | 9.22E-02 | 1.00E+00 | 4.29E-02 | 1.00E+00 | 1.20E-03 | 1.12E-01 |
| 566135 | 2.98E+00 | 1.00E+00 | 2.98E+00 | 1.00E+00 | 4.51E-01 | 1.00E+00 | 6.20E-02 | 8.26E-01 |
| 566136 | 1.03E+01 | 1.00E+00 | 1.03E+01 | 1.00E+00 | 1.95E+00 | 1.00E+00 | 2.25E-01 | 1.00E+00 |
| 566137 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566138 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566139 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566140 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566141 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566142 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566143 | 9.36E-02 | 3.45E-05 | 9.29E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 566144 | 9.35E-02 | 3.46E-05 | 9.28E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 566145 | 1.05E+01 | 3.47E-05 | 2.53E+00 | 3.46E-05 | 1.59E-01 | 1.38E-05 | 7.68E-03 | 1.25E-06 |
| 566146 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566147 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566148 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 566149 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566150 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566151 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566152 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566153 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566154 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566155 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 566156 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567128 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567129 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567130 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567131 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567132 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567133 | 1.17E-01 | 1.39E-01 | 1.17E-01 | 1.39E-01 | 6.15E-02 | 3.37E-02 | 1.77E-03 | 2.18E-03 |
| 567134 | 9.21E-02 | 1.00E+00 | 9.21E-02 | 1.00E+00 | 4.29E-02 | 3.58E-01 | 1.20E-03 | 2.33E-02 |
| 567135 | 2.16E+02 | 4.81E-03 | 2.15E+02 | 4.81E-03 | 1.60E+02 | 1.95E-03 | 4.87E+00 | 9.84E-05 |
| 567136 | 4.08E+00 | 1.00E+00 | 2.26E+00 | 1.00E+00 | 5.63E-01 | 5.03E-01 | 3.32E-02 | 3.25E-02 |
| 567137 | 9.21E-02 | 9.47E-01 | 9.21E-02 | 9.47E-01 | 4.29E-02 | 2.30E-01 | 1.20E-03 | 1.49E-02 |
| 567138 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567139 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567140 | 9.52E-02 | 3.41E-05 | 9.37E-02 | 3.41E-05 | 4.33E-02 | 1.37E-05 | 1.23E-03 | 1.24E-06 |
| 567141 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567142 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567143 | 8.26E+00 | 3.47E-05 | 2.01E+00 | 3.46E-05 | 1.34E-01 | 1.38E-05 | 6.31E-03 | 1.25E-06 |
| 567144 | 1.07E+01 | 3.47E-05 | 2.57E+00 | 3.46E-05 | 1.60E-01 | 1.38E-05 | 7.80E-03 | 1.25E-06 |
| 567145 | 1.33E+01 | 3.47E-05 | 3.17E+00 | 3.46E-05 | 1.89E-01 | 1.38E-05 | 9.37E-03 | 1.25E-06 |
| 567146 | 1.58E+01 | 3.49E-05 | 3.76E+00 | 3.48E-05 | 2.16E-01 | 1.39E-05 | 1.09E-02 | 1.26E-06 |
| 567147 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567148 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567149 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567150 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567151 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567152 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567153 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567154 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567155 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 567156 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568128 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568129 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568130 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568131 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568132 | 1.15E-01 | 3.98E-05 | 1.15E-01 | 3.98E-05 | 5.97E-02 | 1.71E-05 | 1.71E-03 | 1.39E-06 |
| 568133 | 7.73E-01 | 4.52E-02 | 6.84E-01 | 3.82E-02 | 2.68E-01 | 1.01E-02 | 1.07E-02 | 7.22E-04 |
| 568134 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568135 | 1.96E+02 | 4.41E-03 | 1.95E+02 | 4.39E-03 | 1.45E+02 | 1.78E-03 | 4.42E+00 | 8.98E-05 |
| 568136 | 9.67E+01 | 1.67E-03 | 8.53E+01 | 1.67E-03 | 5.76E+01 | 6.78E-04 | 1.83E+00 | 3.46E-05 |
| 568137 | 1.61E+01 | 3.41E-05 | 8.31E+00 | 3.41E-05 | 2.12E+00 | 1.37E-05 | 1.17E-01 | 1.24E-06 |
| 568138 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 568139 | 1.06E-01 | 3.43E-05 | 9.90E-02 | 3.43E-05 | 4.46E-02 | 1.38E-05 | 1.30E-03 | 1.25E-06 |
| 568140 | 3.14E+00 | 3.48E-05 | 8.13E-01 | 3.47E-05 | 7.94E-02 | 1.39E-05 | 3.24E-03 | 1.25E-06 |
| 568141 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568142 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568143 | 1.01E+01 | 3.51E-05 | 2.45E+00 | 3.50E-05 | 1.56E-01 | 1.39E-05 | 7.55E-03 | 1.26E-06 |
| 568144 | 1.30E+01 | 3.50E-05 | 3.12E+00 | 3.49E-05 | 1.87E-01 | 1.39E-05 | 9.24E-03 | 1.26E-06 |
| 568145 | 1.58E+01 | 3.49E-05 | 3.76E+00 | 3.48E-05 | 2.16E-01 | 1.39E-05 | 1.09E-02 | 1.25E-06 |
| 568146 | 1.84E+01 | 2.98E-04 | 4.38E+00 | 2.98E-04 | 2.46E-01 | 4.02E-05 | 1.26E-02 | 2.95E-06 |
| 568147 | 2.07E+01 | 3.52E-05 | 4.93E+00 | 3.50E-05 | 2.72E-01 | 1.39E-05 | 1.40E-02 | 1.26E-06 |
| 568148 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568149 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568150 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568151 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568152 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568153 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568154 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568155 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 568156 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569128 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569129 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569130 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569131 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569132 | 1.16E-01 | 4.00E-05 | 1.16E-01 | 4.00E-05 | 6.01E-02 | 1.72E-05 | 1.73E-03 | 1.39E-06 |
| 569133 | 2.85E+00 | 1.71E-01 | 2.46E+00 | 1.48E-01 | 8.66E-01 | 4.29E-02 | 3.77E-02 | 3.16E-03 |
| 569134 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569135 | 5.60E+01 | 1.46E-03 | 5.58E+01 | 1.36E-03 | 4.13E+01 | 5.29E-04 | 1.26E+00 | 2.75E-05 |
| 569136 | 7.25E+01 | 1.19E-03 | 6.25E+01 | 1.19E-03 | 4.12E+01 | 4.84E-04 | 1.33E+00 | 2.48E-05 |
| 569137 | 1.83E+01 | 3.98E-05 | 9.59E+00 | 3.98E-05 | 2.58E+00 | 1.60E-05 | 1.38E-01 | 1.36E-06 |
| 569138 | 1.01E+00 | 4.00E-05 | 3.26E-01 | 3.91E-05 | 7.17E-02 | 1.51E-05 | 2.34E-03 | 1.33E-06 |
| 569139 | 2.17E+00 | 3.92E-05 | 6.08E-01 | 3.83E-05 | 7.91E-02 | 1.48E-05 | 3.21E-03 | 1.32E-06 |
| 569140 | 9.21E-02 | 3.69E-04 | 9.21E-02 | 3.69E-04 | 4.29E-02 | 4.69E-05 | 1.20E-03 | 3.40E-06 |
| 569141 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569142 | 8.81E+00 | 3.66E-05 | 2.15E+00 | 3.62E-05 | 1.48E-01 | 1.42E-05 | 7.04E-03 | 1.28E-06 |
| 569143 | 1.17E+01 | 3.66E-05 | 2.83E+00 | 3.62E-05 | 1.76E-01 | 1.42E-05 | 8.61E-03 | 1.28E-06 |
| 569144 | 1.47E+01 | 3.57E-05 | 3.52E+00 | 3.54E-05 | 2.07E-01 | 1.40E-05 | 1.03E-02 | 1.27E-06 |
| 569145 | 1.74E+01 | 3.52E-05 | 4.13E+00 | 3.50E-05 | 2.34E-01 | 1.39E-05 | 1.19E-02 | 1.26E-06 |
| 569146 | 2.26E+01 | 8.34E-03 | 7.02E+00 | 8.34E-03 | 5.88E-01 | 1.06E-03 | 6.04E-02 | 6.77E-05 |
| 569147 | 2.29E+01 | 1.31E-01 | 5.42E+00 | 1.31E-01 | 2.95E-01 | 1.75E-02 | 1.53E-02 | 1.11E-03 |
| 569148 | 2.45E+01 | 3.54E-05 | 5.80E+00 | 3.52E-05 | 3.13E-01 | 1.40E-05 | 1.63E-02 | 1.26E-06 |
| 569149 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569150 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569151 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569152 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569153 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569154 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569155 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 569156 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 570057 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 570067 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 570077 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 570087 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 570097 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 570107 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 570117 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 570128 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 570129 | 2.00E+02 | 3.41E-05 | 4.70E+01 | 3.41E-05 | 2.26E+00 | 1.37E-05 | 1.25E-01 | 1.24E-06 |
| 570130 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 570131 | 9.21E-02 | 3.41E-05 | 9.21E-02 | 3.41E-05 | 4.29E-02 | 1.37E-05 | 1.20E-03 | 1.24E-06 |
| 570132 | 1.04E-01 | 3.71E-05 | 1.04E-01 | 3.71E-05 | 5.17E-02 | 1.55E-05 | 1.47E-03 | 1.32E-06 |
| 570133 | 2.13E+00 | 1.33E-01 | 1.84E+00 | 1.14E-01 | 6.46E-01 | 3.22E-02 | 2.81E-02 | 2.34E-03 |
| 570134 | 7.31E-01 | 4.62E-02 | 6.41E-01 | 3.91E-02 | 2.32E-01 | 1.04E-02 | 9.61E-03 | 7.38E-04 |
| 570135 | 1.24E+01 | 4.77E-04 | 1.23E+01 | 3.85E-04 | 9.15E+00 | 1.36E-04 | 2.79E-01 | 7.78E-06 |
| 570136 | 3.06E+01 | 6.53E-04 | 2.52E+01 | 5.77E-04 | 1.60E+01 | 2.13E-04 | 5.23E-01 | 1.17E-05 |
| 570137 | 1.48E+01 | 1.52E-04 | 8.75E+00 | 1.41E-04 | 3.42E+00 | 4.92E-05 | 1.44E-01 | 3.29E-06 |
| 570138 | 5.17E+00 | 9.45E-05 | 2.61E+00 | 8.52E-05 | 8.08E-01 | 2.80E-05 | 3.71E-02 | 2.19E-06 |
| 570139 | 3.47E+00 | 7.08E-05 | 1.23E+00 | 6.46E-05 | 2.47E-01 | 2.17E-05 | 1.17E-02 | 1.80E-06 |
| 570140 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570141 | 6.85E+00 | 4.64E-05 | 1.73E+00 | 4.44E-05 | 1.45E-01 | 1.64E-05 | 6.83E-03 | 1.43E-06 |
| 570142 | 9.33E+00 | 2.46E-03 | 2.31E+00 | 2.06E-03 | 1.70E-01 | 5.35E-04 | 8.07E-03 | 3.80E-05 |
| 570143 | 1.23E+01 | 3.99E-05 | 2.96E+00 | 3.90E-05 | 1.82E-01 | 1.50E-05 | 8.97E-03 | 1.34E-06 |
| 570144 | 1.53E+01 | 3.75E-05 | 3.66E+00 | 3.70E-05 | 2.13E-01 | 1.44E-05 | 1.07E-02 | 1.30E-06 |
| 570145 | 1.82E+01 | 3.60E-05 | 4.34E+00 | 3.58E-05 | 2.44E-01 | 1.41E-05 | 1.24E-02 | 1.28E-06 |
| 570146 | 2.10E+01 | 3.59E-05 | 4.98E+00 | 3.57E-05 | 2.74E-01 | 1.41E-05 | 1.41E-02 | 1.28E-06 |
| 570147 | 2.32E+01 | 3.59E-05 | 5.51E+00 | 3.57E-05 | 2.99E-01 | 1.41E-05 | 1.55E-02 | 1.27E-06 |
| 570148 | 2.51E+01 | 3.59E-05 | 5.94E+00 | 3.57E-05 | 3.20E-01 | 1.41E-05 | 1.67E-02 | 1.28E-06 |
| 570149 | 2.66E+01 | 3.59E-05 | 6.29E+00 | 3.57E-05 | 3.36E-01 | 1.41E-05 | 1.76E-02 | 1.28E-06 |
| 570150 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570151 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570152 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570153 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570154 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570155 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570156 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 570157 | 4.62E-04 | 7.36E-08 | 4.62E-04 | 7.35E-08 | 2.93E-04 | 2.94E-08 | 8.21E-06 | 2.54E-09 |
| 570167 | 4.62E-04 | 7.33E-08 | 4.62E-04 | 7.32E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 570177 | 4.62E-04 | 7.32E-08 | 4.62E-04 | 7.32E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 570187 | 4.62E-04 | 7.32E-08 | 4.62E-04 | 7.32E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 570197 | 4.62E-04 | 7.32E-08 | 4.62E-04 | 7.32E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 570207 | 4.62E-04 | 7.31E-08 | 4.62E-04 | 7.31E-08 | 2.93E-04 | 2.93E-08 | 8.21E-06 | 2.54E-09 |
| 571128 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 571129 | 2.18E+03 | 3.45E-05 | 5.10E+02 | 3.45E-05 | 2.41E+01 | 1.38E-05 | 1.35E+00 | 1.25E-06 |
| 571130 | 2.36E+03 | 3.45E-05 | 5.54E+02 | 3.45E-05 | 2.62E+01 | 1.38E-05 | 1.47E+00 | 1.25E-06 |
| 571131 | 9.21E-02 | 3.45E-05 | 9.21E-02 | 3.45E-05 | 4.29E-02 | 1.38E-05 | 1.20E-03 | 1.25E-06 |
| 571132 | 9.43E-02 | 3.50E-05 | 9.43E-02 | 3.50E-05 | 4.45E-02 | 1.42E-05 | 1.25E-03 | 1.27E-06 |
| 571133 | 1.10E+00 | 7.07E-02 | 9.57E-01 | 6.01E-02 | 3.40E-01 | 1.61E-02 | 1.45E-02 | 1.15E-03 |
| 571134 | 7.46E-01 | 4.71E-02 | 6.53E-01 | 3.99E-02 | 2.35E-01 | 1.06E-02 | 9.80E-03 | 7.54E-04 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 571135 | 2.73E+00 | 1.05E-02 | 2.70E+00 | 8.91E-03 | 1.93E+00 | 2.30E-03 | 5.94E-02 | 1.62E-04 |
| 571136 | 1.06E+01 | 8.84E-04 | 7.95E+00 | 7.31E-04 | 4.50E+00 | 2.05E-04 | 1.56E-01 | 1.39E-05 |
| 571137 | 9.21E+00 | 5.23E-04 | 5.70E+00 | 4.47E-04 | 2.47E+00 | 1.26E-04 | 9.75E-02 | 8.78E-06 |
| 571138 | 5.37E+00 | 3.00E-04 | 2.82E+00 | 2.56E-04 | 9.75E-01 | 7.25E-05 | 4.21E-02 | 5.28E-06 |
| 571139 | 4.14E+00 | 1.62E-04 | 1.61E+00 | 1.41E-04 | 3.85E-01 | 4.14E-05 | 1.78E-02 | 3.18E-06 |
| 571140 | 5.73E+00 | 7.76E-03 | 2.22E+00 | 6.60E-03 | 4.04E-01 | 1.72E-03 | 1.65E-02 | 1.20E-04 |
| 571141 | 7.57E+00 | 9.24E-03 | 2.57E+00 | 7.75E-03 | 3.67E-01 | 2.00E-03 | 1.43E-02 | 1.41E-04 |
| 571142 | 1.01E+01 | 8.13E-03 | 2.93E+00 | 6.83E-03 | 3.19E-01 | 1.76E-03 | 1.41E-02 | 1.24E-04 |
| 571143 | 1.23E+01 | 4.14E-03 | 3.05E+00 | 3.48E-03 | 2.14E-01 | 8.98E-04 | 1.03E-02 | 6.36E-05 |
| 571144 | 1.52E+01 | 1.21E-03 | 3.65E+00 | 1.01E-03 | 2.16E-01 | 2.66E-04 | 1.08E-02 | 1.90E-05 |
| 571145 | 1.80E+01 | 3.19E-04 | 4.32E+00 | 2.73E-04 | 2.49E-01 | 7.51E-05 | 1.27E-02 | 5.58E-06 |
| 571146 | 2.06E+01 | 3.76E-05 | 4.91E+00 | 3.71E-05 | 2.74E-01 | 1.45E-05 | 1.41E-02 | 1.30E-06 |
| 571147 | 2.27E+01 | 3.70E-05 | 5.40E+00 | 3.66E-05 | 2.97E-01 | 1.43E-05 | 1.54E-02 | 1.29E-06 |
| 571148 | 2.45E+01 | 1.00E+00 | 5.81E+00 | 1.00E+00 | 3.14E-01 | 1.00E+00 | 1.64E-02 | 1.00E+00 |
| 571149 | 2.58E+01 | 1.00E+00 | 6.11E+00 | 1.00E+00 | 3.28E-01 | 1.00E+00 | 1.71E-02 | 1.00E+00 |
| 571150 | 2.52E+01 | 3.60E-05 | 5.98E+00 | 3.57E-05 | 3.22E-01 | 1.41E-05 | 1.68E-02 | 1.28E-06 |
| 571151 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 571152 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 571153 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 571154 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 571155 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 571156 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 572128 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 572129 | 5.99E+03 | 3.45E-05 | 1.40E+03 | 3.45E-05 | 6.64E+01 | 1.38E-05 | 3.72E+00 | 1.25E-06 |
| 572130 | 6.99E+03 | 3.45E-05 | 1.64E+03 | 3.45E-05 | 7.75E+01 | 1.38E-05 | 4.33E+00 | 1.25E-06 |
| 572131 | 4.63E+03 | 3.45E-05 | 1.09E+03 | 3.45E-05 | 5.14E+01 | 1.38E-05 | 2.87E+00 | 1.25E-06 |
| 572132 | 9.26E-02 | 3.46E-05 | 9.26E-02 | 3.46E-05 | 4.32E-02 | 1.39E-05 | 1.21E-03 | 1.26E-06 |
| 572133 | 3.05E-01 | 1.57E-02 | 2.75E-01 | 1.33E-02 | 1.06E-01 | 3.46E-03 | 3.99E-03 | 2.45E-04 |
| 572134 | 4.51E-01 | 2.64E-02 | 4.01E-01 | 2.24E-02 | 1.49E-01 | 5.89E-03 | 5.93E-03 | 4.15E-04 |
| 572135 | 2.99E-01 | 1.36E-02 | 2.54E-01 | 1.14E-02 | 9.64E-02 | 2.97E-03 | 3.60E-03 | 2.10E-04 |
| 572136 | 3.36E-01 | 2.95E-03 | 3.02E-01 | 2.47E-03 | 1.79E-01 | 6.37E-04 | 5.52E-03 | 4.52E-05 |
| 572137 | 1.87E+00 | 1.29E-03 | 1.10E+00 | 1.08E-03 | 4.16E-01 | 2.83E-04 | 1.74E-02 | 2.02E-05 |
| 572138 | 2.65E+00 | 5.72E-04 | 1.24E+00 | 4.84E-04 | 3.75E-01 | 1.29E-04 | 1.66E-02 | 9.40E-06 |
| 572139 | 6.35E+01 | 1.32E-02 | 6.13E+01 | 1.11E-02 | 1.47E+01 | 2.88E-03 | 4.54E-01 | 2.03E-04 |
| 572140 | 2.68E+01 | 1.95E-02 | 2.24E+01 | 1.64E-02 | 5.23E+00 | 4.29E-03 | 1.77E-01 | 3.02E-04 |
| 572141 | 1.12E+01 | 1.48E-02 | 6.11E+00 | 1.25E-02 | 1.22E+00 | 3.24E-03 | 4.50E-02 | 2.29E-04 |
| 572142 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 572143 | 1.16E+01 | 5.23E-03 | 2.93E+00 | 4.39E-03 | 2.22E-01 | 1.14E-03 | 1.05E-02 | 8.02E-05 |
| 572144 | 1.40E+01 | 2.18E-03 | 3.40E+00 | 1.83E-03 | 2.12E-01 | 4.75E-04 | 1.05E-02 | 3.38E-05 |
| 572145 | 1.67E+01 | 7.82E-04 | 4.03E+00 | 6.61E-04 | 2.39E-01 | 1.75E-04 | 1.22E-02 | 1.26E-05 |
| 572146 | 1.90E+01 | 2.45E-04 | 4.57E+00 | 2.11E-04 | 2.67E-01 | 5.92E-05 | 1.37E-02 | 4.46E-06 |
| 572147 | 2.08E+01 | 9.61E-05 | 4.99E+00 | 8.63E-05 | 2.87E-01 | 2.71E-05 | 1.48E-02 | 2.19E-06 |
| 572148 | 2.24E+01 | 3.90E-05 | 5.35E+00 | 3.83E-05 | 2.98E-01 | 1.48E-05 | 1.55E-02 | 1.32E-06 |
| 572149 | 2.36E+01 | 3.61E-05 | 5.60E+00 | 3.59E-05 | 3.04E-01 | 1.41E-05 | 1.58E-02 | 1.28E-06 |
| 572150 | 2.34E+01 | 1.60E-03 | 5.55E+00 | 1.60E-03 | 3.02E-01 | 1.76E-04 | 1.56E-02 | 1.14E-05 |
| 572151 | 2.17E+01 | 3.59E-05 | 5.15E+00 | 3.57E-05 | 2.82E-01 | 1.41E-05 | 1.46E-02 | 1.28E-06 |
| 572152 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 572153 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 572154 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 572155 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 572156 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 573128 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 573129 | 9.32E+03 | 3.45E-05 | 2.18E+03 | 3.45E-05 | 1.03E+02 | 1.38E-05 | 5.78E+00 | 1.25E-06 |
| 573130 | 1.15E+04 | 3.45E-05 | 2.70E+03 | 3.45E-05 | 1.28E+02 | 1.38E-05 | 7.16E+00 | 1.25E-06 |
| 573131 | 8.99E+03 | 3.45E-05 | 2.11E+03 | 3.45E-05 | 9.96E+01 | 1.38E-05 | 5.57E+00 | 1.25E-06 |
| 573132 | 9.23E-02 | 3.45E-05 | 9.23E-02 | 3.45E-05 | 4.30E-02 | 1.38E-05 | 1.21E-03 | 1.25E-06 |
| 573133 | 1.23E-01 | 2.31E-03 | 1.18E-01 | 1.95E-03 | 5.20E-02 | 5.05E-04 | 1.61E-03 | 3.59E-05 |
| 573134 | 3.01E+00 | 1.00E+00 | 2.99E+00 | 1.00E+00 | 6.11E-01 | 8.50E-01 | 5.90E-02 | 5.54E-02 |
| 573135 | 2.37E-01 | 9.30E-03 | 2.03E-01 | 7.81E-03 | 7.92E-02 | 2.01E-03 | 2.82E-03 | 1.43E-04 |
| 573136 | 2.68E-01 | 1.00E+00 | 2.38E-01 | 1.00E+00 | 7.73E-02 | 1.00E+00 | 3.77E-03 | 1.28E-01 |
| 573137 | 1.20E+01 | 1.00E+00 | 1.17E+01 | 1.00E+00 | 2.32E+00 | 1.00E+00 | 2.49E-01 | 1.54E-01 |
| 573138 | 1.58E+02 | 8.12E-04 | 1.57E+02 | 6.86E-04 | 3.75E+01 | 1.81E-04 | 1.14E+00 | 1.31E-05 |
| 573139 | 3.27E+01 | 6.94E-03 | 3.12E+01 | 5.83E-03 | 7.42E+00 | 1.50E-03 | 2.28E-01 | 1.06E-04 |
| 573140 | 5.96E+00 | 8.48E-03 | 3.56E+00 | 7.12E-03 | 7.52E-01 | 1.84E-03 | 2.48E-02 | 1.30E-04 |
| 573141 | 5.31E+00 | 5.38E-03 | 1.56E+00 | 4.53E-03 | 1.83E-01 | 1.17E-03 | 7.26E-03 | 8.26E-05 |
| 573142 | 9.23E-02 | 3.66E-05 | 9.23E-02 | 3.66E-05 | 4.30E-02 | 1.45E-05 | 1.21E-03 | 1.31E-06 |
| 573143 | 9.57E+00 | 2.79E-03 | 2.42E+00 | 2.35E-03 | 1.86E-01 | 6.09E-04 | 9.03E-03 | 4.33E-05 |
| 573144 | 1.37E+01 | 1.99E-03 | 3.94E+00 | 1.68E-03 | 4.14E-01 | 4.35E-04 | 2.18E-02 | 3.10E-05 |
| 573145 | 1.45E+01 | 1.03E-03 | 3.58E+00 | 8.68E-04 | 2.44E-01 | 2.28E-04 | 1.24E-02 | 1.64E-05 |
| 573146 | 1.63E+01 | 5.32E-04 | 3.88E+00 | 4.53E-04 | 2.24E-01 | 1.21E-04 | 1.13E-02 | 8.85E-06 |
| 573147 | 1.81E+01 | 1.70E-04 | 4.32E+00 | 1.48E-04 | 2.44E-01 | 4.33E-05 | 1.25E-02 | 3.34E-06 |
| 573148 | 1.96E+01 | 5.43E-05 | 4.66E+00 | 5.14E-05 | 2.61E-01 | 1.83E-05 | 1.34E-02 | 1.58E-06 |
| 573149 | 2.07E+01 | 3.86E-05 | 4.94E+00 | 3.83E-05 | 2.74E-01 | 1.49E-05 | 1.41E-02 | 1.34E-06 |
| 573150 | 2.06E+01 | 4.15E-05 | 4.92E+00 | 4.09E-05 | 2.78E-01 | 1.55E-05 | 1.43E-02 | 1.38E-06 |
| 573151 | 1.91E+01 | 2.43E-03 | 4.58E+00 | 2.43E-03 | 2.58E-01 | 2.83E-04 | 1.35E-02 | 1.83E-05 |
| 573152 | 9.46E-02 | 8.62E-03 | 9.42E-02 | 8.62E-03 | 4.34E-02 | 9.43E-04 | 1.23E-03 | 6.13E-05 |
| 573153 | 9.26E-02 | 3.66E-05 | 9.26E-02 | 3.66E-05 | 4.30E-02 | 1.46E-05 | 1.21E-03 | 1.31E-06 |
| 573154 | 9.23E-02 | 3.66E-05 | 9.23E-02 | 3.66E-05 | 4.30E-02 | 1.45E-05 | 1.21E-03 | 1.31E-06 |
| 573155 | 9.23E-02 | 3.66E-05 | 9.23E-02 | 3.66E-05 | 4.30E-02 | 1.45E-05 | 1.21E-03 | 1.31E-06 |
| 573156 | 9.23E-02 | 3.66E-05 | 9.23E-02 | 3.66E-05 | 4.30E-02 | 1.45E-05 | 1.21E-03 | 1.31E-06 |
| 574128 | 9.23E-02 | 3.66E-05 | 9.23E-02 | 3.66E-05 | 4.30E-02 | 1.45E-05 | 1.21E-03 | 1.31E-06 |
| 574129 | 1.07E+04 | 3.66E-05 | 2.50E+03 | 3.66E-05 | 1.18E+02 | 1.45E-05 | 6.60E+00 | 1.31E-06 |
| 574130 | 1.42E+04 | 3.66E-05 | 3.33E+03 | 3.66E-05 | 1.57E+02 | 1.45E-05 | 8.81E+00 | 1.31E-06 |
| 574131 | 1.24E+04 | 3.66E-05 | 2.91E+03 | 3.66E-05 | 1.38E+02 | 1.45E-05 | 7.71E+00 | 1.31E-06 |
| 574132 | 7.60E+03 | 3.66E-05 | 1.78E+03 | 3.66E-05 | 8.43E+01 | 1.46E-05 | 4.71E+00 | 1.31E-06 |
| 574133 | 9.23E-02 | 3.66E-05 | 9.23E-02 | 3.66E-05 | 4.30E-02 | 1.46E-05 | 1.21E-03 | 1.31E-06 |
| 574134 | 1.16E-01 | 1.84E-03 | 1.13E-01 | 1.55E-03 | 5.02E-02 | 4.03E-04 | 1.53E-03 | 2.87E-05 |
| 574135 | 1.40E-01 | 3.89E-01 | 1.34E-01 | 3.88E-01 | 5.75E-02 | 1.37E-01 | 1.84E-03 | 8.83E-03 |
| 574136 | 9.12E-01 | 1.00E+00 | 6.41E-01 | 1.00E+00 | 2.30E-01 | 6.51E-01 | 1.30E-02 | 4.21E-02 |
| 574137 | 9.95E-02 | 5.27E-04 | 9.86E-02 | 4.48E-04 | 4.54E-02 | 1.21E-04 | 1.31E-03 | 8.77E-06 |
| 574138 | 9.52E-02 | 1.99E-04 | 9.49E-02 | 1.73E-04 | 4.41E-02 | 4.97E-05 | 1.25E-03 | 3.78E-06 |
| 574139 | 9.31E-02 | 5.72E-01 | 9.31E-02 | 5.72E-01 | 4.35E-02 | 1.02E-01 | 1.22E-03 | 6.59E-03 |
| 574140 | 2.24E+00 | 5.47E-05 | 5.96E-01 | 5.19E-05 | 6.74E-02 | 1.84E-05 | 2.55E-03 | 1.59E-06 |
| 574141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 574142 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 574143 | 7.44E+00 | 1.00E-03 | 1.82E+00 | 8.44E-04 | 1.29E-01 | 2.22E-04 | 5.93E-03 | 1.60E-05 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 574144 | 9.58E+00 | 1.07E-03 | 2.38E+00 | 9.02E-04 | 1.69E-01 | 2.36E-04 | 8.17E-03 | 1.70E-05 |
| 574145 | 1.25E+01 | 9.06E-04 | 3.47E+00 | 7.66E-04 | 3.31E-01 | 2.02E-04 | 1.73E-02 | 1.45E-05 |
| 574146 | 1.33E+01 | 5.24E-04 | 3.19E+00 | 4.45E-04 | 1.94E-01 | 1.19E-04 | 9.59E-03 | 8.72E-06 |
| 574147 | 1.48E+01 | 2.02E-04 | 3.53E+00 | 1.75E-04 | 2.07E-01 | 5.01E-05 | 1.04E-02 | 3.83E-06 |
| 574148 | 1.61E+01 | 9.07E-05 | 3.85E+00 | 8.21E-05 | 2.22E-01 | 2.62E-05 | 1.12E-02 | 2.14E-06 |
| 574149 | 1.72E+01 | 3.78E-05 | 4.11E+00 | 3.77E-05 | 2.34E-01 | 1.48E-05 | 1.18E-02 | 1.33E-06 |
| 574150 | 1.74E+01 | 4.18E-05 | 4.17E+00 | 4.10E-05 | 2.45E-01 | 1.56E-05 | 1.25E-02 | 1.39E-06 |
| 574151 | 1.60E+01 | 4.16E-05 | 3.86E+00 | 4.08E-05 | 2.31E-01 | 1.56E-05 | 1.16E-02 | 1.39E-06 |
| 574152 | 1.19E-01 | 7.69E-03 | 1.14E-01 | 7.69E-03 | 4.86E-02 | 8.01E-04 | 1.50E-03 | 5.23E-05 |
| 574153 | 9.98E-02 | 3.71E-05 | 9.85E-02 | 3.70E-05 | 4.48E-02 | 1.47E-05 | 1.29E-03 | 1.32E-06 |
| 574154 | 9.34E-02 | 3.66E-05 | 9.33E-02 | 3.66E-05 | 4.36E-02 | 1.46E-05 | 1.22E-03 | 1.31E-06 |
| 574155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 574156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 575128 | 3.86E+03 | 3.66E-05 | 9.05E+02 | 3.66E-05 | 4.28E+01 | 1.45E-05 | 2.39E+00 | 1.31E-06 |
| 575129 | 1.03E+04 | 3.66E-05 | 2.42E+03 | 3.66E-05 | 1.14E+02 | 1.45E-05 | 6.40E+00 | 1.31E-06 |
| 575130 | 1.45E+04 | 3.66E-05 | 3.39E+03 | 3.66E-05 | 1.61E+02 | 1.45E-05 | 8.98E+00 | 1.31E-06 |
| 575131 | 1.40E+04 | 3.66E-05 | 3.29E+03 | 3.66E-05 | 1.56E+02 | 1.45E-05 | 8.70E+00 | 1.31E-06 |
| 575132 | 9.82E+03 | 3.66E-05 | 2.30E+03 | 3.66E-05 | 1.09E+02 | 1.45E-05 | 6.09E+00 | 1.31E-06 |
| 575133 | 5.15E+03 | 3.66E-05 | 1.21E+03 | 3.66E-05 | 5.71E+01 | 1.46E-05 | 3.19E+00 | 1.31E-06 |
| 575134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.46E-05 | 1.22E-03 | 1.31E-06 |
| 575135 | 1.75E-01 | 1.00E+00 | 1.75E-01 | 1.00E+00 | 1.04E-01 | 4.53E-01 | 3.95E-03 | 2.95E-02 |
| 575136 | 2.06E-01 | 1.00E+00 | 2.06E-01 | 1.00E+00 | 1.26E-01 | 1.21E-01 | 4.95E-03 | 7.90E-03 |
| 575137 | 9.39E-02 | 2.60E-03 | 9.38E-02 | 2.59E-03 | 4.37E-02 | 1.46E-03 | 1.23E-03 | 9.46E-05 |
| 575138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 575139 | 9.31E-02 | 3.70E-05 | 9.31E-02 | 3.69E-05 | 4.35E-02 | 1.46E-05 | 1.22E-03 | 1.32E-06 |
| 575140 | 9.31E-02 | 3.93E-05 | 9.31E-02 | 3.89E-05 | 4.35E-02 | 1.51E-05 | 1.22E-03 | 1.36E-06 |
| 575141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 575142 | 9.31E-02 | 3.73E-05 | 9.31E-02 | 3.72E-05 | 4.35E-02 | 1.47E-05 | 1.22E-03 | 1.33E-06 |
| 575143 | 9.66E-02 | 2.58E-04 | 9.58E-02 | 2.22E-04 | 4.44E-02 | 6.22E-05 | 1.26E-03 | 4.67E-06 |
| 575144 | 1.18E-01 | 4.13E-04 | 1.06E-01 | 3.53E-04 | 4.65E-02 | 9.58E-05 | 1.37E-03 | 7.05E-06 |
| 575145 | 8.80E+00 | 5.65E-04 | 2.18E+00 | 4.80E-04 | 1.58E-01 | 1.29E-04 | 7.63E-03 | 9.35E-06 |
| 575146 | 1.01E+01 | 4.12E-04 | 2.45E+00 | 3.52E-04 | 1.59E-01 | 9.56E-05 | 7.67E-03 | 7.03E-06 |
| 575147 | 1.15E+01 | 1.97E-04 | 2.76E+00 | 1.71E-04 | 1.70E-01 | 4.91E-05 | 8.30E-03 | 3.75E-06 |
| 575148 | 1.25E+01 | 1.18E-04 | 2.99E+00 | 1.05E-04 | 1.81E-01 | 3.21E-05 | 8.91E-03 | 2.55E-06 |
| 575149 | 1.34E+01 | 9.52E-05 | 3.21E+00 | 8.59E-05 | 1.92E-01 | 2.72E-05 | 9.49E-03 | 2.21E-06 |
| 575150 | 1.38E+01 | 3.86E-05 | 3.31E+00 | 3.83E-05 | 1.98E-01 | 1.49E-05 | 9.85E-03 | 1.34E-06 |
| 575151 | 2.55E+01 | 4.04E-05 | 6.07E+00 | 3.98E-05 | 3.33E-01 | 1.53E-05 | 1.74E-02 | 1.37E-06 |
| 575152 | 1.44E-01 | 4.04E-05 | 1.34E-01 | 3.98E-05 | 5.36E-02 | 1.54E-05 | 1.78E-03 | 1.37E-06 |
| 575153 | 1.10E-01 | 3.78E-05 | 1.06E-01 | 3.76E-05 | 4.68E-02 | 1.48E-05 | 1.40E-03 | 1.33E-06 |
| 575154 | 9.38E-02 | 3.66E-05 | 9.37E-02 | 3.66E-05 | 4.36E-02 | 1.46E-05 | 1.23E-03 | 1.31E-06 |
| 575155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 575156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576126 | 9.99E+02 | 3.20E-15 | 2.34E+02 | 3.20E-15 | 1.11E+01 | 1.90E-15 | 6.19E-01 | 8.09E-17 |
| 576127 | 2.50E+03 | 5.88E-14 | 5.85E+02 | 5.88E-14 | 2.77E+01 | 3.49E-14 | 1.55E+00 | 1.48E-15 |
| 576128 | 5.33E+03 | 3.66E-05 | 1.25E+03 | 3.66E-05 | 5.90E+01 | 1.45E-05 | 3.30E+00 | 1.31E-06 |
| 576129 | 8.88E+03 | 3.66E-05 | 2.08E+03 | 3.66E-05 | 9.84E+01 | 1.45E-05 | 5.50E+00 | 1.31E-06 |
| 576130 | 1.31E+04 | 3.66E-05 | 3.07E+03 | 3.66E-05 | 1.45E+02 | 1.45E-05 | 8.12E+00 | 1.31E-06 |
| 576131 | 1.39E+04 | 3.66E-05 | 3.26E+03 | 3.66E-05 | 1.54E+02 | 1.45E-05 | 8.63E+00 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 576132 | 1.06E+04 | 3.66E-05 | 2.48E+03 | 3.66E-05 | 1.17E+02 | 1.45E-05 | 6.57E+00 | 1.31E-06 |
| 576133 | 5.72E+03 | 3.66E-05 | 1.34E+03 | 3.66E-05 | 6.33E+01 | 1.46E-05 | 3.54E+00 | 1.31E-06 |
| 576134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.46E-05 | 1.22E-03 | 1.31E-06 |
| 576135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576142 | 9.31E-02 | 3.69E-05 | 9.31E-02 | 3.69E-05 | 4.35E-02 | 1.46E-05 | 1.22E-03 | 1.32E-06 |
| 576143 | 9.42E-02 | 9.39E-05 | 9.38E-02 | 8.47E-05 | 4.37E-02 | 2.69E-05 | 1.23E-03 | 2.19E-06 |
| 576144 | 9.79E-02 | 1.82E-04 | 9.59E-02 | 1.58E-04 | 4.42E-02 | 4.58E-05 | 1.26E-03 | 3.52E-06 |
| 576145 | 1.43E-01 | 2.92E-04 | 1.15E-01 | 2.51E-04 | 4.77E-02 | 6.95E-05 | 1.44E-03 | 5.20E-06 |
| 576146 | 1.64E-01 | 3.25E-04 | 1.25E-01 | 2.79E-04 | 4.96E-02 | 7.67E-05 | 1.55E-03 | 5.70E-06 |
| 576147 | 2.23E-01 | 1.94E-04 | 1.77E-01 | 1.68E-04 | 6.22E-02 | 4.85E-05 | 2.26E-03 | 3.71E-06 |
| 576148 | 9.73E-02 | 1.47E-04 | 9.55E-02 | 1.29E-04 | 4.41E-02 | 3.84E-05 | 1.25E-03 | 2.99E-06 |
| 576149 | 9.56E-02 | 1.25E-04 | 9.44E-02 | 1.11E-04 | 4.39E-02 | 3.37E-05 | 1.24E-03 | 2.67E-06 |
| 576150 | 1.04E+01 | 1.20E-04 | 2.51E+00 | 1.06E-04 | 1.58E-01 | 3.25E-05 | 7.64E-03 | 2.58E-06 |
| 576151 | 9.95E-02 | 3.80E-05 | 9.82E-02 | 3.78E-05 | 4.48E-02 | 1.48E-05 | 1.29E-03 | 1.34E-06 |
| 576152 | 1.30E-01 | 3.94E-05 | 1.23E-01 | 3.89E-05 | 5.09E-02 | 1.51E-05 | 1.63E-03 | 1.36E-06 |
| 576153 | 1.04E-01 | 3.74E-05 | 1.02E-01 | 3.73E-05 | 4.56E-02 | 1.47E-05 | 1.34E-03 | 1.33E-06 |
| 576154 | 9.36E-02 | 3.66E-05 | 9.35E-02 | 3.66E-05 | 4.36E-02 | 1.46E-05 | 1.23E-03 | 1.31E-06 |
| 576155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 576156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577123 | 3.46E+02 | 0.00E+00 | 8.10E+01 | 0.00E+00 | 3.83E+00 | 0.00E+00 | 2.14E-01 | 0.00E+00 |
| 577124 | 6.22E+02 | 0.00E+00 | 1.46E+02 | 0.00E+00 | 6.89E+00 | 0.00E+00 | 3.85E-01 | 0.00E+00 |
| 577125 | 1.09E+03 | 9.33E-16 | 2.56E+02 | 9.33E-16 | 1.21E+01 | 5.54E-16 | 6.78E-01 | 2.36E-17 |
| 577126 | 1.83E+03 | 1.59E-14 | 4.29E+02 | 1.59E-14 | 2.03E+01 | 9.44E-15 | 1.14E+00 | 4.02E-16 |
| 577127 | 3.32E+03 | 1.92E-13 | 7.77E+02 | 1.92E-13 | 3.68E+01 | 1.14E-13 | 2.06E+00 | 4.86E-15 |
| 577128 | 6.27E+03 | 3.66E-05 | 1.47E+03 | 3.66E-05 | 6.95E+01 | 1.45E-05 | 3.89E+00 | 1.31E-06 |
| 577129 | 8.88E+03 | 3.66E-05 | 2.08E+03 | 3.66E-05 | 9.84E+01 | 1.45E-05 | 5.50E+00 | 1.31E-06 |
| 577130 | 1.22E+04 | 3.66E-05 | 2.85E+03 | 3.66E-05 | 1.35E+02 | 1.45E-05 | 7.53E+00 | 1.31E-06 |
| 577131 | 1.16E+04 | 3.66E-05 | 2.72E+03 | 3.66E-05 | 1.29E+02 | 1.45E-05 | 7.19E+00 | 1.31E-06 |
| 577132 | 8.55E+03 | 3.66E-05 | 2.00E+03 | 3.66E-05 | 9.47E+01 | 1.45E-05 | 5.30E+00 | 1.31E-06 |
| 577133 | 4.56E+03 | 3.66E-05 | 1.07E+03 | 3.66E-05 | 5.05E+01 | 1.45E-05 | 2.82E+00 | 1.31E-06 |
| 577134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577142 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577143 | 9.41E-02 | 7.47E-05 | 9.36E-02 | 6.86E-05 | 4.37E-02 | 2.28E-05 | 1.23E-03 | 1.90E-06 |
| 577144 | 9.52E-02 | 1.16E-04 | 9.43E-02 | 1.04E-04 | 4.38E-02 | 3.18E-05 | 1.24E-03 | 2.53E-06 |
| 577145 | 1.42E-01 | 1.75E-04 | 1.23E-01 | 1.53E-04 | 5.00E-02 | 4.44E-05 | 1.58E-03 | 3.42E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 577146 | 8.98E-01 | 2.22E-04 | 6.07E-01 | 1.93E-04 | 1.58E-01 | 5.48E-05 | 7.59E-03 | 4.15E-06 |
| 577147 | 6.65E-01 | 2.11E-04 | 4.63E-01 | 1.83E-04 | 1.26E-01 | 5.22E-05 | 5.83E-03 | 3.97E-06 |
| 577148 | 1.26E-01 | 1.75E-04 | 1.13E-01 | 1.53E-04 | 4.81E-02 | 4.45E-05 | 1.47E-03 | 3.42E-06 |
| 577149 | 9.67E-02 | 1.53E-04 | 9.50E-02 | 1.35E-04 | 4.40E-02 | 3.98E-05 | 1.24E-03 | 3.10E-06 |
| 577150 | 9.57E-02 | 1.29E-04 | 9.45E-02 | 1.14E-04 | 4.39E-02 | 3.45E-05 | 1.24E-03 | 2.72E-06 |
| 577151 | 9.93E-02 | 1.08E-04 | 9.75E-02 | 9.65E-05 | 4.46E-02 | 3.00E-05 | 1.28E-03 | 2.40E-06 |
| 577152 | 1.36E-01 | 2.87E-03 | 1.32E-01 | 2.87E-03 | 4.95E-02 | 3.42E-04 | 1.90E-03 | 2.20E-05 |
| 577153 | 9.70E-02 | 3.69E-05 | 9.62E-02 | 3.68E-05 | 4.43E-02 | 1.46E-05 | 1.26E-03 | 1.32E-06 |
| 577154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 577156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578122 | 3.57E+02 | 9.56E-19 | 8.37E+01 | 9.56E-19 | 3.96E+00 | 5.68E-19 | 2.22E-01 | 2.42E-20 |
| 578123 | 6.22E+02 | 1.66E-17 | 1.46E+02 | 1.66E-17 | 6.89E+00 | 9.87E-18 | 3.85E-01 | 4.20E-19 |
| 578124 | 1.06E+03 | 2.88E-16 | 2.48E+02 | 2.88E-16 | 1.17E+01 | 1.71E-16 | 6.57E-01 | 7.27E-18 |
| 578125 | 1.73E+03 | 4.38E-15 | 4.04E+02 | 4.38E-15 | 1.91E+01 | 2.60E-15 | 1.07E+00 | 1.11E-16 |
| 578126 | 2.56E+03 | 4.76E-14 | 5.99E+02 | 4.76E-14 | 2.84E+01 | 2.83E-14 | 1.59E+00 | 1.20E-15 |
| 578127 | 4.28E+03 | 4.49E-13 | 1.00E+03 | 4.49E-13 | 4.75E+01 | 2.67E-13 | 2.66E+00 | 1.13E-14 |
| 578128 | 6.60E+03 | 3.66E-05 | 1.55E+03 | 3.66E-05 | 7.32E+01 | 1.45E-05 | 4.09E+00 | 1.31E-06 |
| 578129 | 9.27E+03 | 3.66E-05 | 2.17E+03 | 3.66E-05 | 1.03E+02 | 1.45E-05 | 5.74E+00 | 1.31E-06 |
| 578130 | 9.82E+03 | 3.66E-05 | 2.30E+03 | 3.66E-05 | 1.09E+02 | 1.45E-05 | 6.09E+00 | 1.31E-06 |
| 578131 | 8.27E+03 | 3.66E-05 | 1.94E+03 | 3.66E-05 | 9.16E+01 | 1.45E-05 | 5.13E+00 | 1.31E-06 |
| 578132 | 5.72E+03 | 3.66E-05 | 1.34E+03 | 3.66E-05 | 6.33E+01 | 1.45E-05 | 3.54E+00 | 1.31E-06 |
| 578133 | 3.26E+03 | 3.66E-05 | 7.63E+02 | 3.66E-05 | 3.61E+01 | 1.45E-05 | 2.02E+00 | 1.31E-06 |
| 578134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578142 | 9.31E-02 | 3.67E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.46E-05 | 1.22E-03 | 1.31E-06 |
| 578143 | 9.43E-02 | 7.58E-05 | 9.37E-02 | 6.96E-05 | 4.37E-02 | 2.30E-05 | 1.23E-03 | 1.91E-06 |
| 578144 | 9.51E-02 | 1.08E-04 | 9.42E-02 | 9.69E-05 | 4.38E-02 | 3.01E-05 | 1.23E-03 | 2.40E-06 |
| 578145 | 1.04E-01 | 1.47E-04 | 9.95E-02 | 1.29E-04 | 4.50E-02 | 3.83E-05 | 1.30E-03 | 2.99E-06 |
| 578146 | 4.47E-01 | 1.91E-04 | 3.20E-01 | 1.66E-04 | 9.44E-02 | 4.78E-05 | 4.05E-03 | 3.66E-06 |
| 578147 | 1.02E+00 | 2.21E-04 | 6.89E-01 | 1.91E-04 | 1.77E-01 | 5.45E-05 | 8.64E-03 | 4.13E-06 |
| 578148 | 2.67E-01 | 1.89E-04 | 2.04E-01 | 1.65E-04 | 6.83E-02 | 4.76E-05 | 2.60E-03 | 3.65E-06 |
| 578149 | 9.85E-02 | 1.59E-04 | 9.61E-02 | 1.39E-04 | 4.43E-02 | 4.11E-05 | 1.26E-03 | 3.19E-06 |
| 578150 | 9.59E-02 | 1.33E-04 | 9.46E-02 | 1.17E-04 | 4.39E-02 | 3.54E-05 | 1.24E-03 | 2.78E-06 |
| 578151 | 9.62E-02 | 1.11E-04 | 9.50E-02 | 9.91E-05 | 4.40E-02 | 3.06E-05 | 1.25E-03 | 2.44E-06 |
| 578152 | 9.93E-02 | 4.15E-03 | 9.81E-02 | 4.15E-03 | 4.47E-02 | 5.19E-04 | 1.29E-03 | 3.35E-05 |
| 578153 | 9.41E-02 | 3.67E-05 | 9.39E-02 | 3.67E-05 | 4.37E-02 | 1.46E-05 | 1.23E-03 | 1.31E-06 |
| 578154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 578156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579121 | 3.33E+02 | 4.80E-19 | 7.80E+01 | 4.80E-19 | 3.69E+00 | 2.85E-19 | 2.06E-01 | 1.21E-20 |
| 579122 | 5.77E+02 | 7.03E-18 | 1.35E+02 | 7.03E-18 | 6.40E+00 | 4.17E-18 | 3.58E-01 | 1.78E-19 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 579123 | 9.44E+02 | 1.04E-16 | 2.21E+02 | 1.04E-16 | 1.05E+01 | 6.18E-17 | 5.85E-01 | 2.63E-18 |
| 579124 | 1.50E+03 | 1.19E-15 | 3.51E+02 | 1.19E-15 | 1.66E+01 | 7.05E-16 | 9.29E-01 | 3.00E-17 |
| 579125 | 2.35E+03 | 1.09E-14 | 5.51E+02 | 1.09E-14 | 2.61E+01 | 6.50E-15 | 1.46E+00 | 2.76E-16 |
| 579126 | 3.19E+03 | 3.63E-09 | 7.48E+02 | 3.06E-09 | 3.54E+01 | 7.85E-10 | 1.98E+00 | 5.56E-11 |
| 579127 | 4.98E+03 | 1.56E-09 | 1.17E+03 | 1.31E-09 | 5.52E+01 | 3.36E-10 | 3.09E+00 | 2.37E-11 |
| 579128 | 6.88E+03 | 3.66E-05 | 1.61E+03 | 3.66E-05 | 7.63E+01 | 1.45E-05 | 4.27E+00 | 1.31E-06 |
| 579129 | 8.32E+03 | 3.66E-05 | 1.95E+03 | 3.66E-05 | 9.22E+01 | 1.45E-05 | 5.16E+00 | 1.31E-06 |
| 579130 | 8.44E+03 | 8.50E-05 | 1.98E+03 | 8.50E-05 | 9.35E+01 | 3.88E-05 | 5.23E+00 | 2.41E-06 |
| 579131 | 6.88E+03 | 3.66E-05 | 1.61E+03 | 3.66E-05 | 7.63E+01 | 1.45E-05 | 4.27E+00 | 1.31E-06 |
| 579132 | 4.52E+03 | 3.66E-05 | 1.06E+03 | 3.66E-05 | 5.01E+01 | 1.45E-05 | 2.80E+00 | 1.31E-06 |
| 579133 | 2.24E+03 | 3.66E-05 | 5.24E+02 | 3.66E-05 | 2.48E+01 | 1.45E-05 | 1.39E+00 | 1.31E-06 |
| 579134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579142 | 9.60E-02 | 1.45E-04 | 9.47E-02 | 1.28E-04 | 4.39E-02 | 3.79E-05 | 1.24E-03 | 2.96E-06 |
| 579143 | 9.68E-02 | 1.70E-04 | 9.50E-02 | 1.49E-04 | 4.40E-02 | 4.35E-05 | 1.25E-03 | 3.35E-06 |
| 579144 | 9.53E-02 | 1.12E-04 | 9.42E-02 | 9.97E-05 | 4.38E-02 | 3.09E-05 | 1.24E-03 | 2.46E-06 |
| 579145 | 9.74E-02 | 1.49E-04 | 9.55E-02 | 1.31E-04 | 4.41E-02 | 3.89E-05 | 1.25E-03 | 3.04E-06 |
| 579146 | 3.12E-01 | 2.04E-04 | 2.34E-01 | 1.78E-04 | 7.51E-02 | 5.10E-05 | 2.98E-03 | 3.88E-06 |
| 579147 | 7.19E-01 | 2.18E-04 | 4.98E-01 | 1.89E-04 | 1.34E-01 | 5.39E-05 | 6.27E-03 | 4.09E-06 |
| 579148 | 1.90E-01 | 1.91E-04 | 1.55E-01 | 1.67E-04 | 5.75E-02 | 4.81E-05 | 1.99E-03 | 3.68E-06 |
| 579149 | 9.76E-02 | 1.59E-04 | 9.56E-02 | 1.39E-04 | 4.41E-02 | 4.10E-05 | 1.25E-03 | 3.18E-06 |
| 579150 | 9.58E-02 | 1.32E-04 | 9.45E-02 | 1.17E-04 | 4.39E-02 | 3.53E-05 | 1.24E-03 | 2.77E-06 |
| 579151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 579156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580057 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 580067 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 580077 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 580087 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 580097 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 580107 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 580120 | 3.05E+02 | 2.78E-19 | 7.15E+01 | 2.78E-19 | 3.38E+00 | 1.65E-19 | 1.89E-01 | 7.03E-21 |
| 580121 | 5.02E+02 | 2.58E-18 | 1.18E+02 | 2.58E-18 | 5.57E+00 | 1.53E-18 | 3.11E-01 | 6.51E-20 |
| 580122 | 7.94E+02 | 2.60E-17 | 1.86E+02 | 2.60E-17 | 8.79E+00 | 1.55E-17 | 4.92E-01 | 6.58E-19 |
| 580123 | 1.23E+03 | 3.37E-16 | 2.87E+02 | 3.37E-16 | 1.36E+01 | 2.00E-16 | 7.60E-01 | 8.51E-18 |
| 580124 | 1.87E+03 | 3.15E-08 | 4.38E+02 | 2.73E-08 | 2.07E+01 | 6.57E-09 | 1.16E+00 | 4.76E-10 |
| 580125 | 2.68E+03 | 1.60E-08 | 6.27E+02 | 1.34E-08 | 2.96E+01 | 3.45E-09 | 1.66E+00 | 2.44E-10 |
| 580126 | 3.53E+03 | 8.76E-09 | 8.27E+02 | 7.38E-09 | 3.91E+01 | 1.90E-09 | 2.19E+00 | 1.34E-10 |
| 580127 | 5.16E+03 | 4.43E-09 | 1.21E+03 | 3.72E-09 | 5.71E+01 | 9.56E-10 | 3.20E+00 | 6.76E-11 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 580128 | 6.33E+03 | 3.66E-05 | 1.48E+03 | 3.66E-05 | 7.01E+01 | 1.45E-05 | 3.92E+00 | 1.31E-06 |
| 580129 | 6.94E+03 | 3.66E-05 | 1.62E+03 | 3.66E-05 | 7.69E+01 | 1.45E-05 | 4.30E+00 | 1.31E-06 |
| 580130 | 6.72E+03 | 3.66E-05 | 1.57E+03 | 3.66E-05 | 7.44E+01 | 1.45E-05 | 4.16E+00 | 1.31E-06 |
| 580131 | 5.27E+03 | 3.66E-05 | 1.23E+03 | 3.66E-05 | 5.84E+01 | 1.46E-05 | 3.26E+00 | 1.31E-06 |
| 580132 | 3.13E+03 | 3.66E-05 | 7.33E+02 | 3.66E-05 | 3.47E+01 | 1.45E-05 | 1.94E+00 | 1.31E-06 |
| 580133 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580142 | 9.68E-02 | 1.77E-04 | 9.51E-02 | 1.55E-04 | 4.41E-02 | 4.50E-05 | 1.25E-03 | 3.45E-06 |
| 580143 | 9.77E-02 | 2.06E-04 | 9.56E-02 | 1.79E-04 | 4.42E-02 | 5.12E-05 | 1.25E-03 | 3.89E-06 |
| 580144 | 9.69E-02 | 1.71E-04 | 9.51E-02 | 1.50E-04 | 4.41E-02 | 4.37E-05 | 1.25E-03 | 3.36E-06 |
| 580145 | 1.01E-01 | 1.91E-04 | 9.77E-02 | 1.67E-04 | 4.47E-02 | 4.81E-05 | 1.28E-03 | 3.68E-06 |
| 580146 | 2.00E-01 | 2.15E-04 | 1.62E-01 | 1.87E-04 | 5.90E-02 | 5.28E-05 | 2.07E-03 | 4.02E-06 |
| 580147 | 2.77E-01 | 4.37E-03 | 2.20E-01 | 4.35E-03 | 6.90E-02 | 5.16E-04 | 2.97E-03 | 3.38E-05 |
| 580148 | 1.10E-01 | 1.86E-04 | 1.04E-01 | 1.62E-04 | 4.60E-02 | 4.69E-05 | 1.35E-03 | 3.60E-06 |
| 580149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 580157 | 1.15E-03 | 2.60E-07 | 1.15E-03 | 2.60E-07 | 7.30E-04 | 1.05E-07 | 2.04E-05 | 9.21E-09 |
| 580167 | 1.15E-03 | 2.60E-07 | 1.15E-03 | 2.60E-07 | 7.30E-04 | 1.05E-07 | 2.04E-05 | 9.20E-09 |
| 580177 | 1.15E-03 | 2.60E-07 | 1.15E-03 | 2.60E-07 | 7.30E-04 | 1.05E-07 | 2.04E-05 | 9.20E-09 |
| 580187 | 1.15E-03 | 2.60E-07 | 1.15E-03 | 2.60E-07 | 7.30E-04 | 1.05E-07 | 2.04E-05 | 9.20E-09 |
| 580197 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 580207 | 1.14E-03 | 2.60E-07 | 1.14E-03 | 2.60E-07 | 7.24E-04 | 1.05E-07 | 2.02E-05 | 9.20E-09 |
| 581118 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581119 | 2.61E+02 | 3.66E-05 | 6.12E+01 | 3.66E-05 | 2.93E+00 | 1.45E-05 | 1.63E-01 | 1.31E-06 |
| 581120 | 4.12E+02 | 3.66E-05 | 9.87E+01 | 3.66E-05 | 4.61E+00 | 1.45E-05 | 2.57E-01 | 1.31E-06 |
| 581121 | 6.38E+02 | 3.66E-05 | 1.50E+02 | 3.66E-05 | 7.11E+00 | 1.45E-05 | 3.97E-01 | 1.31E-06 |
| 581122 | 9.88E+02 | 3.66E-05 | 2.31E+02 | 3.66E-05 | 1.09E+01 | 1.45E-05 | 6.13E-01 | 1.31E-06 |
| 581123 | 1.43E+03 | 3.67E-05 | 3.35E+02 | 3.67E-05 | 1.59E+01 | 1.46E-05 | 8.89E-01 | 1.32E-06 |
| 581124 | 1.99E+03 | 3.67E-05 | 4.87E+02 | 3.66E-05 | 2.21E+01 | 1.46E-05 | 1.23E+00 | 1.31E-06 |
| 581125 | 2.66E+03 | 3.66E-05 | 6.24E+02 | 3.66E-05 | 2.95E+01 | 1.46E-05 | 1.65E+00 | 1.31E-06 |
| 581126 | 3.44E+03 | 3.66E-05 | 8.06E+02 | 3.66E-05 | 3.81E+01 | 1.46E-05 | 2.13E+00 | 1.31E-06 |
| 581127 | 4.11E+03 | 3.66E-05 | 9.63E+02 | 3.66E-05 | 4.56E+01 | 1.46E-05 | 2.55E+00 | 1.31E-06 |
| 581128 | 4.61E+03 | 3.66E-05 | 1.08E+03 | 3.66E-05 | 5.10E+01 | 1.46E-05 | 2.86E+00 | 1.31E-06 |
| 581129 | 4.64E+03 | 3.66E-05 | 1.09E+03 | 3.66E-05 | 5.14E+01 | 1.45E-05 | 2.88E+00 | 1.31E-06 |
| 581130 | 4.34E+03 | 3.66E-05 | 1.02E+03 | 3.66E-05 | 4.81E+01 | 1.45E-05 | 2.69E+00 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 581131 | 3.38E+03 | 3.66E-05 | 7.92E+02 | 3.66E-05 | 3.75E+01 | 1.45E-05 | 2.09E+00 | 1.31E-06 |
| 581132 | 2.01E+03 | 3.66E-05 | 4.72E+02 | 3.66E-05 | 2.23E+01 | 1.45E-05 | 1.25E+00 | 1.31E-06 |
| 581133 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581141 | 9.66E-02 | 1.74E-04 | 9.50E-02 | 1.52E-04 | 4.41E-02 | 4.41E-05 | 1.25E-03 | 3.40E-06 |
| 581142 | 9.77E-02 | 2.11E-04 | 9.56E-02 | 1.83E-04 | 4.42E-02 | 5.23E-05 | 1.25E-03 | 3.97E-06 |
| 581143 | 9.85E-02 | 2.39E-04 | 9.61E-02 | 2.07E-04 | 4.43E-02 | 5.83E-05 | 1.26E-03 | 4.39E-06 |
| 581144 | 9.92E-02 | 2.63E-04 | 9.64E-02 | 2.28E-04 | 4.44E-02 | 6.36E-05 | 1.26E-03 | 4.77E-06 |
| 581145 | 9.90E-02 | 2.00E-04 | 9.63E-02 | 1.74E-04 | 4.44E-02 | 4.99E-05 | 1.26E-03 | 3.81E-06 |
| 581146 | 1.33E-01 | 2.16E-04 | 1.19E-01 | 1.88E-04 | 4.93E-02 | 5.35E-05 | 1.54E-03 | 4.06E-06 |
| 581147 | 1.15E-01 | 2.25E-03 | 1.07E-01 | 2.23E-03 | 4.67E-02 | 5.12E-04 | 1.39E-03 | 3.35E-05 |
| 581148 | 9.82E-02 | 1.86E-04 | 9.59E-02 | 1.63E-04 | 4.42E-02 | 4.70E-05 | 1.26E-03 | 3.60E-06 |
| 581149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 581156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582118 | 2.13E+02 | 3.66E-05 | 4.99E+01 | 3.66E-05 | 2.40E+00 | 1.45E-05 | 1.33E-01 | 1.31E-06 |
| 582119 | 3.29E+02 | 3.66E-05 | 7.71E+01 | 3.66E-05 | 3.68E+00 | 1.45E-05 | 2.05E-01 | 1.31E-06 |
| 582120 | 4.96E+02 | 3.66E-05 | 1.16E+02 | 3.66E-05 | 5.53E+00 | 1.45E-05 | 3.08E-01 | 1.31E-06 |
| 582121 | 7.44E+02 | 3.66E-05 | 1.74E+02 | 3.66E-05 | 8.28E+00 | 1.45E-05 | 4.62E-01 | 1.31E-06 |
| 582122 | 1.06E+03 | 3.67E-05 | 2.48E+02 | 3.67E-05 | 1.17E+01 | 1.46E-05 | 6.58E-01 | 1.32E-06 |
| 582123 | 1.44E+03 | 3.67E-05 | 3.37E+02 | 3.67E-05 | 1.59E+01 | 1.46E-05 | 8.92E-01 | 1.32E-06 |
| 582124 | 1.93E+03 | 3.67E-05 | 4.51E+02 | 3.67E-05 | 2.13E+01 | 1.46E-05 | 1.19E+00 | 1.32E-06 |
| 582125 | 2.38E+03 | 3.67E-05 | 5.58E+02 | 3.66E-05 | 2.64E+01 | 1.46E-05 | 1.48E+00 | 1.31E-06 |
| 582126 | 2.78E+03 | 3.66E-05 | 6.51E+02 | 3.66E-05 | 3.08E+01 | 1.46E-05 | 1.72E+00 | 1.31E-06 |
| 582127 | 3.04E+03 | 3.66E-05 | 7.12E+02 | 3.66E-05 | 3.37E+01 | 1.46E-05 | 1.89E+00 | 1.31E-06 |
| 582128 | 3.14E+03 | 3.66E-05 | 7.34E+02 | 3.66E-05 | 3.47E+01 | 1.46E-05 | 1.94E+00 | 1.31E-06 |
| 582129 | 2.86E+03 | 3.66E-05 | 6.70E+02 | 3.66E-05 | 3.17E+01 | 1.46E-05 | 1.77E+00 | 1.31E-06 |
| 582130 | 2.32E+03 | 3.66E-05 | 5.43E+02 | 3.66E-05 | 2.57E+01 | 1.45E-05 | 1.44E+00 | 1.31E-06 |
| 582131 | 1.69E+03 | 3.66E-05 | 3.96E+02 | 3.66E-05 | 1.88E+01 | 1.45E-05 | 1.05E+00 | 1.31E-06 |
| 582132 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582133 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 582140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582141 | 9.67E-02 | 1.77E-04 | 9.51E-02 | 1.55E-04 | 4.41E-02 | 4.49E-05 | 1.25E-03 | 3.45E-06 |
| 582142 | 9.78E-02 | 2.15E-04 | 9.57E-02 | 1.87E-04 | 4.42E-02 | 5.32E-05 | 1.25E-03 | 4.03E-06 |
| 582143 | 9.90E-02 | 2.51E-04 | 9.63E-02 | 2.18E-04 | 4.44E-02 | 6.11E-05 | 1.26E-03 | 4.59E-06 |
| 582144 | 1.14E-01 | 2.83E-04 | 1.06E-01 | 2.44E-04 | 4.66E-02 | 6.79E-05 | 1.38E-03 | 5.06E-06 |
| 582145 | 3.48E-01 | 3.04E-04 | 2.60E-01 | 2.62E-04 | 8.12E-02 | 7.24E-05 | 3.31E-03 | 5.39E-06 |
| 582146 | 7.57E-01 | 3.11E-04 | 5.29E-01 | 2.68E-04 | 1.42E-01 | 7.42E-05 | 6.69E-03 | 5.51E-06 |
| 582147 | 6.29E-01 | 5.60E-04 | 4.45E-01 | 4.78E-04 | 1.23E-01 | 1.28E-04 | 5.63E-03 | 9.32E-06 |
| 582148 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 582156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583116 | 1.08E+02 | 0.00E+00 | 2.54E+01 | 0.00E+00 | 1.20E+00 | 0.00E+00 | 6.71E-02 | 0.00E+00 |
| 583117 | 1.67E+02 | 0.00E+00 | 3.90E+01 | 0.00E+00 | 1.85E+00 | 0.00E+00 | 1.03E-01 | 0.00E+00 |
| 583118 | 2.53E+02 | 3.66E-05 | 5.94E+01 | 3.66E-05 | 2.84E+00 | 1.45E-05 | 1.58E-01 | 1.31E-06 |
| 583119 | 3.73E+02 | 3.66E-05 | 8.75E+01 | 3.66E-05 | 4.17E+00 | 1.45E-05 | 2.32E-01 | 1.31E-06 |
| 583120 | 5.48E+02 | 3.66E-05 | 1.28E+02 | 3.66E-05 | 6.11E+00 | 1.45E-05 | 3.41E-01 | 1.31E-06 |
| 583121 | 7.60E+02 | 3.66E-05 | 1.78E+02 | 3.66E-05 | 8.47E+00 | 1.45E-05 | 4.72E-01 | 1.31E-06 |
| 583122 | 1.01E+03 | 3.67E-05 | 2.37E+02 | 3.67E-05 | 1.12E+01 | 1.46E-05 | 6.27E-01 | 1.32E-06 |
| 583123 | 1.32E+03 | 3.67E-05 | 3.09E+02 | 3.67E-05 | 1.46E+01 | 1.46E-05 | 8.20E-01 | 1.32E-06 |
| 583124 | 1.62E+03 | 3.67E-05 | 3.78E+02 | 3.67E-05 | 1.79E+01 | 1.46E-05 | 1.00E+00 | 1.32E-06 |
| 583125 | 1.85E+03 | 3.67E-05 | 4.34E+02 | 3.67E-05 | 2.05E+01 | 1.46E-05 | 1.15E+00 | 1.32E-06 |
| 583126 | 2.01E+03 | 3.67E-05 | 4.71E+02 | 3.66E-05 | 2.23E+01 | 1.46E-05 | 1.25E+00 | 1.31E-06 |
| 583127 | 2.06E+03 | 3.66E-05 | 4.84E+02 | 3.66E-05 | 2.29E+01 | 1.46E-05 | 1.28E+00 | 1.31E-06 |
| 583128 | 1.90E+03 | 3.66E-05 | 4.45E+02 | 3.66E-05 | 2.10E+01 | 1.46E-05 | 1.18E+00 | 1.31E-06 |
| 583129 | 1.59E+03 | 3.66E-05 | 3.72E+02 | 3.66E-05 | 1.76E+01 | 1.46E-05 | 9.85E-01 | 1.31E-06 |
| 583130 | 1.18E+03 | 3.66E-05 | 2.77E+02 | 3.66E-05 | 1.31E+01 | 1.46E-05 | 7.34E-01 | 1.31E-06 |
| 583131 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583132 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583133 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583141 | 9.66E-02 | 1.74E-04 | 9.50E-02 | 1.52E-04 | 4.41E-02 | 4.41E-05 | 1.25E-03 | 3.40E-06 |
| 583142 | 9.77E-02 | 2.11E-04 | 9.56E-02 | 1.83E-04 | 4.42E-02 | 5.23E-05 | 1.25E-03 | 3.97E-06 |
| 583143 | 9.87E-02 | 2.45E-04 | 9.62E-02 | 2.13E-04 | 4.44E-02 | 5.98E-05 | 1.26E-03 | 4.50E-06 |
| 583144 | 1.08E-01 | 2.77E-04 | 1.02E-01 | 2.38E-04 | 4.57E-02 | 6.66E-05 | 1.33E-03 | 4.98E-06 |
| 583145 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583146 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 583147 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583148 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 583156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584113 | 4.10E+01 | 0.00E+00 | 9.59E+00 | 0.00E+00 | 4.54E-01 | 0.00E+00 | 2.54E-02 | 0.00E+00 |
| 584114 | 6.99E+01 | 0.00E+00 | 1.64E+01 | 0.00E+00 | 7.75E-01 | 0.00E+00 | 4.33E-02 | 0.00E+00 |
| 584115 | 1.07E+02 | 0.00E+00 | 2.50E+01 | 0.00E+00 | 1.18E+00 | 0.00E+00 | 6.60E-02 | 0.00E+00 |
| 584116 | 1.44E+02 | 0.00E+00 | 3.38E+01 | 0.00E+00 | 1.60E+00 | 0.00E+00 | 8.94E-02 | 0.00E+00 |
| 584117 | 1.89E+02 | 1.89E-21 | 4.43E+01 | 1.89E-21 | 2.10E+00 | 1.12E-21 | 1.17E-01 | 4.78E-23 |
| 584118 | 2.81E+02 | 3.66E-05 | 6.60E+01 | 3.66E-05 | 3.16E+00 | 1.45E-05 | 1.75E-01 | 1.31E-06 |
| 584119 | 3.94E+02 | 3.66E-05 | 9.24E+01 | 3.66E-05 | 4.41E+00 | 1.45E-05 | 2.45E-01 | 1.31E-06 |
| 584120 | 5.33E+02 | 3.66E-05 | 1.25E+02 | 3.66E-05 | 5.95E+00 | 1.45E-05 | 3.32E-01 | 1.31E-06 |
| 584121 | 6.99E+02 | 3.68E-05 | 1.64E+02 | 3.67E-05 | 7.79E+00 | 1.46E-05 | 4.34E-01 | 1.32E-06 |
| 584122 | 8.99E+02 | 3.67E-05 | 2.11E+02 | 3.67E-05 | 1.00E+01 | 1.46E-05 | 5.58E-01 | 1.32E-06 |
| 584123 | 1.08E+03 | 3.67E-05 | 2.52E+02 | 3.67E-05 | 1.19E+01 | 1.46E-05 | 6.68E-01 | 1.32E-06 |
| 584124 | 1.23E+03 | 3.67E-05 | 2.87E+02 | 3.67E-05 | 1.36E+01 | 1.46E-05 | 7.61E-01 | 1.32E-06 |
| 584125 | 1.34E+03 | 3.67E-05 | 3.15E+02 | 3.67E-05 | 1.49E+01 | 1.46E-05 | 8.33E-01 | 1.32E-06 |
| 584126 | 1.34E+03 | 3.67E-05 | 3.13E+02 | 3.67E-05 | 1.48E+01 | 1.46E-05 | 8.30E-01 | 1.32E-06 |
| 584127 | 1.24E+03 | 3.67E-05 | 2.90E+02 | 3.66E-05 | 1.37E+01 | 1.46E-05 | 7.68E-01 | 1.31E-06 |
| 584128 | 1.04E+03 | 3.66E-05 | 2.43E+02 | 3.66E-05 | 1.15E+01 | 1.46E-05 | 6.44E-01 | 1.31E-06 |
| 584129 | 7.77E+02 | 3.66E-05 | 1.82E+02 | 3.66E-05 | 8.65E+00 | 1.46E-05 | 4.83E-01 | 1.31E-06 |
| 584130 | 5.69E-01 | 3.66E-05 | 2.04E-01 | 3.66E-05 | 4.88E-02 | 1.46E-05 | 1.52E-03 | 1.31E-06 |
| 584131 | 3.37E-01 | 3.66E-05 | 1.50E-01 | 3.66E-05 | 4.62E-02 | 1.45E-05 | 1.37E-03 | 1.31E-06 |
| 584132 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584133 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584141 | 9.63E-02 | 1.63E-04 | 9.49E-02 | 1.43E-04 | 4.40E-02 | 4.18E-05 | 1.24E-03 | 3.23E-06 |
| 584142 | 9.73E-02 | 1.97E-04 | 9.54E-02 | 1.71E-04 | 4.41E-02 | 4.92E-05 | 1.25E-03 | 3.75E-06 |
| 584143 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584144 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584145 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584146 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584147 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584148 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 584151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 584156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585113 | 5.06E+01 | 0.00E+00 | 1.18E+01 | 0.00E+00 | 5.60E-01 | 0.00E+00 | 3.13E-02 | 0.00E+00 |
| 585114 | 8.60E+01 | 0.00E+00 | 2.01E+01 | 0.00E+00 | 9.53E-01 | 0.00E+00 | 5.33E-02 | 0.00E+00 |
| 585115 | 1.30E+02 | 0.00E+00 | 3.05E+01 | 0.00E+00 | 1.45E+00 | 0.00E+00 | 8.08E-02 | 0.00E+00 |
| 585116 | 1.76E+02 | 9.64E-23 | 4.12E+01 | 9.64E-23 | 1.95E+00 | 5.72E-23 | 1.09E-01 | 2.43E-24 |
| 585117 | 2.13E+02 | 2.81E-21 | 4.99E+01 | 2.81E-21 | 2.36E+00 | 1.67E-21 | 1.32E-01 | 7.10E-23 |
| 585118 | 2.78E+02 | 3.66E-05 | 6.51E+01 | 3.66E-05 | 3.12E+00 | 1.45E-05 | 1.73E-01 | 1.31E-06 |
| 585119 | 3.69E+02 | 3.66E-05 | 8.65E+01 | 3.66E-05 | 4.13E+00 | 1.45E-05 | 2.30E-01 | 1.31E-06 |
| 585120 | 4.88E+02 | 3.68E-05 | 1.14E+02 | 3.68E-05 | 5.45E+00 | 1.46E-05 | 3.03E-01 | 1.32E-06 |
| 585121 | 5.99E+02 | 3.69E-05 | 1.40E+02 | 3.68E-05 | 6.68E+00 | 1.46E-05 | 3.73E-01 | 1.32E-06 |
| 585122 | 7.10E+02 | 3.68E-05 | 1.66E+02 | 3.67E-05 | 7.91E+00 | 1.46E-05 | 4.41E-01 | 1.32E-06 |
| 585123 | 7.94E+02 | 3.68E-05 | 1.86E+02 | 3.68E-05 | 8.83E+00 | 1.46E-05 | 4.93E-01 | 1.32E-06 |
| 585124 | 8.66E+02 | 3.68E-05 | 2.03E+02 | 3.67E-05 | 9.63E+00 | 1.46E-05 | 5.38E-01 | 1.32E-06 |
| 585125 | 8.60E+02 | 3.68E-05 | 2.02E+02 | 3.67E-05 | 9.57E+00 | 1.46E-05 | 5.34E-01 | 1.32E-06 |
| 585126 | 8.05E+02 | 3.67E-05 | 1.88E+02 | 3.67E-05 | 8.96E+00 | 1.46E-05 | 5.00E-01 | 1.32E-06 |
| 585127 | 6.88E+02 | 3.67E-05 | 1.61E+02 | 3.67E-05 | 7.67E+00 | 1.46E-05 | 4.28E-01 | 1.32E-06 |
| 585128 | 5.37E+02 | 3.67E-05 | 1.26E+02 | 3.66E-05 | 5.99E+00 | 1.46E-05 | 3.34E-01 | 1.31E-06 |
| 585129 | 3.61E+02 | 3.66E-05 | 8.46E+01 | 3.66E-05 | 4.04E+00 | 1.46E-05 | 2.25E-01 | 1.31E-06 |
| 585130 | 8.98E-01 | 3.66E-05 | 2.82E-01 | 3.66E-05 | 5.24E-02 | 1.45E-05 | 1.72E-03 | 1.31E-06 |
| 585131 | 4.74E-01 | 3.66E-05 | 1.82E-01 | 3.66E-05 | 4.77E-02 | 1.45E-05 | 1.46E-03 | 1.31E-06 |
| 585132 | 4.46E-01 | 3.66E-05 | 1.76E-01 | 3.66E-05 | 4.74E-02 | 1.45E-05 | 1.44E-03 | 1.31E-06 |
| 585133 | 2.75E-01 | 3.66E-05 | 1.36E-01 | 3.66E-05 | 4.55E-02 | 1.45E-05 | 1.33E-03 | 1.31E-06 |
| 585134 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585142 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585143 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585144 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585145 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585146 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585147 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585148 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 585155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 585156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586113 | 5.53E+01 | 0.00E+00 | 1.29E+01 | 0.00E+00 | 6.13E-01 | 0.00E+00 | 3.43E-02 | 0.00E+00 |
| 586114 | 9.38E+01 | 0.00E+00 | 2.20E+01 | 0.00E+00 | 1.04E+00 | 0.00E+00 | 5.81E-02 | 0.00E+00 |
| 586115 | 1.43E+02 | 0.00E+00 | 3.34E+01 | 0.00E+00 | 1.58E+00 | 0.00E+00 | 8.84E-02 | 0.00E+00 |
| 586116 | 1.93E+02 | 1.59E-22 | 4.51E+01 | 1.59E-22 | 2.13E+00 | 9.42E-23 | 1.19E-01 | 4.01E-24 |
| 586117 | 2.33E+02 | 3.20E-21 | 5.46E+01 | 3.20E-21 | 2.58E+00 | 1.90E-21 | 1.44E-01 | 8.08E-23 |
| 586118 | 2.52E+02 | 3.66E-05 | 5.91E+01 | 3.66E-05 | 2.83E+00 | 1.45E-05 | 1.57E-01 | 1.31E-06 |
| 586119 | 3.27E+02 | 3.66E-05 | 7.68E+01 | 3.66E-05 | 3.67E+00 | 1.45E-05 | 2.04E-01 | 1.31E-06 |
| 586120 | 3.97E+02 | 3.70E-05 | 9.32E+01 | 3.69E-05 | 4.44E+00 | 1.46E-05 | 2.47E-01 | 1.32E-06 |
| 586121 | 4.62E+02 | 3.70E-05 | 1.08E+02 | 3.69E-05 | 5.16E+00 | 1.46E-05 | 2.88E-01 | 1.32E-06 |
| 586122 | 5.26E+02 | 3.68E-05 | 1.23E+02 | 3.68E-05 | 5.87E+00 | 1.46E-05 | 3.27E-01 | 1.32E-06 |
| 586123 | 5.53E+02 | 3.68E-05 | 1.30E+02 | 3.68E-05 | 6.17E+00 | 1.46E-05 | 3.44E-01 | 1.32E-06 |
| 586124 | 5.48E+02 | 3.68E-05 | 1.28E+02 | 3.68E-05 | 6.11E+00 | 1.46E-05 | 3.41E-01 | 1.32E-06 |
| 586125 | 5.07E+02 | 3.68E-05 | 1.19E+02 | 3.68E-05 | 5.66E+00 | 1.46E-05 | 3.15E-01 | 1.32E-06 |
| 586126 | 4.38E+02 | 3.68E-05 | 1.03E+02 | 3.67E-05 | 4.90E+00 | 1.46E-05 | 2.73E-01 | 1.32E-06 |
| 586127 | 3.50E+02 | 3.68E-05 | 8.20E+01 | 3.67E-05 | 3.91E+00 | 1.46E-05 | 2.18E-01 | 1.32E-06 |
| 586128 | 2.51E+02 | 3.67E-05 | 5.89E+01 | 3.67E-05 | 2.82E+00 | 1.46E-05 | 1.56E-01 | 1.32E-06 |
| 586129 | 2.35E+00 | 3.66E-05 | 6.23E-01 | 3.66E-05 | 6.87E-02 | 1.46E-05 | 2.62E-03 | 1.31E-06 |
| 586130 | 1.23E+00 | 3.66E-05 | 3.59E-01 | 3.66E-05 | 5.61E-02 | 1.45E-05 | 1.93E-03 | 1.31E-06 |
| 586131 | 1.14E+00 | 3.66E-05 | 3.40E-01 | 3.66E-05 | 5.52E-02 | 1.45E-05 | 1.88E-03 | 1.31E-06 |
| 586132 | 6.59E-01 | 3.66E-05 | 2.26E-01 | 3.66E-05 | 4.98E-02 | 1.45E-05 | 1.57E-03 | 1.31E-06 |
| 586133 | 3.67E-01 | 3.66E-05 | 1.57E-01 | 3.66E-05 | 4.65E-02 | 1.45E-05 | 1.39E-03 | 1.31E-06 |
| 586134 | 2.34E-01 | 3.66E-05 | 1.26E-01 | 3.66E-05 | 4.51E-02 | 1.45E-05 | 1.31E-03 | 1.31E-06 |
| 586135 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586136 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586137 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586138 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586139 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586140 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586141 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586142 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586143 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586144 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586145 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586146 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586147 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586148 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586149 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586150 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586151 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586152 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586153 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586154 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586155 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 586156 | 9.31E-02 | 3.66E-05 | 9.31E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587113 | 5.43E+01 | 0.00E+00 | 1.27E+01 | 0.00E+00 | 6.02E-01 | 0.00E+00 | 3.37E-02 | 0.00E+00 |
| 587114 | 9.10E+01 | 0.00E+00 | 2.13E+01 | 0.00E+00 | 1.01E+00 | 0.00E+00 | 5.64E-02 | 0.00E+00 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 587115 | 1.40E+02 | 7.95E-24 | 3.28E+01 | 7.95E-24 | 1.55E+00 | 4.72E-24 | 8.67E-02 | 2.01E-25 |
| 587116 | 1.88E+02 | 2.16E-22 | 4.41E+01 | 2.16E-22 | 2.08E+00 | 1.28E-22 | 1.17E-01 | 5.46E-24 |
| 587117 | 2.28E+02 | 3.88E-21 | 5.33E+01 | 3.88E-21 | 2.52E+00 | 2.30E-21 | 1.41E-01 | 9.80E-23 |
| 587118 | 2.40E+02 | 3.66E-05 | 5.64E+01 | 3.66E-05 | 2.70E+00 | 1.45E-05 | 1.50E-01 | 1.31E-06 |
| 587119 | 2.60E+02 | 3.71E-05 | 6.11E+01 | 3.70E-05 | 2.92E+00 | 1.47E-05 | 1.62E-01 | 1.32E-06 |
| 587120 | 2.99E+02 | 3.71E-05 | 7.02E+01 | 3.70E-05 | 3.35E+00 | 1.47E-05 | 1.86E-01 | 1.32E-06 |
| 587121 | 3.39E+02 | 3.71E-05 | 7.94E+01 | 3.70E-05 | 3.79E+00 | 1.47E-05 | 2.11E-01 | 1.32E-06 |
| 587122 | 3.53E+02 | 3.71E-05 | 8.28E+01 | 3.70E-05 | 3.95E+00 | 1.47E-05 | 2.20E-01 | 1.32E-06 |
| 587123 | 3.49E+02 | 3.69E-05 | 8.19E+01 | 3.68E-05 | 3.91E+00 | 1.46E-05 | 2.17E-01 | 1.32E-06 |
| 587124 | 3.20E+02 | 3.68E-05 | 7.51E+01 | 3.68E-05 | 3.59E+00 | 1.46E-05 | 1.99E-01 | 1.32E-06 |
| 587125 | 2.84E+02 | 3.68E-05 | 6.65E+01 | 3.68E-05 | 3.18E+00 | 1.46E-05 | 1.77E-01 | 1.32E-06 |
| 587126 | 2.23E+02 | 3.68E-05 | 5.24E+01 | 3.68E-05 | 2.51E+00 | 1.46E-05 | 1.39E-01 | 1.32E-06 |
| 587127 | 1.64E+02 | 3.68E-05 | 3.85E+01 | 3.68E-05 | 1.85E+00 | 1.46E-05 | 1.02E-01 | 1.32E-06 |
| 587128 | 5.46E+00 | 3.68E-05 | 1.35E+00 | 3.67E-05 | 1.03E-01 | 1.46E-05 | 4.55E-03 | 1.32E-06 |
| 587129 | 3.05E+00 | 3.69E-05 | 7.87E-01 | 3.68E-05 | 7.64E-02 | 1.46E-05 | 3.05E-03 | 1.32E-06 |
| 587130 | 2.79E+00 | 3.66E-05 | 7.26E-01 | 3.66E-05 | 7.34E-02 | 1.45E-05 | 2.89E-03 | 1.31E-06 |
| 587131 | 1.64E+00 | 3.66E-05 | 4.57E-01 | 3.66E-05 | 6.07E-02 | 1.45E-05 | 2.18E-03 | 1.31E-06 |
| 587132 | 8.65E-01 | 3.66E-05 | 2.75E-01 | 3.66E-05 | 5.21E-02 | 1.45E-05 | 1.70E-03 | 1.31E-06 |
| 587133 | 5.16E-01 | 3.66E-05 | 1.92E-01 | 3.66E-05 | 4.82E-02 | 1.45E-05 | 1.48E-03 | 1.31E-06 |
| 587134 | 3.43E-01 | 3.66E-05 | 1.52E-01 | 3.66E-05 | 4.63E-02 | 1.45E-05 | 1.38E-03 | 1.31E-06 |
| 587135 | 2.24E-01 | 3.66E-05 | 1.24E-01 | 3.66E-05 | 4.49E-02 | 1.45E-05 | 1.30E-03 | 1.31E-06 |
| 587136 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587137 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587138 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587139 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587140 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587141 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587142 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587143 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587144 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587145 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587146 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587147 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587148 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587149 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587150 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587151 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587152 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587153 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587154 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587155 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 587156 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588113 | 4.76E+01 | 0.00E+00 | 1.12E+01 | 0.00E+00 | 5.28E-01 | 0.00E+00 | 2.95E-02 | 0.00E+00 |
| 588114 | 7.99E+01 | 4.19E-25 | 1.87E+01 | 4.19E-25 | 8.86E-01 | 2.49E-25 | 4.95E-02 | 1.06E-26 |
| 588115 | 1.21E+02 | 1.14E-23 | 2.83E+01 | 1.14E-23 | 1.34E+00 | 6.75E-24 | 7.50E-02 | 2.87E-25 |
| 588116 | 1.64E+02 | 2.48E-22 | 3.85E+01 | 2.48E-22 | 1.82E+00 | 1.47E-22 | 1.02E-01 | 6.27E-24 |
| 588117 | 1.94E+02 | 3.84E-21 | 4.55E+01 | 3.84E-21 | 2.15E+00 | 2.28E-21 | 1.20E-01 | 9.69E-23 |
| 588118 | 1.94E+02 | 3.72E-05 | 4.56E+01 | 3.71E-05 | 2.19E+00 | 1.47E-05 | 1.21E-01 | 1.32E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 588119 | 1.85E+02 | 3.73E-05 | 4.35E+01 | 3.71E-05 | 2.09E+00 | 1.47E-05 | 1.16E-01 | 1.32E-06 |
| 588120 | 2.15E+02 | 3.73E-05 | 5.05E+01 | 3.72E-05 | 2.43E+00 | 1.47E-05 | 1.34E-01 | 1.32E-06 |
| 588121 | 2.23E+02 | 3.73E-05 | 5.24E+01 | 3.72E-05 | 2.51E+00 | 1.47E-05 | 1.39E-01 | 1.32E-06 |
| 588122 | 2.19E+02 | 3.73E-05 | 5.15E+01 | 3.72E-05 | 2.47E+00 | 1.47E-05 | 1.37E-01 | 1.32E-06 |
| 588123 | 2.08E+02 | 3.73E-05 | 4.87E+01 | 3.72E-05 | 2.34E+00 | 1.47E-05 | 1.30E-01 | 1.32E-06 |
| 588124 | 1.81E+02 | 3.73E-05 | 4.25E+01 | 3.72E-05 | 2.04E+00 | 1.47E-05 | 1.13E-01 | 1.32E-06 |
| 588125 | 1.45E+02 | 3.69E-05 | 3.40E+01 | 3.68E-05 | 1.65E+00 | 1.46E-05 | 9.10E-02 | 1.32E-06 |
| 588126 | 1.06E+02 | 3.69E-05 | 2.49E+01 | 3.68E-05 | 1.21E+00 | 1.46E-05 | 6.69E-02 | 1.32E-06 |
| 588127 | 1.10E+01 | 3.71E-05 | 2.65E+00 | 3.70E-05 | 1.65E-01 | 1.47E-05 | 8.00E-03 | 1.32E-06 |
| 588128 | 6.42E+00 | 3.70E-05 | 1.57E+00 | 3.69E-05 | 1.14E-01 | 1.46E-05 | 5.14E-03 | 1.32E-06 |
| 588129 | 6.25E+00 | 3.69E-05 | 1.53E+00 | 3.69E-05 | 1.12E-01 | 1.46E-05 | 5.04E-03 | 1.32E-06 |
| 588130 | 3.89E+00 | 3.69E-05 | 9.85E-01 | 3.68E-05 | 8.57E-02 | 1.46E-05 | 3.58E-03 | 1.32E-06 |
| 588131 | 2.03E+00 | 3.66E-05 | 5.49E-01 | 3.66E-05 | 6.50E-02 | 1.45E-05 | 2.42E-03 | 1.31E-06 |
| 588132 | 1.22E+00 | 3.66E-05 | 3.58E-01 | 3.66E-05 | 5.60E-02 | 1.45E-05 | 1.92E-03 | 1.31E-06 |
| 588133 | 7.93E-01 | 3.66E-05 | 2.58E-01 | 3.66E-05 | 5.13E-02 | 1.45E-05 | 1.65E-03 | 1.31E-06 |
| 588134 | 4.89E-01 | 3.66E-05 | 1.86E-01 | 3.66E-05 | 4.79E-02 | 1.45E-05 | 1.47E-03 | 1.31E-06 |
| 588135 | 3.07E-01 | 3.66E-05 | 1.43E-01 | 3.66E-05 | 4.59E-02 | 1.45E-05 | 1.35E-03 | 1.31E-06 |
| 588136 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588137 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588138 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588139 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588140 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588141 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588142 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588143 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588144 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588145 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588146 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588147 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588148 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588149 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588150 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588151 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588152 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588153 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588154 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588155 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 588156 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589113 | 3.72E+01 | 2.33E-26 | 8.71E+00 | 2.33E-26 | 4.12E-01 | 1.38E-26 | 2.30E-02 | 5.88E-28 |
| 589114 | 6.22E+01 | 7.56E-25 | 1.46E+01 | 7.56E-25 | 6.89E-01 | 4.49E-25 | 3.85E-02 | 1.91E-26 |
| 589115 | 9.49E+01 | 1.65E-23 | 2.22E+01 | 1.65E-23 | 1.05E+00 | 9.78E-24 | 5.88E-02 | 4.16E-25 |
| 589116 | 1.26E+02 | 2.83E-22 | 2.95E+01 | 2.83E-22 | 1.40E+00 | 1.68E-22 | 7.81E-02 | 7.14E-24 |
| 589117 | 1.40E+02 | 3.84E-21 | 3.29E+01 | 3.84E-21 | 1.56E+00 | 2.28E-21 | 8.70E-02 | 9.70E-23 |
| 589118 | 1.49E+02 | 3.74E-05 | 3.49E+01 | 3.73E-05 | 1.69E+00 | 1.47E-05 | 9.34E-02 | 1.33E-06 |
| 589119 | 1.43E+02 | 3.75E-05 | 3.36E+01 | 3.73E-05 | 1.63E+00 | 1.47E-05 | 9.00E-02 | 1.33E-06 |
| 589120 | 1.35E+02 | 3.75E-05 | 3.18E+01 | 3.74E-05 | 1.54E+00 | 1.47E-05 | 8.51E-02 | 1.33E-06 |
| 589121 | 1.38E+02 | 3.75E-05 | 3.25E+01 | 3.74E-05 | 1.57E+00 | 1.48E-05 | 8.69E-02 | 1.33E-06 |
| 589122 | 1.32E+02 | 3.76E-05 | 3.09E+01 | 3.74E-05 | 1.50E+00 | 1.48E-05 | 8.27E-02 | 1.33E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 589123 | 1.14E+02 | 3.75E-05 | 2.67E+01 | 3.74E-05 | 1.30E+00 | 1.47E-05 | 7.17E-02 | 1.33E-06 |
| 589124 | 9.28E+01 | 3.75E-05 | 2.18E+01 | 3.73E-05 | 1.07E+00 | 1.47E-05 | 5.86E-02 | 1.33E-06 |
| 589125 | 7.00E+01 | 3.74E-05 | 1.65E+01 | 3.73E-05 | 8.19E-01 | 1.47E-05 | 4.45E-02 | 1.33E-06 |
| 589126 | 4.83E+01 | 3.74E-05 | 1.14E+01 | 3.72E-05 | 5.78E-01 | 1.47E-05 | 3.11E-02 | 1.33E-06 |
| 589127 | 1.15E+01 | 3.88E-05 | 2.77E+00 | 3.87E-05 | 1.71E-01 | 1.49E-05 | 8.31E-03 | 1.33E-06 |
| 589128 | 1.16E+01 | 3.72E-05 | 2.78E+00 | 3.71E-05 | 1.71E-01 | 1.47E-05 | 8.34E-03 | 1.32E-06 |
| 589129 | 7.64E+00 | 3.71E-05 | 1.86E+00 | 3.70E-05 | 1.27E-01 | 1.47E-05 | 5.90E-03 | 1.32E-06 |
| 589130 | 4.40E+00 | 3.70E-05 | 1.10E+00 | 3.69E-05 | 9.14E-02 | 1.46E-05 | 3.89E-03 | 1.32E-06 |
| 589131 | 2.62E+00 | 3.66E-05 | 6.87E-01 | 3.66E-05 | 7.15E-02 | 1.45E-05 | 2.79E-03 | 1.31E-06 |
| 589132 | 1.78E+00 | 3.66E-05 | 4.90E-01 | 3.66E-05 | 6.23E-02 | 1.45E-05 | 2.27E-03 | 1.31E-06 |
| 589133 | 1.13E+00 | 3.66E-05 | 3.38E-01 | 3.66E-05 | 5.51E-02 | 1.45E-05 | 1.87E-03 | 1.31E-06 |
| 589134 | 6.82E-01 | 3.66E-05 | 2.32E-01 | 3.66E-05 | 5.00E-02 | 1.45E-05 | 1.59E-03 | 1.31E-06 |
| 589135 | 4.09E-01 | 3.66E-05 | 1.67E-01 | 3.66E-05 | 4.70E-02 | 1.45E-05 | 1.42E-03 | 1.31E-06 |
| 589136 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589137 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589138 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589139 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589140 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589141 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589142 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589143 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589144 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589145 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589146 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589147 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589148 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589149 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589150 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589151 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589152 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589153 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589154 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589155 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 589156 | 9.36E-02 | 3.66E-05 | 9.36E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590057 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590067 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590077 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590087 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590097 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590113 | 2.60E+01 | 3.84E-26 | 6.10E+00 | 3.84E-26 | 2.88E-01 | 2.28E-26 | 1.61E-02 | 9.69E-28 |
| 590114 | 4.33E+01 | 9.14E-25 | 1.02E+01 | 9.14E-25 | 4.80E-01 | 5.43E-25 | 2.69E-02 | 2.31E-26 |
| 590115 | 6.55E+01 | 1.89E-23 | 1.53E+01 | 1.89E-23 | 7.26E-01 | 1.12E-23 | 4.06E-02 | 4.76E-25 |
| 590116 | 8.16E+01 | 2.67E-22 | 1.91E+01 | 2.67E-22 | 9.04E-01 | 1.58E-22 | 5.06E-02 | 6.74E-24 |
| 590117 | 9.71E+01 | 9.47E-07 | 2.28E+01 | 7.98E-07 | 1.08E+00 | 2.04E-07 | 6.02E-02 | 1.45E-08 |
| 590118 | 1.04E+02 | 3.76E-05 | 2.44E+01 | 3.75E-05 | 1.19E+00 | 1.48E-05 | 6.55E-02 | 1.33E-06 |
| 590119 | 1.05E+02 | 3.77E-05 | 2.48E+01 | 3.75E-05 | 1.21E+00 | 1.48E-05 | 6.66E-02 | 1.33E-06 |
| 590120 | 1.00E+02 | 3.78E-05 | 2.35E+01 | 3.76E-05 | 1.15E+00 | 1.48E-05 | 6.31E-02 | 1.33E-06 |
| 590121 | 8.22E+01 | 5.67E-02 | 1.93E+01 | 5.67E-02 | 9.54E-01 | 3.32E-02 | 5.21E-02 | 2.15E-03 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 590122 | 7.34E+01 | 3.78E-05 | 1.73E+01 | 3.76E-05 | 8.56E-01 | 1.48E-05 | 4.66E-02 | 1.33E-06 |
| 590123 | 5.89E+01 | 3.78E-05 | 1.39E+01 | 3.76E-05 | 6.96E-01 | 1.48E-05 | 3.77E-02 | 1.33E-06 |
| 590124 | 4.64E+01 | 3.77E-05 | 1.10E+01 | 3.75E-05 | 5.58E-01 | 1.48E-05 | 2.99E-02 | 1.33E-06 |
| 590125 | 3.22E+01 | 3.76E-05 | 7.83E+00 | 3.75E-05 | 4.00E-01 | 1.48E-05 | 2.11E-02 | 1.33E-06 |
| 590126 | 1.75E+01 | 3.76E-05 | 4.18E+00 | 3.74E-05 | 2.37E-01 | 1.48E-05 | 1.20E-02 | 1.33E-06 |
| 590127 | 1.87E+01 | 3.74E-05 | 4.46E+00 | 3.73E-05 | 2.50E-01 | 1.47E-05 | 1.27E-02 | 1.33E-06 |
| 590128 | 1.30E+01 | 3.73E-05 | 3.13E+00 | 3.72E-05 | 1.87E-01 | 1.47E-05 | 9.24E-03 | 1.33E-06 |
| 590129 | 7.93E+00 | 3.72E-05 | 1.93E+00 | 3.71E-05 | 1.30E-01 | 1.47E-05 | 6.07E-03 | 1.32E-06 |
| 590130 | 5.27E+00 | 3.71E-05 | 1.31E+00 | 3.70E-05 | 1.01E-01 | 1.47E-05 | 4.43E-03 | 1.32E-06 |
| 590131 | 3.64E+00 | 3.66E-05 | 9.26E-01 | 3.66E-05 | 8.27E-02 | 1.45E-05 | 3.41E-03 | 1.31E-06 |
| 590132 | 2.44E+00 | 3.66E-05 | 6.44E-01 | 3.66E-05 | 6.94E-02 | 1.45E-05 | 2.67E-03 | 1.31E-06 |
| 590133 | 1.53E+00 | 3.66E-05 | 4.32E-01 | 3.66E-05 | 5.94E-02 | 1.45E-05 | 2.11E-03 | 1.31E-06 |
| 590134 | 9.35E-01 | 3.66E-05 | 2.93E-01 | 3.66E-05 | 5.28E-02 | 1.45E-05 | 1.74E-03 | 1.31E-06 |
| 590135 | 5.41E-01 | 3.66E-05 | 2.01E-01 | 3.66E-05 | 4.84E-02 | 1.45E-05 | 1.50E-03 | 1.31E-06 |
| 590136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 590147 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590157 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590167 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590177 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590187 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590197 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 590207 | 1.15E-03 | 2.74E-07 | 1.15E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 591108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591113 | 1.62E+01 | 3.66E-05 | 3.87E+00 | 3.66E-05 | 2.22E-01 | 1.45E-05 | 1.12E-02 | 1.31E-06 |
| 591114 | 2.68E+01 | 3.66E-05 | 6.35E+00 | 3.66E-05 | 3.40E-01 | 1.45E-05 | 1.77E-02 | 1.31E-06 |
| 591115 | 3.82E+01 | 3.66E-05 | 9.03E+00 | 3.66E-05 | 4.67E-01 | 1.45E-05 | 2.48E-02 | 1.31E-06 |
| 591116 | 5.13E+01 | 3.66E-05 | 1.21E+01 | 3.66E-05 | 6.11E-01 | 1.45E-05 | 3.29E-02 | 1.31E-06 |
| 591117 | 6.11E+01 | 3.78E-05 | 1.44E+01 | 3.76E-05 | 7.21E-01 | 1.48E-05 | 3.90E-02 | 1.33E-06 |
| 591118 | 6.89E+01 | 3.79E-05 | 1.62E+01 | 3.77E-05 | 8.07E-01 | 1.48E-05 | 4.39E-02 | 1.33E-06 |
| 591119 | 7.06E+01 | 3.80E-05 | 1.66E+01 | 3.78E-05 | 8.25E-01 | 1.48E-05 | 4.49E-02 | 1.33E-06 |
| 591120 | 7.06E+01 | 3.80E-05 | 1.66E+01 | 3.78E-05 | 8.25E-01 | 1.49E-05 | 4.49E-02 | 1.34E-06 |
| 591121 | 6.78E+01 | 3.81E-05 | 1.60E+01 | 3.78E-05 | 7.94E-01 | 1.49E-05 | 4.32E-02 | 1.34E-06 |
| 591122 | 3.80E+01 | 3.81E-05 | 9.21E+00 | 3.78E-05 | 4.94E-01 | 1.49E-05 | 3.07E-02 | 1.34E-06 |
| 591123 | 3.01E+01 | 3.80E-05 | 7.13E+00 | 3.78E-05 | 3.77E-01 | 1.49E-05 | 1.98E-02 | 1.34E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 591124 | 2.20E+01 | 3.80E-05 | 5.22E+00 | 3.78E-05 | 2.86E-01 | 1.49E-05 | 1.48E-02 | 1.34E-06 |
| 591125 | 2.27E+01 | 3.79E-05 | 5.40E+00 | 3.77E-05 | 2.95E-01 | 1.48E-05 | 1.52E-02 | 1.33E-06 |
| 591126 | 2.56E+01 | 3.78E-05 | 6.08E+00 | 3.76E-05 | 3.27E-01 | 1.48E-05 | 1.70E-02 | 1.33E-06 |
| 591127 | 1.91E+01 | 3.77E-05 | 4.55E+00 | 3.75E-05 | 2.54E-01 | 1.48E-05 | 1.30E-02 | 1.33E-06 |
| 591128 | 1.25E+01 | 3.75E-05 | 3.01E+00 | 3.74E-05 | 1.82E-01 | 1.47E-05 | 8.93E-03 | 1.33E-06 |
| 591129 | 8.81E+00 | 3.74E-05 | 2.14E+00 | 3.72E-05 | 1.40E-01 | 1.47E-05 | 6.62E-03 | 1.33E-06 |
| 591130 | 6.82E+00 | 3.72E-05 | 1.67E+00 | 3.71E-05 | 1.18E-01 | 1.47E-05 | 5.38E-03 | 1.32E-06 |
| 591131 | 4.71E+00 | 3.66E-05 | 1.18E+00 | 3.66E-05 | 9.45E-02 | 1.45E-05 | 4.08E-03 | 1.31E-06 |
| 591132 | 3.14E+00 | 3.66E-05 | 8.09E-01 | 3.66E-05 | 7.72E-02 | 1.45E-05 | 3.11E-03 | 1.31E-06 |
| 591133 | 1.98E+00 | 3.66E-05 | 5.36E-01 | 3.66E-05 | 6.43E-02 | 1.45E-05 | 2.38E-03 | 1.31E-06 |
| 591134 | 1.19E+00 | 3.66E-05 | 3.52E-01 | 3.66E-05 | 5.56E-02 | 1.45E-05 | 1.90E-03 | 1.31E-06 |
| 591135 | 1.25E+00 | 3.66E-05 | 3.67E-01 | 3.66E-05 | 5.63E-02 | 1.45E-05 | 1.94E-03 | 1.31E-06 |
| 591136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 591146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592113 | 9.04E+00 | 3.66E-05 | 2.19E+00 | 3.66E-05 | 1.43E-01 | 1.45E-05 | 6.76E-03 | 1.31E-06 |
| 592114 | 1.44E+01 | 3.66E-05 | 3.45E+00 | 3.66E-05 | 2.03E-01 | 1.45E-05 | 1.01E-02 | 1.31E-06 |
| 592115 | 2.14E+01 | 3.66E-05 | 5.08E+00 | 3.66E-05 | 2.80E-01 | 1.45E-05 | 1.44E-02 | 1.31E-06 |
| 592116 | 2.96E+01 | 1.96E-03 | 7.02E+00 | 1.96E-03 | 3.71E-01 | 3.80E-04 | 1.95E-02 | 2.05E-05 |
| 592117 | 3.70E+01 | 3.80E-05 | 8.73E+00 | 3.78E-05 | 4.52E-01 | 1.49E-05 | 2.40E-02 | 1.34E-06 |
| 592118 | 4.21E+01 | 3.82E-05 | 9.93E+00 | 3.79E-05 | 5.09E-01 | 1.49E-05 | 2.72E-02 | 1.34E-06 |
| 592119 | 4.58E+01 | 3.82E-05 | 1.08E+01 | 3.80E-05 | 5.51E-01 | 1.49E-05 | 2.95E-02 | 1.34E-06 |
| 592120 | 4.63E+01 | 3.83E-05 | 1.09E+01 | 3.80E-05 | 5.56E-01 | 1.49E-05 | 2.98E-02 | 1.34E-06 |
| 592121 | 4.53E+01 | 3.83E-05 | 1.07E+01 | 3.81E-05 | 5.45E-01 | 1.49E-05 | 2.92E-02 | 1.34E-06 |
| 592122 | 4.41E+01 | 3.84E-05 | 1.04E+01 | 3.81E-05 | 5.31E-01 | 1.49E-05 | 2.84E-02 | 1.34E-06 |
| 592123 | 1.48E+01 | 3.83E-05 | 3.53E+00 | 3.81E-05 | 2.06E-01 | 1.49E-05 | 1.03E-02 | 1.34E-06 |
| 592124 | 2.51E+01 | 3.82E-05 | 5.95E+00 | 3.80E-05 | 3.21E-01 | 1.49E-05 | 1.67E-02 | 1.34E-06 |
| 592125 | 3.01E+01 | 3.82E-05 | 7.13E+00 | 3.79E-05 | 3.77E-01 | 1.49E-05 | 1.98E-02 | 1.34E-06 |
| 592126 | 2.41E+01 | 3.80E-05 | 5.73E+00 | 3.78E-05 | 3.10E-01 | 1.49E-05 | 1.61E-02 | 1.34E-06 |
| 592127 | 1.70E+01 | 3.79E-05 | 4.05E+00 | 3.77E-05 | 2.31E-01 | 1.48E-05 | 1.17E-02 | 1.33E-06 |
| 592128 | 1.28E+01 | 3.77E-05 | 3.06E+00 | 3.75E-05 | 1.84E-01 | 1.48E-05 | 9.06E-03 | 1.33E-06 |
| 592129 | 1.06E+01 | 3.75E-05 | 2.56E+00 | 3.74E-05 | 1.60E-01 | 1.48E-05 | 7.72E-03 | 1.33E-06 |
| 592130 | 8.20E+00 | 3.74E-05 | 2.00E+00 | 3.73E-05 | 1.33E-01 | 1.47E-05 | 6.24E-03 | 1.33E-06 |
| 592131 | 5.61E+00 | 3.66E-05 | 1.39E+00 | 3.66E-05 | 1.05E-01 | 1.45E-05 | 4.63E-03 | 1.31E-06 |
| 592132 | 3.79E+00 | 3.66E-05 | 9.62E-01 | 3.66E-05 | 8.44E-02 | 1.45E-05 | 3.51E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 592133 | 2.36E+00 | 3.66E-05 | 6.27E-01 | 3.66E-05 | 6.86E-02 | 1.45E-05 | 2.62E-03 | 1.31E-06 |
| 592134 | 1.39E+00 | 3.66E-05 | 3.99E-01 | 3.66E-05 | 5.78E-02 | 1.45E-05 | 2.02E-03 | 1.31E-06 |
| 592135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 592146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593113 | 4.26E+00 | 3.66E-05 | 1.07E+00 | 3.66E-05 | 8.96E-02 | 1.45E-05 | 3.80E-03 | 1.31E-06 |
| 593114 | 7.48E+00 | 3.66E-05 | 1.83E+00 | 3.66E-05 | 1.25E-01 | 1.45E-05 | 5.80E-03 | 1.31E-06 |
| 593115 | 1.11E+01 | 3.66E-05 | 2.69E+00 | 3.66E-05 | 1.66E-01 | 1.45E-05 | 8.07E-03 | 1.31E-06 |
| 593116 | 1.66E+01 | 1.95E-03 | 3.96E+00 | 1.95E-03 | 2.27E-01 | 3.71E-04 | 1.14E-02 | 1.99E-05 |
| 593117 | 2.05E+01 | 3.82E-05 | 4.87E+00 | 3.79E-05 | 2.70E-01 | 1.49E-05 | 1.38E-02 | 1.34E-06 |
| 593118 | 2.52E+01 | 3.84E-05 | 5.98E+00 | 3.81E-05 | 3.22E-01 | 1.49E-05 | 1.67E-02 | 1.34E-06 |
| 593119 | 2.72E+01 | 3.85E-05 | 6.44E+00 | 3.82E-05 | 3.44E-01 | 1.50E-05 | 1.80E-02 | 1.34E-06 |
| 593120 | 2.95E+01 | 3.86E-05 | 6.98E+00 | 3.83E-05 | 3.69E-01 | 1.50E-05 | 1.94E-02 | 1.34E-06 |
| 593121 | 2.96E+01 | 3.86E-05 | 7.00E+00 | 3.83E-05 | 3.71E-01 | 1.50E-05 | 1.95E-02 | 1.35E-06 |
| 593122 | 2.86E+01 | 3.87E-05 | 6.78E+00 | 3.83E-05 | 3.60E-01 | 1.50E-05 | 1.89E-02 | 1.35E-06 |
| 593123 | 7.48E+00 | 3.86E-05 | 1.83E+00 | 3.83E-05 | 1.25E-01 | 1.50E-05 | 5.81E-03 | 1.34E-06 |
| 593124 | 3.05E+01 | 3.85E-05 | 7.21E+00 | 3.82E-05 | 3.80E-01 | 1.50E-05 | 2.00E-02 | 1.34E-06 |
| 593125 | 2.63E+01 | 3.84E-05 | 6.24E+00 | 3.81E-05 | 3.34E-01 | 1.49E-05 | 1.74E-02 | 1.34E-06 |
| 593126 | 1.98E+01 | 3.83E-05 | 4.72E+00 | 3.80E-05 | 2.62E-01 | 1.49E-05 | 1.34E-02 | 1.34E-06 |
| 593127 | 1.60E+01 | 3.81E-05 | 3.82E+00 | 3.79E-05 | 2.20E-01 | 1.49E-05 | 1.11E-02 | 1.34E-06 |
| 593128 | 1.43E+01 | 3.79E-05 | 3.42E+00 | 3.77E-05 | 2.01E-01 | 1.48E-05 | 9.99E-03 | 1.33E-06 |
| 593129 | 1.19E+01 | 3.77E-05 | 2.86E+00 | 3.75E-05 | 1.74E-01 | 1.48E-05 | 8.51E-03 | 1.33E-06 |
| 593130 | 9.26E+00 | 3.75E-05 | 2.24E+00 | 3.74E-05 | 1.45E-01 | 1.47E-05 | 6.90E-03 | 1.33E-06 |
| 593131 | 6.32E+00 | 3.66E-05 | 1.56E+00 | 3.66E-05 | 1.12E-01 | 1.45E-05 | 5.07E-03 | 1.31E-06 |
| 593132 | 4.17E+00 | 3.66E-05 | 1.05E+00 | 3.66E-05 | 8.86E-02 | 1.45E-05 | 3.74E-03 | 1.31E-06 |
| 593133 | 2.63E+00 | 3.66E-05 | 6.90E-01 | 3.66E-05 | 7.15E-02 | 1.45E-05 | 2.79E-03 | 1.31E-06 |
| 593134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 593142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 593146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594113 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |
| 594114 | 3.46E+00 | 3.66E-05 | 8.84E-01 | 3.66E-05 | 8.07E-02 | 1.45E-05 | 3.30E-03 | 1.31E-06 |
| 594115 | 4.84E+01 | 1.05E-04 | 4.44E+01 | 1.05E-04 | 3.66E+00 | 2.75E-05 | 8.36E-01 | 3.07E-06 |
| 594116 | 8.48E+00 | 5.55E-01 | 2.06E+00 | 5.55E-01 | 1.36E-01 | 5.48E-02 | 6.42E-03 | 3.57E-03 |
| 594117 | 1.14E+01 | 3.82E-05 | 2.74E+00 | 3.79E-05 | 1.69E-01 | 1.49E-05 | 8.21E-03 | 1.34E-06 |
| 594118 | 1.36E+01 | 3.84E-05 | 3.27E+00 | 3.81E-05 | 1.94E-01 | 1.49E-05 | 9.62E-03 | 1.34E-06 |
| 594119 | 1.58E+01 | 3.86E-05 | 3.78E+00 | 3.82E-05 | 2.18E-01 | 1.50E-05 | 1.10E-02 | 1.34E-06 |
| 594120 | 1.72E+01 | 3.87E-05 | 4.12E+00 | 3.84E-05 | 2.34E-01 | 1.50E-05 | 1.18E-02 | 1.35E-06 |
| 594121 | 1.80E+01 | 3.88E-05 | 4.30E+00 | 3.85E-05 | 2.43E-01 | 1.50E-05 | 1.23E-02 | 1.35E-06 |
| 594122 | 1.89E+01 | 3.89E-05 | 4.49E+00 | 3.85E-05 | 2.52E-01 | 1.50E-05 | 1.28E-02 | 1.35E-06 |
| 594123 | 2.66E+01 | 3.89E-05 | 6.31E+00 | 3.85E-05 | 3.38E-01 | 1.50E-05 | 1.76E-02 | 1.35E-06 |
| 594124 | 2.47E+01 | 3.88E-05 | 5.86E+00 | 3.84E-05 | 3.16E-01 | 1.50E-05 | 1.64E-02 | 1.35E-06 |
| 594125 | 2.01E+01 | 3.87E-05 | 4.78E+00 | 3.83E-05 | 2.65E-01 | 1.50E-05 | 1.36E-02 | 1.35E-06 |
| 594126 | 1.74E+01 | 3.85E-05 | 4.14E+00 | 3.82E-05 | 2.35E-01 | 1.50E-05 | 1.19E-02 | 1.34E-06 |
| 594127 | 1.66E+01 | 3.83E-05 | 3.97E+00 | 3.80E-05 | 2.27E-01 | 1.49E-05 | 1.15E-02 | 1.34E-06 |
| 594128 | 1.49E+01 | 3.81E-05 | 3.57E+00 | 3.79E-05 | 2.08E-01 | 1.49E-05 | 1.04E-02 | 1.34E-06 |
| 594129 | 1.24E+01 | 3.79E-05 | 2.99E+00 | 3.77E-05 | 1.81E-01 | 1.48E-05 | 8.86E-03 | 1.33E-06 |
| 594130 | 1.03E+01 | 3.88E-05 | 2.48E+00 | 3.84E-05 | 1.57E-01 | 1.50E-05 | 7.52E-03 | 1.35E-06 |
| 594131 | 6.48E+00 | 3.66E-05 | 1.60E+00 | 3.66E-05 | 1.14E-01 | 1.45E-05 | 5.18E-03 | 1.31E-06 |
| 594132 | 4.36E+00 | 3.66E-05 | 1.09E+00 | 3.66E-05 | 9.07E-02 | 1.45E-05 | 3.86E-03 | 1.31E-06 |
| 594133 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 594146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |
| 595109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |
| 595110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |
| 595111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 595112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |
| 595113 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.23E-03 | 1.31E-06 |
| 595114 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595115 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595116 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595117 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595118 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595119 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595120 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595121 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595122 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595123 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595124 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595125 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595126 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595127 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595128 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595129 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595130 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595131 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595132 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595133 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 595146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596113 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596114 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596115 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596116 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596117 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596118 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596119 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596120 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 596121 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596122 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596123 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596124 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596125 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596126 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596127 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596128 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596129 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596130 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596131 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596132 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596133 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 596146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597113 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597114 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597115 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597116 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597117 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597118 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597119 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597120 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597121 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597122 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597123 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597124 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597125 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597126 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597127 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597128 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597129 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 597130 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597131 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597132 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597133 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 597146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598113 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598114 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598115 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598116 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598117 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598118 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598119 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598120 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598121 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598122 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598123 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598124 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598125 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598126 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598127 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598128 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598129 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598130 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598131 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598132 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598133 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 598139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 598146 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599108 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599109 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599110 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599111 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599112 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599113 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599114 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599115 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599116 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599117 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599118 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599119 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599120 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599121 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599122 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599123 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599124 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599125 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599126 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599127 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599128 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599129 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599130 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599131 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599132 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599133 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599134 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599135 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599136 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599137 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599138 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599139 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599140 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599141 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599142 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599143 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599144 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599145 | 9.72E-02 | 3.66E-05 | 9.72E-02 | 3.66E-05 | 4.35E-02 | 1.45E-05 | 1.22E-03 | 1.31E-06 |
| 599146 | 1.94E-01 | 7.33E-05 | 1.94E-01 | 7.33E-05 | 8.69E-02 | 2.91E-05 | 2.44E-03 | 2.64E-06 |
| 600057 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 600067 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600077 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600087 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600097 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600107 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600117 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600127 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600137 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600147 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600157 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600167 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600177 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600187 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600197 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 600207 | 1.16E-03 | 2.74E-07 | 1.16E-03 | 2.74E-07 | 7.30E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610057 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610067 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610077 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610087 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610097 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610107 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610117 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610127 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610137 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610147 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610157 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610167 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610177 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610187 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610197 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 610207 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620057 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620067 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620077 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620087 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620097 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620107 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620117 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620127 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620137 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620147 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620157 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620167 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620177 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620187 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620197 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 620207 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630057 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |

*Table B5-4. Statistical Increase in Individual Cancer Risk at T100 (year 2089). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 630067 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630077 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630087 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630097 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630107 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630117 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630127 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630137 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630147 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630157 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630167 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630177 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630187 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630197 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 630207 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640057 | 2.47E-03 | 5.49E-07 | 2.47E-03 | 5.48E-07 | 1.46E-03 | 2.19E-07 | 4.08E-05 | 1.92E-08 |
| 640067 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640077 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640087 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640097 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640107 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640117 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640127 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640137 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640147 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640157 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640167 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640177 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640187 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640197 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |
| 640207 | 1.23E-03 | 2.74E-07 | 1.23E-03 | 2.74E-07 | 7.31E-04 | 1.09E-07 | 2.04E-05 | 9.62E-09 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 490057 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490067 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490077 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490087 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490097 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490107 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490117 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490127 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490137 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490147 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490157 | 7.53E-05 | 1.40E-08 | 7.53E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 490167 | 0.00E+00 | 1.67E-12 | 0.00E+00 | 1.66E-12 | 0.00E+00 | 1.51E-13 | 0.00E+00 | 1.42E-14 |
| 490177 | 0.00E+00 | 1.02E-16 | 0.00E+00 | 7.50E-17 | 0.00E+00 | 1.97E-17 | 0.00E+00 | 1.09E-18 |
| 500057 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500067 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500077 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500087 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500097 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500107 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500117 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500127 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500137 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500147 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500157 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 500167 | 7.68E-05 | 1.50E-08 | 7.68E-05 | 1.50E-08 | 5.06E-05 | 6.01E-09 | 1.41E-06 | 5.23E-10 |
| 500177 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 500187 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 500197 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 500207 | 7.56E-05 | 1.40E-08 | 7.56E-05 | 1.40E-08 | 4.98E-05 | 5.66E-09 | 1.39E-06 | 4.92E-10 |
| 510057 | 7.87E-05 | 1.50E-08 | 7.87E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510067 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510077 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510087 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510097 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510107 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510117 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510127 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510137 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510147 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510157 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510167 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510177 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510187 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510197 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 510207 | 7.77E-05 | 1.50E-08 | 7.77E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520057 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520067 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520077 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 520087 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520097 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520107 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520117 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520127 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520137 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520147 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520157 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520167 | 7.87E-05 | 1.50E-08 | 7.87E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520177 | 7.87E-05 | 1.50E-08 | 7.87E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520187 | 7.87E-05 | 1.50E-08 | 7.87E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520197 | 7.87E-05 | 1.50E-08 | 7.87E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 520207 | 7.87E-05 | 1.50E-08 | 7.87E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530057 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530067 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530077 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530087 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530097 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530107 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530117 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530127 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530137 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530147 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530157 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530167 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530177 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530187 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530197 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 530207 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 540057 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540067 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540077 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540087 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540097 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540107 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540117 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540127 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540137 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540147 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 540157 | 2.24E-04 | 1.72E-08 | 2.24E-04 | 1.72E-08 | 1.48E-04 | 7.02E-09 | 4.13E-06 | 5.66E-10 |
| 540167 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 540177 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 540187 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 540197 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 540207 | 7.99E-05 | 1.50E-08 | 7.99E-05 | 1.50E-08 | 5.12E-05 | 6.01E-09 | 1.43E-06 | 5.23E-10 |
| 550057 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550067 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550077 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 550087 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550097 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550107 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550117 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550127 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550137 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550147 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550157 | 2.45E-04 | 6.98E-08 | 2.45E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 550167 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 550177 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 550187 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 550197 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 550207 | 2.41E-04 | 6.57E-08 | 2.41E-04 | 6.57E-08 | 1.48E-04 | 2.65E-08 | 4.14E-06 | 2.34E-09 |
| 560057 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560067 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560077 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560087 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560097 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560107 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560117 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 560157 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 560167 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 560177 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 560187 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 560197 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 560207 | 2.46E-04 | 6.98E-08 | 2.46E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.21E-06 | 2.47E-09 |
| 561128 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561129 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561130 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561131 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561132 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561133 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561134 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561135 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561136 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561137 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561138 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561139 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561140 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561141 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561142 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561143 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561144 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561145 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561146 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561147 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561148 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561149 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 561150 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561151 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561152 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561153 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561154 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561155 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 561156 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 562128 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 562129 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 562130 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 562131 | 2.41E-03 | 1.22E-06 | 2.41E-03 | 1.22E-06 | 1.20E-03 | 4.88E-07 | 3.36E-05 | 4.42E-08 |
| 562132 | 2.41E-03 | 6.32E-06 | 2.41E-03 | 6.32E-06 | 1.20E-03 | 2.53E-06 | 3.36E-05 | 2.33E-07 |
| 562133 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562134 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562135 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562136 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562137 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562138 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562139 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562140 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562141 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562142 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562143 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562144 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562145 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562146 | 7.90E-03 | 6.39E-06 | 7.85E-03 | 6.39E-06 | 4.67E-03 | 2.57E-06 | 1.31E-04 | 2.34E-07 |
| 562147 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562148 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562149 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562150 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562151 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562152 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562153 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562154 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562155 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 562156 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 563128 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 563129 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 563130 | 7.80E-03 | 6.39E-06 | 7.80E-03 | 6.39E-06 | 4.65E-03 | 2.57E-06 | 1.30E-04 | 2.34E-07 |
| 563131 | 7.80E-03 | 6.42E-06 | 7.80E-03 | 6.42E-06 | 4.65E-03 | 2.58E-06 | 1.30E-04 | 2.34E-07 |
| 563132 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563133 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563134 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563135 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563136 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563137 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563138 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563139 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 563140 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563141 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563142 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563143 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563144 | 1.14E-02 | 6.42E-06 | 1.13E-02 | 6.42E-06 | 4.70E-03 | 2.58E-06 | 1.33E-04 | 2.34E-07 |
| 563145 | 1.17E-02 | 6.42E-06 | 1.14E-02 | 6.42E-06 | 4.74E-03 | 2.58E-06 | 1.35E-04 | 2.34E-07 |
| 563146 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563147 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563148 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563149 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563150 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563151 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563152 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563153 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563154 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563155 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 563156 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564128 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564129 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564130 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564131 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564132 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564133 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564134 | 1.11E-02 | 6.42E-06 | 1.11E-02 | 6.42E-06 | 4.67E-03 | 2.58E-06 | 1.31E-04 | 2.34E-07 |
| 564135 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564136 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564137 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564138 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564139 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564140 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564141 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564142 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564143 | 1.20E-02 | 4.37E-04 | 1.15E-02 | 4.37E-04 | 4.78E-03 | 4.61E-05 | 1.37E-04 | 3.03E-06 |
| 564144 | 1.24E-02 | 6.49E-06 | 1.18E-02 | 6.49E-06 | 4.84E-03 | 2.60E-06 | 1.41E-04 | 2.37E-07 |
| 564145 | 1.33E-02 | 6.49E-06 | 1.22E-02 | 6.49E-06 | 4.95E-03 | 2.60E-06 | 1.47E-04 | 2.37E-07 |
| 564146 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564147 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564148 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564149 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564150 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564151 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564152 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564153 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564154 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564155 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 564156 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 565128 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 565129 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 565130 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.67E-03 | 2.60E-06 | 1.31E-04 | 2.37E-07 |
| 565131 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.68E-03 | 2.60E-06 | 1.32E-04 | 2.37E-07 |
| 565132 | 1.11E-02 | 6.49E-06 | 1.11E-02 | 6.49E-06 | 4.69E-03 | 2.60E-06 | 1.32E-04 | 2.37E-07 |
| 565133 | 1.11E-02 | 5.69E-02 | 1.11E-02 | 5.69E-02 | 4.69E-03 | 1.90E-02 | 1.32E-04 | 1.23E-03 |
| 565134 | 3.76E-02 | 4.20E-05 | 3.76E-02 | 4.20E-05 | 2.16E-02 | 1.43E-05 | 6.04E-04 | 1.29E-06 |
| 565135 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565136 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565137 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565138 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565139 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565140 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565141 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565142 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565143 | 4.18E-02 | 4.05E-04 | 3.97E-02 | 4.05E-04 | 2.21E-02 | 5.10E-05 | 6.35E-04 | 3.64E-06 |
| 565144 | 6.51E-02 | 2.35E-03 | 6.26E-02 | 2.35E-03 | 2.45E-02 | 3.69E-04 | 1.07E-03 | 2.42E-05 |
| 565145 | 4.34E-02 | 1.52E-02 | 4.06E-02 | 1.52E-02 | 2.23E-02 | 2.40E-03 | 6.48E-04 | 1.55E-04 |
| 565146 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565147 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565148 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565149 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565150 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565151 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565152 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565153 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565154 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565155 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 565156 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 566128 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 566129 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 566130 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 566131 | 3.76E-02 | 3.35E-05 | 3.76E-02 | 3.35E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 566132 | 3.76E-02 | 3.36E-05 | 3.76E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.04E-04 | 1.23E-06 |
| 566133 | 6.13E-02 | 3.48E-01 | 6.13E-02 | 3.48E-01 | 2.16E-02 | 1.24E-01 | 6.10E-04 | 7.99E-03 |
| 566134 | 6.14E-02 | 1.00E+00 | 6.14E-02 | 1.00E+00 | 2.17E-02 | 1.00E+00 | 6.11E-04 | 8.41E-02 |
| 566135 | 2.93E+00 | 1.00E+00 | 2.93E+00 | 1.00E+00 | 4.19E-01 | 1.00E+00 | 6.09E-02 | 6.73E-01 |
| 566136 | 1.02E+01 | 1.00E+00 | 1.02E+01 | 1.00E+00 | 1.92E+00 | 1.00E+00 | 2.24E-01 | 1.00E+00 |
| 566137 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566138 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566139 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566140 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566141 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566142 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566143 | 7.86E-02 | 3.36E-05 | 7.03E-02 | 3.36E-05 | 2.41E-02 | 1.35E-05 | 7.41E-04 | 1.23E-06 |
| 566144 | 7.79E-02 | 3.36E-05 | 6.99E-02 | 3.36E-05 | 2.40E-02 | 1.35E-05 | 7.35E-04 | 1.23E-06 |
| 566145 | 3.02E+00 | 3.36E-05 | 7.58E-01 | 3.36E-05 | 5.62E-02 | 1.35E-05 | 2.54E-03 | 1.23E-06 |
| 566146 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566147 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566148 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 566149 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566150 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566151 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566152 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566153 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566154 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566155 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 566156 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567128 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567129 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567130 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567131 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567132 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567133 | 6.61E-02 | 7.24E-02 | 6.61E-02 | 7.24E-02 | 2.52E-02 | 2.35E-02 | 7.17E-04 | 1.52E-03 |
| 567134 | 6.13E-02 | 1.00E+00 | 6.13E-02 | 1.00E+00 | 2.16E-02 | 1.89E-01 | 6.10E-04 | 1.22E-02 |
| 567135 | 2.90E+02 | 5.96E-03 | 2.78E+02 | 5.96E-03 | 2.00E+02 | 2.40E-03 | 6.16E+00 | 1.21E-04 |
| 567136 | 7.39E-01 | 9.85E-01 | 5.25E-01 | 9.59E-01 | 1.10E-01 | 4.01E-01 | 8.44E-03 | 2.59E-02 |
| 567137 | 6.13E-02 | 4.96E-01 | 6.13E-02 | 4.96E-01 | 2.16E-02 | 1.61E-01 | 6.10E-04 | 1.04E-02 |
| 567138 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567139 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567140 | 9.01E-02 | 3.36E-05 | 7.64E-02 | 3.36E-05 | 2.57E-02 | 1.35E-05 | 8.28E-04 | 1.23E-06 |
| 567141 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567142 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567143 | 1.76E+00 | 3.51E-05 | 4.77E-01 | 3.49E-05 | 4.78E-02 | 1.38E-05 | 2.05E-03 | 1.26E-06 |
| 567144 | 2.57E+00 | 3.45E-05 | 6.61E-01 | 3.44E-05 | 5.49E-02 | 1.37E-05 | 2.45E-03 | 1.25E-06 |
| 567145 | 3.54E+00 | 3.40E-05 | 8.83E-01 | 3.39E-05 | 6.38E-02 | 1.36E-05 | 2.96E-03 | 1.24E-06 |
| 567146 | 4.65E+00 | 3.38E-05 | 1.14E+00 | 3.38E-05 | 7.45E-02 | 1.35E-05 | 3.56E-03 | 1.24E-06 |
| 567147 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567148 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567149 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567150 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567151 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567152 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567153 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567154 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567155 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 567156 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568128 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568129 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568130 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568131 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568132 | 7.97E-02 | 3.82E-05 | 7.97E-02 | 3.82E-05 | 3.52E-02 | 1.63E-05 | 1.02E-03 | 1.35E-06 |
| 568133 | 1.61E-01 | 4.96E-03 | 1.51E-01 | 4.18E-03 | 6.56E-02 | 1.08E-03 | 2.22E-03 | 7.63E-05 |
| 568134 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568135 | 2.09E+02 | 4.56E-03 | 2.06E+02 | 4.56E-03 | 1.51E+02 | 1.84E-03 | 4.63E+00 | 9.33E-05 |
| 568136 | 9.20E+01 | 1.86E-03 | 8.70E+01 | 1.86E-03 | 6.21E+01 | 7.51E-04 | 1.92E+00 | 3.83E-05 |
| 568137 | 7.96E+00 | 3.36E-05 | 4.12E+00 | 3.36E-05 | 1.05E+00 | 1.35E-05 | 5.80E-02 | 1.23E-06 |
| 568138 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 568139 | 1.50E-01 | 3.36E-05 | 1.08E-01 | 3.36E-05 | 3.41E-02 | 1.35E-05 | 1.28E-03 | 1.23E-06 |
| 568140 | 5.31E-01 | 4.37E-05 | 2.14E-01 | 4.20E-05 | 4.63E-02 | 1.57E-05 | 1.93E-03 | 1.39E-06 |
| 568141 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568142 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568143 | 2.08E+00 | 4.28E-05 | 5.71E-01 | 4.13E-05 | 6.16E-02 | 1.55E-05 | 2.75E-03 | 1.37E-06 |
| 568144 | 2.93E+00 | 3.88E-05 | 7.56E-01 | 3.79E-05 | 6.40E-02 | 1.46E-05 | 2.93E-03 | 1.31E-06 |
| 568145 | 3.97E+00 | 3.56E-05 | 9.89E-01 | 3.52E-05 | 7.06E-02 | 1.39E-05 | 3.33E-03 | 1.26E-06 |
| 568146 | 5.15E+00 | 1.30E-04 | 1.26E+00 | 1.30E-04 | 8.05E-02 | 2.31E-05 | 3.90E-03 | 1.86E-06 |
| 568147 | 6.40E+00 | 3.40E-05 | 1.55E+00 | 3.39E-05 | 9.32E-02 | 1.36E-05 | 4.61E-03 | 1.24E-06 |
| 568148 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568149 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568150 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568151 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568152 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568153 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568154 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568155 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 568156 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569128 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569129 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569130 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569131 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569132 | 8.79E-02 | 4.03E-05 | 8.79E-02 | 4.03E-05 | 4.12E-02 | 1.75E-05 | 1.21E-03 | 1.40E-06 |
| 569133 | 1.20E+00 | 7.78E-02 | 1.04E+00 | 6.62E-02 | 3.70E-01 | 1.79E-02 | 1.59E-02 | 1.28E-03 |
| 569134 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569135 | 9.82E+01 | 2.25E-03 | 9.71E+01 | 2.21E-03 | 7.17E+01 | 8.86E-04 | 2.19E+00 | 4.53E-05 |
| 569136 | 2.17E+02 | 4.25E-03 | 2.03E+02 | 4.25E-03 | 1.44E+02 | 1.72E-03 | 4.47E+00 | 8.71E-05 |
| 569137 | 1.60E+01 | 6.89E-05 | 9.01E+00 | 6.89E-05 | 3.06E+00 | 2.79E-05 | 1.40E-01 | 1.95E-06 |
| 569138 | 3.90E-01 | 1.14E-04 | 3.53E-01 | 1.02E-04 | 2.30E-01 | 3.18E-05 | 7.00E-03 | 2.47E-06 |
| 569139 | 6.74E-01 | 1.05E-04 | 3.47E-01 | 9.31E-05 | 9.89E-02 | 2.88E-05 | 4.47E-03 | 2.31E-06 |
| 569140 | 6.13E-02 | 1.67E-04 | 6.13E-02 | 1.67E-04 | 2.16E-02 | 2.66E-05 | 6.10E-04 | 2.09E-06 |
| 569141 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569142 | 1.71E+00 | 6.83E-05 | 5.56E-01 | 6.27E-05 | 9.74E-02 | 2.10E-05 | 4.34E-03 | 1.76E-06 |
| 569143 | 2.32E+00 | 6.66E-05 | 6.51E-01 | 6.12E-05 | 7.64E-02 | 2.06E-05 | 3.46E-03 | 1.73E-06 |
| 569144 | 3.19E+00 | 5.07E-05 | 8.25E-01 | 4.79E-05 | 7.07E-02 | 1.72E-05 | 3.28E-03 | 1.49E-06 |
| 569145 | 4.13E+00 | 3.97E-05 | 1.03E+00 | 3.87E-05 | 7.25E-02 | 1.48E-05 | 3.44E-03 | 1.32E-06 |
| 569146 | 7.65E+00 | 2.99E-03 | 3.51E+00 | 2.99E-03 | 4.05E-01 | 4.94E-04 | 5.07E-02 | 3.23E-05 |
| 569147 | 6.62E+00 | 4.92E-02 | 1.59E+00 | 4.92E-02 | 9.51E-02 | 8.75E-03 | 4.72E-03 | 5.64E-04 |
| 569148 | 7.94E+00 | 3.42E-05 | 1.91E+00 | 3.41E-05 | 1.09E-01 | 1.36E-05 | 5.51E-03 | 1.24E-06 |
| 569149 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569150 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569151 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569152 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569153 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569154 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569155 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 569156 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 570057 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 570067 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 570077 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 570087 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 570097 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 570107 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 570117 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 570128 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 570129 | 8.77E+00 | 3.36E-05 | 2.10E+00 | 3.36E-05 | 1.18E-01 | 1.35E-05 | 6.01E-03 | 1.23E-06 |
| 570130 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 570131 | 6.13E-02 | 3.36E-05 | 6.13E-02 | 3.36E-05 | 2.16E-02 | 1.35E-05 | 6.10E-04 | 1.23E-06 |
| 570132 | 7.92E-02 | 3.81E-05 | 7.92E-02 | 3.81E-05 | 3.48E-02 | 1.62E-05 | 1.01E-03 | 1.35E-06 |
| 570133 | 1.60E+00 | 1.03E-01 | 1.39E+00 | 8.84E-02 | 4.82E-01 | 2.44E-02 | 2.10E-02 | 1.76E-03 |
| 570134 | 7.11E-01 | 4.67E-02 | 6.19E-01 | 3.96E-02 | 2.14E-01 | 1.05E-02 | 9.16E-03 | 7.47E-04 |
| 570135 | 3.02E+01 | 8.18E-04 | 3.00E+01 | 7.54E-04 | 2.22E+01 | 2.92E-04 | 6.77E-01 | 1.55E-05 |
| 570136 | 1.12E+02 | 2.71E-03 | 1.03E+02 | 2.59E-03 | 7.23E+01 | 9.74E-04 | 2.25E+00 | 5.18E-05 |
| 570137 | 2.27E+01 | 7.42E-04 | 1.61E+01 | 6.58E-04 | 8.56E+00 | 2.04E-04 | 3.05E-01 | 1.30E-05 |
| 570138 | 8.16E+00 | 5.27E-04 | 5.30E+00 | 4.53E-04 | 2.44E+00 | 1.28E-04 | 9.35E-02 | 8.94E-06 |
| 570139 | 3.28E+00 | 3.77E-04 | 1.90E+00 | 3.22E-04 | 7.11E-01 | 8.89E-05 | 3.03E-02 | 6.47E-06 |
| 570140 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570141 | 1.69E+00 | 1.77E-04 | 7.22E-01 | 1.53E-04 | 1.87E-01 | 4.43E-05 | 8.51E-03 | 3.39E-06 |
| 570142 | 2.02E+00 | 3.52E-03 | 8.23E-01 | 2.96E-03 | 1.76E-01 | 7.64E-04 | 7.29E-03 | 5.42E-05 |
| 570143 | 2.31E+00 | 1.04E-04 | 6.53E-01 | 9.25E-05 | 7.92E-02 | 2.86E-05 | 3.60E-03 | 2.31E-06 |
| 570144 | 3.15E+00 | 7.12E-05 | 8.10E-01 | 6.50E-05 | 6.82E-02 | 2.16E-05 | 3.16E-03 | 1.81E-06 |
| 570145 | 4.21E+00 | 4.67E-05 | 1.04E+00 | 4.46E-05 | 7.17E-02 | 1.63E-05 | 3.40E-03 | 1.43E-06 |
| 570146 | 5.43E+00 | 3.98E-05 | 1.32E+00 | 3.88E-05 | 8.25E-02 | 1.48E-05 | 4.01E-03 | 1.33E-06 |
| 570147 | 6.72E+00 | 3.68E-05 | 1.62E+00 | 3.63E-05 | 9.59E-02 | 1.42E-05 | 4.77E-03 | 1.29E-06 |
| 570148 | 8.00E+00 | 3.53E-05 | 1.92E+00 | 3.51E-05 | 1.10E-01 | 1.39E-05 | 5.54E-03 | 1.26E-06 |
| 570149 | 9.27E+00 | 3.48E-05 | 2.22E+00 | 3.46E-05 | 1.24E-01 | 1.38E-05 | 6.32E-03 | 1.26E-06 |
| 570150 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570151 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570152 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570153 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570154 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570155 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570156 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 570157 | 2.54E-04 | 7.02E-08 | 2.54E-04 | 7.02E-08 | 1.51E-04 | 2.79E-08 | 4.22E-06 | 2.47E-09 |
| 570167 | 2.54E-04 | 6.99E-08 | 2.54E-04 | 6.99E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 570177 | 2.54E-04 | 6.99E-08 | 2.54E-04 | 6.99E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 570187 | 2.54E-04 | 6.99E-08 | 2.54E-04 | 6.99E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 570197 | 2.54E-04 | 6.99E-08 | 2.54E-04 | 6.99E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 570207 | 2.54E-04 | 6.98E-08 | 2.54E-04 | 6.98E-08 | 1.51E-04 | 2.78E-08 | 4.22E-06 | 2.47E-09 |
| 571128 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 571129 | 2.50E+02 | 3.40E-05 | 5.87E+01 | 3.40E-05 | 2.79E+00 | 1.36E-05 | 1.56E-01 | 1.24E-06 |
| 571130 | 3.60E+02 | 3.40E-05 | 8.45E+01 | 3.40E-05 | 4.01E+00 | 1.36E-05 | 2.24E-01 | 1.24E-06 |
| 571131 | 6.13E-02 | 3.40E-05 | 6.13E-02 | 3.40E-05 | 2.16E-02 | 1.36E-05 | 6.10E-04 | 1.24E-06 |
| 571132 | 6.68E-02 | 3.54E-05 | 6.68E-02 | 3.54E-05 | 2.57E-02 | 1.44E-05 | 7.33E-04 | 1.28E-06 |
| 571133 | 1.13E+00 | 7.46E-02 | 9.83E-01 | 6.34E-02 | 3.41E-01 | 1.71E-02 | 1.48E-02 | 1.22E-03 |
| 571134 | 8.80E-01 | 5.83E-02 | 7.65E-01 | 4.94E-02 | 2.65E-01 | 1.32E-02 | 1.14E-02 | 9.43E-04 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 571135 | 9.33E+00 | 2.19E-02 | 9.25E+00 | 1.85E-02 | 6.73E+00 | 4.87E-03 | 2.07E-01 | 3.42E-04 |
| 571136 | 2.32E+01 | 3.53E-03 | 1.97E+01 | 2.99E-03 | 1.28E+01 | 8.22E-04 | 4.12E-01 | 5.54E-05 |
| 571137 | 1.77E+01 | 2.52E-03 | 1.33E+01 | 2.15E-03 | 7.53E+00 | 5.83E-04 | 2.59E-01 | 3.98E-05 |
| 571138 | 1.01E+01 | 1.63E-03 | 6.83E+00 | 1.38E-03 | 3.37E+00 | 3.70E-04 | 1.25E-01 | 2.58E-05 |
| 571139 | 5.05E+00 | 9.53E-04 | 3.09E+00 | 8.05E-04 | 1.31E+00 | 2.15E-04 | 5.24E-02 | 1.52E-05 |
| 571140 | 6.37E+00 | 6.25E-03 | 5.00E+00 | 5.30E-03 | 1.42E+00 | 1.41E-03 | 5.13E-02 | 9.86E-05 |
| 571141 | 5.53E+00 | 8.81E-03 | 4.53E+00 | 7.39E-03 | 1.12E+00 | 1.90E-03 | 3.80E-02 | 1.35E-04 |
| 571142 | 4.20E+00 | 8.99E-03 | 2.95E+00 | 7.55E-03 | 6.75E-01 | 1.94E-03 | 2.39E-02 | 1.37E-04 |
| 571143 | 2.76E+00 | 5.46E-03 | 1.15E+00 | 4.58E-03 | 2.02E-01 | 1.18E-03 | 7.58E-03 | 8.36E-05 |
| 571144 | 3.09E+00 | 2.31E-03 | 8.24E-01 | 1.93E-03 | 7.64E-02 | 5.02E-04 | 3.38E-03 | 3.57E-05 |
| 571145 | 4.12E+00 | 8.25E-04 | 1.04E+00 | 6.97E-04 | 7.77E-02 | 1.84E-04 | 3.69E-03 | 1.32E-05 |
| 571146 | 5.28E+00 | 4.39E-05 | 1.30E+00 | 4.22E-05 | 8.40E-02 | 1.57E-05 | 4.09E-03 | 1.39E-06 |
| 571147 | 6.51E+00 | 3.92E-05 | 1.58E+00 | 3.84E-05 | 9.60E-02 | 1.47E-05 | 4.77E-03 | 1.32E-06 |
| 571148 | 7.78E+00 | 1.00E+00 | 1.87E+00 | 1.00E+00 | 1.08E-01 | 1.00E+00 | 5.44E-03 | 1.00E+00 |
| 571149 | 9.00E+00 | 1.00E+00 | 2.15E+00 | 1.00E+00 | 1.21E-01 | 1.00E+00 | 6.16E-03 | 1.00E+00 |
| 571150 | 8.94E+00 | 3.47E-05 | 2.14E+00 | 3.46E-05 | 1.20E-01 | 1.38E-05 | 6.11E-03 | 1.26E-06 |
| 571151 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 571152 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 571153 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 571154 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 571155 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 571156 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 572128 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 572129 | 1.20E+03 | 3.40E-05 | 2.81E+02 | 3.40E-05 | 1.33E+01 | 1.36E-05 | 7.44E-01 | 1.24E-06 |
| 572130 | 1.62E+03 | 3.40E-05 | 3.80E+02 | 3.40E-05 | 1.80E+01 | 1.36E-05 | 1.00E+00 | 1.24E-06 |
| 572131 | 1.40E+03 | 3.40E-05 | 3.29E+02 | 3.40E-05 | 1.56E+01 | 1.36E-05 | 8.71E-01 | 1.24E-06 |
| 572132 | 6.29E-02 | 3.44E-05 | 6.29E-02 | 3.44E-05 | 2.28E-02 | 1.38E-05 | 6.45E-04 | 1.25E-06 |
| 572133 | 4.47E-01 | 2.82E-02 | 3.93E-01 | 2.38E-02 | 1.37E-01 | 6.27E-03 | 5.71E-03 | 4.42E-04 |
| 572134 | 6.78E-01 | 4.45E-02 | 5.91E-01 | 3.76E-02 | 2.04E-01 | 1.00E-02 | 8.74E-03 | 7.10E-04 |
| 572135 | 4.44E-01 | 2.83E-02 | 3.90E-01 | 2.39E-02 | 1.34E-01 | 6.27E-03 | 5.64E-03 | 4.43E-04 |
| 572136 | 1.36E+00 | 9.22E-03 | 1.33E+00 | 7.73E-03 | 9.25E-01 | 1.99E-03 | 2.86E-02 | 1.41E-04 |
| 572137 | 4.68E+00 | 5.22E-03 | 3.25E+00 | 4.38E-03 | 1.64E+00 | 1.13E-03 | 5.96E-02 | 8.01E-05 |
| 572138 | 4.74E+00 | 2.79E-03 | 3.07E+00 | 2.35E-03 | 1.40E+00 | 6.12E-04 | 5.39E-02 | 4.32E-05 |
| 572139 | 9.28E+01 | 6.01E-03 | 9.11E+01 | 5.05E-03 | 2.23E+01 | 1.30E-03 | 6.91E-01 | 9.21E-05 |
| 572140 | 4.85E+01 | 1.15E-02 | 4.62E+01 | 9.80E-03 | 1.12E+01 | 2.52E-03 | 3.61E-01 | 1.78E-04 |
| 572141 | 1.47E+01 | 1.19E-02 | 1.34E+01 | 1.01E-02 | 3.23E+00 | 2.61E-03 | 1.06E-01 | 1.85E-04 |
| 572142 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 572143 | 2.88E+00 | 6.74E-03 | 1.36E+00 | 5.66E-03 | 2.55E-01 | 1.46E-03 | 9.13E-03 | 1.03E-04 |
| 572144 | 2.97E+00 | 3.79E-03 | 8.59E-01 | 3.19E-03 | 9.50E-02 | 8.23E-04 | 4.00E-03 | 5.84E-05 |
| 572145 | 3.87E+00 | 1.75E-03 | 1.00E+00 | 1.48E-03 | 8.17E-02 | 3.85E-04 | 3.83E-03 | 2.75E-05 |
| 572146 | 4.96E+00 | 6.96E-04 | 1.25E+00 | 5.89E-04 | 9.07E-02 | 1.56E-04 | 4.43E-03 | 1.13E-05 |
| 572147 | 6.00E+00 | 2.76E-04 | 1.50E+00 | 2.37E-04 | 1.02E-01 | 6.58E-05 | 5.07E-03 | 4.93E-06 |
| 572148 | 7.14E+00 | 3.91E-05 | 1.74E+00 | 3.83E-05 | 1.08E-01 | 1.47E-05 | 5.42E-03 | 1.32E-06 |
| 572149 | 8.27E+00 | 3.56E-05 | 1.98E+00 | 3.53E-05 | 1.13E-01 | 1.40E-05 | 5.73E-03 | 1.27E-06 |
| 572150 | 8.44E+00 | 4.65E-04 | 2.02E+00 | 4.64E-04 | 1.15E-01 | 5.72E-05 | 5.84E-03 | 4.05E-06 |
| 572151 | 8.00E+00 | 3.43E-05 | 1.92E+00 | 3.43E-05 | 1.10E-01 | 1.37E-05 | 5.54E-03 | 1.25E-06 |
| 572152 | 6.15E-02 | 3.41E-05 | 6.15E-02 | 3.41E-05 | 2.17E-02 | 1.36E-05 | 6.14E-04 | 1.25E-06 |
| 572153 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 572154 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 572155 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 572156 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 573128 | 6.14E-02 | 3.40E-05 | 6.14E-02 | 3.40E-05 | 2.17E-02 | 1.36E-05 | 6.12E-04 | 1.24E-06 |
| 573129 | 2.75E+03 | 3.40E-05 | 6.45E+02 | 3.40E-05 | 3.05E+01 | 1.36E-05 | 1.71E+00 | 1.24E-06 |
| 573130 | 3.64E+03 | 3.40E-05 | 8.53E+02 | 3.40E-05 | 4.03E+01 | 1.36E-05 | 2.26E+00 | 1.24E-06 |
| 573131 | 3.38E+03 | 3.40E-05 | 7.92E+02 | 3.40E-05 | 3.75E+01 | 1.36E-05 | 2.09E+00 | 1.24E-06 |
| 573132 | 6.18E-02 | 3.41E-05 | 6.18E-02 | 3.41E-05 | 2.20E-02 | 1.37E-05 | 6.20E-04 | 1.25E-06 |
| 573133 | 1.56E-01 | 7.13E-03 | 1.43E-01 | 5.99E-03 | 5.02E-02 | 1.55E-03 | 1.87E-03 | 1.10E-04 |
| 573134 | 3.13E+00 | 1.00E+00 | 3.09E+00 | 1.00E+00 | 6.32E-01 | 3.54E-01 | 6.01E-02 | 2.31E-02 |
| 573135 | 3.58E-01 | 2.20E-02 | 3.16E-01 | 1.85E-02 | 1.09E-01 | 4.86E-03 | 4.51E-03 | 3.43E-04 |
| 573136 | 3.19E-01 | 1.00E+00 | 2.95E-01 | 1.00E+00 | 8.85E-02 | 1.00E+00 | 4.61E-03 | 9.86E-02 |
| 573137 | 1.14E+01 | 1.00E+00 | 1.13E+01 | 1.00E+00 | 2.22E+00 | 1.00E+00 | 2.46E-01 | 8.82E-02 |
| 573138 | 7.90E+01 | 2.53E-03 | 7.85E+01 | 2.13E-03 | 1.89E+01 | 5.53E-04 | 5.78E-01 | 3.93E-05 |
| 573139 | 4.96E+01 | 3.18E-03 | 4.89E+01 | 2.68E-03 | 1.18E+01 | 6.92E-04 | 3.64E-01 | 4.91E-05 |
| 573140 | 1.01E+01 | 5.40E-03 | 9.54E+00 | 4.53E-03 | 2.33E+00 | 1.17E-03 | 7.36E-02 | 8.27E-05 |
| 573141 | 2.40E+00 | 5.08E-03 | 1.88E+00 | 4.27E-03 | 4.45E-01 | 1.10E-03 | 1.46E-02 | 7.80E-05 |
| 573142 | 6.14E-02 | 3.61E-05 | 6.14E-02 | 3.61E-05 | 2.17E-02 | 1.43E-05 | 6.12E-04 | 1.30E-06 |
| 573143 | 1.98E+00 | 4.56E-03 | 7.45E-01 | 3.84E-03 | 1.20E-01 | 9.89E-04 | 4.97E-03 | 7.00E-05 |
| 573144 | 4.05E+00 | 3.64E-03 | 1.72E+00 | 3.06E-03 | 3.02E-01 | 7.91E-04 | 1.56E-02 | 5.61E-05 |
| 573145 | 3.54E+00 | 2.23E-03 | 1.02E+00 | 1.88E-03 | 1.09E-01 | 4.86E-04 | 5.30E-03 | 3.46E-05 |
| 573146 | 4.24E+00 | 1.32E-03 | 1.06E+00 | 1.11E-03 | 7.40E-02 | 2.89E-04 | 3.46E-03 | 2.08E-05 |
| 573147 | 5.29E+00 | 4.74E-04 | 1.29E+00 | 4.03E-04 | 8.20E-02 | 1.09E-04 | 3.96E-03 | 7.96E-06 |
| 573148 | 6.34E+00 | 1.29E-04 | 1.54E+00 | 1.14E-04 | 9.38E-02 | 3.44E-05 | 4.64E-03 | 2.71E-06 |
| 573149 | 7.40E+00 | 3.80E-05 | 1.79E+00 | 3.76E-05 | 1.05E-01 | 1.47E-05 | 5.25E-03 | 1.33E-06 |
| 573150 | 7.69E+00 | 3.97E-05 | 1.87E+00 | 3.91E-05 | 1.13E-01 | 1.51E-05 | 5.73E-03 | 1.36E-06 |
| 573151 | 7.31E+00 | 8.27E-04 | 1.78E+00 | 8.27E-04 | 1.06E-01 | 1.16E-04 | 5.60E-03 | 7.86E-06 |
| 573152 | 6.37E-02 | 3.46E-03 | 6.33E-02 | 3.46E-03 | 2.22E-02 | 4.24E-04 | 6.39E-04 | 2.79E-05 |
| 573153 | 6.18E-02 | 3.62E-05 | 6.17E-02 | 3.62E-05 | 2.18E-02 | 1.43E-05 | 6.18E-04 | 1.31E-06 |
| 573154 | 6.14E-02 | 3.61E-05 | 6.14E-02 | 3.61E-05 | 2.17E-02 | 1.43E-05 | 6.12E-04 | 1.30E-06 |
| 573155 | 6.14E-02 | 3.61E-05 | 6.14E-02 | 3.61E-05 | 2.17E-02 | 1.43E-05 | 6.12E-04 | 1.30E-06 |
| 573156 | 6.14E-02 | 3.61E-05 | 6.14E-02 | 3.61E-05 | 2.17E-02 | 1.43E-05 | 6.12E-04 | 1.30E-06 |
| 574128 | 6.14E-02 | 3.61E-05 | 6.14E-02 | 3.61E-05 | 2.17E-02 | 1.43E-05 | 6.12E-04 | 1.30E-06 |
| 574129 | 4.22E+03 | 3.61E-05 | 9.88E+02 | 3.61E-05 | 4.67E+01 | 1.43E-05 | 2.61E+00 | 1.30E-06 |
| 574130 | 5.72E+03 | 3.61E-05 | 1.34E+03 | 3.61E-05 | 6.33E+01 | 1.43E-05 | 3.54E+00 | 1.30E-06 |
| 574131 | 5.61E+03 | 3.61E-05 | 1.31E+03 | 3.61E-05 | 6.21E+01 | 1.43E-05 | 3.47E+00 | 1.30E-06 |
| 574132 | 4.14E+03 | 3.61E-05 | 9.70E+02 | 3.61E-05 | 4.59E+01 | 1.43E-05 | 2.57E+00 | 1.30E-06 |
| 574133 | 6.18E-02 | 3.62E-05 | 6.18E-02 | 3.62E-05 | 2.20E-02 | 1.44E-05 | 6.21E-04 | 1.31E-06 |
| 574134 | 1.46E-01 | 6.39E-03 | 1.34E-01 | 5.38E-03 | 4.70E-02 | 1.39E-03 | 1.73E-03 | 9.81E-05 |
| 574135 | 2.05E-01 | 2.50E-01 | 1.85E-01 | 2.48E-01 | 6.44E-02 | 1.06E-01 | 2.51E-03 | 6.89E-03 |
| 574136 | 9.15E-01 | 9.61E-01 | 6.42E-01 | 9.60E-01 | 2.19E-01 | 5.32E-01 | 1.28E-02 | 3.43E-02 |
| 574137 | 9.51E-02 | 2.53E-03 | 9.05E-02 | 2.13E-03 | 3.19E-02 | 5.53E-04 | 1.06E-03 | 3.93E-05 |
| 574138 | 7.64E-02 | 1.11E-03 | 7.44E-02 | 9.42E-04 | 2.64E-02 | 2.47E-04 | 8.13E-04 | 1.77E-05 |
| 574139 | 6.22E-02 | 2.66E-01 | 6.22E-02 | 2.66E-01 | 2.22E-02 | 6.35E-02 | 6.26E-04 | 4.11E-03 |
| 574140 | 2.44E-01 | 2.36E-04 | 1.06E-01 | 2.04E-04 | 2.50E-02 | 5.74E-05 | 7.72E-04 | 4.34E-06 |
| 574141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 574142 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 574143 | 1.34E+00 | 2.08E-03 | 3.92E-01 | 1.75E-03 | 4.77E-02 | 4.55E-04 | 1.87E-03 | 3.24E-05 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 574144 | 2.13E+00 | 2.28E-03 | 6.25E-01 | 1.92E-03 | 7.31E-02 | 4.97E-04 | 3.26E-03 | 3.53E-05 |
| 574145 | 3.81E+00 | 2.02E-03 | 1.41E+00 | 1.70E-03 | 2.17E-01 | 4.42E-04 | 1.14E-02 | 3.15E-05 |
| 574146 | 3.61E+00 | 1.29E-03 | 9.13E-01 | 1.09E-03 | 6.93E-02 | 2.84E-04 | 3.18E-03 | 2.04E-05 |
| 574147 | 4.48E+00 | 5.36E-04 | 1.10E+00 | 4.55E-04 | 7.31E-02 | 1.22E-04 | 3.44E-03 | 8.90E-06 |
| 574148 | 5.43E+00 | 1.75E-04 | 1.32E+00 | 1.54E-04 | 8.23E-02 | 4.44E-05 | 3.98E-03 | 3.43E-06 |
| 574149 | 6.39E+00 | 3.69E-05 | 1.54E+00 | 3.68E-05 | 9.24E-02 | 1.45E-05 | 4.55E-03 | 1.32E-06 |
| 574150 | 6.76E+00 | 4.05E-05 | 1.66E+00 | 3.98E-05 | 1.06E-01 | 1.53E-05 | 5.31E-03 | 1.37E-06 |
| 574151 | 6.37E+00 | 4.00E-05 | 1.57E+00 | 3.94E-05 | 1.01E-01 | 1.52E-05 | 5.06E-03 | 1.36E-06 |
| 574152 | 8.72E-02 | 3.06E-03 | 8.23E-02 | 3.06E-03 | 2.72E-02 | 3.40E-04 | 9.01E-04 | 2.24E-05 |
| 574153 | 6.87E-02 | 3.66E-05 | 6.74E-02 | 3.66E-05 | 2.35E-02 | 1.44E-05 | 6.99E-04 | 1.31E-06 |
| 574154 | 6.25E-02 | 3.62E-05 | 6.24E-02 | 3.61E-05 | 2.23E-02 | 1.43E-05 | 6.31E-04 | 1.31E-06 |
| 574155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 574156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 575128 | 3.24E+03 | 3.61E-05 | 7.59E+02 | 3.61E-05 | 3.59E+01 | 1.43E-05 | 2.01E+00 | 1.30E-06 |
| 575129 | 5.20E+03 | 3.61E-05 | 1.22E+03 | 3.61E-05 | 5.76E+01 | 1.43E-05 | 3.22E+00 | 1.30E-06 |
| 575130 | 7.16E+03 | 3.61E-05 | 1.68E+03 | 3.61E-05 | 7.93E+01 | 1.43E-05 | 4.44E+00 | 1.30E-06 |
| 575131 | 7.44E+03 | 3.61E-05 | 1.74E+03 | 3.61E-05 | 8.24E+01 | 1.43E-05 | 4.61E+00 | 1.30E-06 |
| 575132 | 5.99E+03 | 3.61E-05 | 1.40E+03 | 3.61E-05 | 6.64E+01 | 1.43E-05 | 3.72E+00 | 1.30E-06 |
| 575133 | 3.84E+03 | 3.62E-05 | 9.00E+02 | 3.61E-05 | 4.26E+01 | 1.44E-05 | 2.38E+00 | 1.31E-06 |
| 575134 | 6.24E-02 | 3.62E-05 | 6.24E-02 | 3.62E-05 | 2.24E-02 | 1.44E-05 | 6.33E-04 | 1.31E-06 |
| 575135 | 1.42E-01 | 1.00E+00 | 1.42E-01 | 1.00E+00 | 8.01E-02 | 2.31E-01 | 3.25E-03 | 1.50E-02 |
| 575136 | 1.70E-01 | 4.69E-01 | 1.70E-01 | 4.69E-01 | 1.01E-01 | 5.15E-02 | 4.22E-03 | 3.34E-03 |
| 575137 | 6.86E-02 | 2.57E-03 | 6.77E-02 | 2.49E-03 | 2.41E-02 | 1.30E-03 | 7.11E-04 | 8.48E-05 |
| 575138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 575139 | 6.22E-02 | 3.91E-05 | 6.22E-02 | 3.87E-05 | 2.22E-02 | 1.47E-05 | 6.26E-04 | 1.34E-06 |
| 575140 | 6.27E-02 | 7.88E-05 | 6.26E-02 | 7.19E-05 | 2.24E-02 | 2.35E-05 | 6.33E-04 | 1.95E-06 |
| 575141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 575142 | 6.23E-02 | 4.45E-05 | 6.23E-02 | 4.32E-05 | 2.23E-02 | 1.62E-05 | 6.28E-04 | 1.43E-06 |
| 575143 | 7.23E-02 | 6.89E-04 | 7.04E-02 | 5.84E-04 | 2.49E-02 | 1.55E-04 | 7.45E-04 | 1.12E-05 |
| 575144 | 9.74E-02 | 1.05E-03 | 8.41E-02 | 8.86E-04 | 2.81E-02 | 2.33E-04 | 8.99E-04 | 1.67E-05 |
| 575145 | 2.36E+00 | 1.34E-03 | 6.62E-01 | 1.13E-03 | 6.94E-02 | 2.95E-04 | 3.18E-03 | 2.10E-05 |
| 575146 | 2.91E+00 | 1.02E-03 | 7.51E-01 | 8.59E-04 | 6.11E-02 | 2.26E-04 | 2.75E-03 | 1.62E-05 |
| 575147 | 3.67E+00 | 4.70E-04 | 9.09E-01 | 4.01E-04 | 6.39E-02 | 1.08E-04 | 2.94E-03 | 7.91E-06 |
| 575148 | 4.37E+00 | 2.08E-04 | 1.07E+00 | 1.80E-04 | 7.07E-02 | 5.12E-05 | 3.33E-03 | 3.90E-06 |
| 575149 | 5.16E+00 | 8.81E-05 | 1.25E+00 | 7.97E-05 | 7.89E-02 | 2.56E-05 | 3.80E-03 | 2.09E-06 |
| 575150 | 5.68E+00 | 3.73E-05 | 1.38E+00 | 3.71E-05 | 8.66E-02 | 1.46E-05 | 4.22E-03 | 1.32E-06 |
| 575151 | 1.07E+01 | 3.90E-05 | 2.57E+00 | 3.85E-05 | 1.46E-01 | 1.49E-05 | 7.59E-03 | 1.35E-06 |
| 575152 | 1.12E-01 | 3.99E-05 | 1.02E-01 | 3.93E-05 | 3.21E-02 | 1.51E-05 | 1.17E-03 | 1.36E-06 |
| 575153 | 7.81E-02 | 3.74E-05 | 7.50E-02 | 3.71E-05 | 2.54E-02 | 1.46E-05 | 8.02E-04 | 1.32E-06 |
| 575154 | 6.29E-02 | 3.62E-05 | 6.27E-02 | 3.62E-05 | 2.24E-02 | 1.43E-05 | 6.35E-04 | 1.31E-06 |
| 575155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 575156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576126 | 1.62E+03 | 6.03E-13 | 3.80E+02 | 6.03E-13 | 1.80E+01 | 3.58E-13 | 1.00E+00 | 1.52E-14 |
| 576127 | 2.68E+03 | 5.76E-12 | 6.28E+02 | 5.76E-12 | 2.97E+01 | 3.42E-12 | 1.66E+00 | 1.45E-13 |
| 576128 | 4.62E+03 | 3.61E-05 | 1.08E+03 | 3.61E-05 | 5.12E+01 | 1.43E-05 | 2.86E+00 | 1.30E-06 |
| 576129 | 5.52E+03 | 3.61E-05 | 1.29E+03 | 3.61E-05 | 6.11E+01 | 1.43E-05 | 3.42E+00 | 1.30E-06 |
| 576130 | 7.83E+03 | 3.61E-05 | 1.83E+03 | 3.61E-05 | 8.67E+01 | 1.43E-05 | 4.85E+00 | 1.30E-06 |
| 576131 | 8.27E+03 | 3.61E-05 | 1.94E+03 | 3.61E-05 | 9.16E+01 | 1.43E-05 | 5.13E+00 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 576132 | 6.72E+03 | 3.61E-05 | 1.57E+03 | 3.61E-05 | 7.44E+01 | 1.43E-05 | 4.16E+00 | 1.30E-06 |
| 576133 | 4.17E+03 | 3.61E-05 | 9.76E+02 | 3.61E-05 | 4.62E+01 | 1.43E-05 | 2.58E+00 | 1.31E-06 |
| 576134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.23E-02 | 1.43E-05 | 6.28E-04 | 1.30E-06 |
| 576135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.23E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 576136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576142 | 6.22E-02 | 3.65E-05 | 6.22E-02 | 3.64E-05 | 2.22E-02 | 1.44E-05 | 6.26E-04 | 1.31E-06 |
| 576143 | 6.50E-02 | 2.29E-04 | 6.44E-02 | 1.98E-04 | 2.30E-02 | 5.58E-05 | 6.60E-04 | 4.23E-06 |
| 576144 | 7.07E-02 | 4.67E-04 | 6.83E-02 | 3.98E-04 | 2.41E-02 | 1.07E-04 | 7.12E-04 | 7.85E-06 |
| 576145 | 1.17E-01 | 7.02E-04 | 8.88E-02 | 5.95E-04 | 2.80E-02 | 1.58E-04 | 9.18E-04 | 1.14E-05 |
| 576146 | 1.37E-01 | 7.46E-04 | 9.88E-02 | 6.31E-04 | 3.00E-02 | 1.67E-04 | 1.02E-03 | 1.21E-05 |
| 576147 | 1.91E-01 | 4.00E-04 | 1.46E-01 | 3.41E-04 | 4.13E-02 | 9.27E-05 | 1.67E-03 | 6.83E-06 |
| 576148 | 6.62E-02 | 2.11E-04 | 6.51E-02 | 1.83E-04 | 2.31E-02 | 5.20E-05 | 6.67E-04 | 3.96E-06 |
| 576149 | 6.33E-02 | 1.04E-04 | 6.30E-02 | 9.32E-05 | 2.25E-02 | 2.90E-05 | 6.38E-04 | 2.34E-06 |
| 576150 | 4.59E+00 | 6.40E-05 | 1.12E+00 | 5.95E-05 | 7.27E-02 | 2.04E-05 | 3.45E-03 | 1.73E-06 |
| 576151 | 6.84E-02 | 3.67E-05 | 6.71E-02 | 3.66E-05 | 2.35E-02 | 1.44E-05 | 6.94E-04 | 1.31E-06 |
| 576152 | 9.82E-02 | 3.88E-05 | 9.12E-02 | 3.84E-05 | 2.94E-02 | 1.49E-05 | 1.02E-03 | 1.35E-06 |
| 576153 | 7.26E-02 | 3.69E-05 | 7.05E-02 | 3.68E-05 | 2.43E-02 | 1.45E-05 | 7.42E-04 | 1.32E-06 |
| 576154 | 6.27E-02 | 3.62E-05 | 6.26E-02 | 3.62E-05 | 2.23E-02 | 1.43E-05 | 6.33E-04 | 1.31E-06 |
| 576155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 576156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577123 | 8.16E+02 | 0.00E+00 | 1.91E+02 | 0.00E+00 | 9.04E+00 | 0.00E+00 | 5.06E-01 | 0.00E+00 |
| 577124 | 1.24E+03 | 0.00E+00 | 2.90E+02 | 0.00E+00 | 1.37E+01 | 0.00E+00 | 7.67E-01 | 0.00E+00 |
| 577125 | 1.85E+03 | 2.30E-13 | 4.34E+02 | 2.30E-13 | 2.05E+01 | 1.37E-13 | 1.15E+00 | 5.82E-15 |
| 577126 | 2.66E+03 | 2.09E-12 | 6.24E+02 | 2.09E-12 | 2.95E+01 | 1.24E-12 | 1.65E+00 | 5.28E-14 |
| 577127 | 3.63E+03 | 1.46E-11 | 8.50E+02 | 1.46E-11 | 4.02E+01 | 8.66E-12 | 2.25E+00 | 3.69E-13 |
| 577128 | 5.72E+03 | 3.61E-05 | 1.34E+03 | 3.61E-05 | 6.33E+01 | 1.43E-05 | 3.54E+00 | 1.30E-06 |
| 577129 | 6.55E+03 | 3.61E-05 | 1.53E+03 | 3.61E-05 | 7.26E+01 | 1.43E-05 | 4.06E+00 | 1.30E-06 |
| 577130 | 8.10E+03 | 3.61E-05 | 1.90E+03 | 3.61E-05 | 8.98E+01 | 1.43E-05 | 5.02E+00 | 1.30E-06 |
| 577131 | 7.66E+03 | 3.61E-05 | 1.79E+03 | 3.61E-05 | 8.49E+01 | 1.43E-05 | 4.75E+00 | 1.30E-06 |
| 577132 | 5.88E+03 | 3.61E-05 | 1.38E+03 | 3.61E-05 | 6.52E+01 | 1.43E-05 | 3.65E+00 | 1.30E-06 |
| 577133 | 3.52E+03 | 3.61E-05 | 8.26E+02 | 3.61E-05 | 3.91E+01 | 1.43E-05 | 2.18E+00 | 1.30E-06 |
| 577134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.23E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 577135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577142 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577143 | 6.33E-02 | 1.15E-04 | 6.31E-02 | 1.02E-04 | 2.25E-02 | 3.14E-05 | 6.40E-04 | 2.51E-06 |
| 577144 | 6.52E-02 | 2.28E-04 | 6.45E-02 | 1.97E-04 | 2.30E-02 | 5.57E-05 | 6.61E-04 | 4.22E-06 |
| 577145 | 1.12E-01 | 3.57E-04 | 9.28E-02 | 3.05E-04 | 2.93E-02 | 8.35E-05 | 1.01E-03 | 6.18E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 577146 | 8.47E-01 | 4.12E-04 | 5.64E-01 | 3.52E-04 | 1.34E-01 | 9.55E-05 | 6.86E-03 | 7.02E-06 |
| 577147 | 6.19E-01 | 3.31E-04 | 4.23E-01 | 2.83E-04 | 1.03E-01 | 7.78E-05 | 5.12E-03 | 5.79E-06 |
| 577148 | 9.27E-02 | 1.95E-04 | 8.18E-02 | 1.70E-04 | 2.68E-02 | 4.86E-05 | 8.73E-04 | 3.72E-06 |
| 577149 | 6.38E-02 | 1.12E-04 | 6.33E-02 | 9.95E-05 | 2.26E-02 | 3.06E-05 | 6.41E-04 | 2.45E-06 |
| 577150 | 6.29E-02 | 7.07E-05 | 6.26E-02 | 6.51E-05 | 2.24E-02 | 2.18E-05 | 6.32E-04 | 1.83E-06 |
| 577151 | 6.67E-02 | 5.32E-05 | 6.57E-02 | 5.05E-05 | 2.31E-02 | 1.80E-05 | 6.75E-04 | 1.57E-06 |
| 577152 | 1.04E-01 | 9.56E-04 | 1.00E-01 | 9.56E-04 | 2.81E-02 | 1.36E-04 | 1.28E-03 | 9.13E-06 |
| 577153 | 6.59E-02 | 3.64E-05 | 6.52E-02 | 3.64E-05 | 2.30E-02 | 1.44E-05 | 6.69E-04 | 1.31E-06 |
| 577154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 577156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578122 | 8.71E+02 | 1.09E-15 | 2.04E+02 | 1.09E-15 | 9.66E+00 | 6.45E-16 | 5.40E-01 | 2.75E-17 |
| 578123 | 1.30E+03 | 1.00E-14 | 3.04E+02 | 1.00E-14 | 1.44E+01 | 5.95E-15 | 8.05E-01 | 2.53E-16 |
| 578124 | 1.92E+03 | 9.22E-14 | 4.50E+02 | 9.22E-14 | 2.13E+01 | 5.47E-14 | 1.19E+00 | 2.33E-15 |
| 578125 | 2.71E+03 | 7.68E-13 | 6.34E+02 | 7.68E-13 | 3.00E+01 | 4.56E-13 | 1.68E+00 | 1.94E-14 |
| 578126 | 3.32E+03 | 4.92E-12 | 7.79E+02 | 4.92E-12 | 3.68E+01 | 2.92E-12 | 2.06E+00 | 1.24E-13 |
| 578127 | 4.83E+03 | 2.79E-11 | 1.13E+03 | 2.79E-11 | 5.35E+01 | 1.66E-11 | 2.99E+00 | 7.04E-13 |
| 578128 | 6.38E+03 | 3.61E-05 | 1.50E+03 | 3.61E-05 | 7.07E+01 | 1.43E-05 | 3.96E+00 | 1.30E-06 |
| 578129 | 7.99E+03 | 3.61E-05 | 1.87E+03 | 3.61E-05 | 8.86E+01 | 1.43E-05 | 4.95E+00 | 1.30E-06 |
| 578130 | 7.27E+03 | 3.61E-05 | 1.70E+03 | 3.61E-05 | 8.06E+01 | 1.43E-05 | 4.51E+00 | 1.30E-06 |
| 578131 | 6.27E+03 | 3.61E-05 | 1.47E+03 | 3.61E-05 | 6.95E+01 | 1.43E-05 | 3.89E+00 | 1.30E-06 |
| 578132 | 4.57E+03 | 3.61E-05 | 1.07E+03 | 3.61E-05 | 5.06E+01 | 1.43E-05 | 2.83E+00 | 1.30E-06 |
| 578133 | 3.09E+03 | 3.61E-05 | 7.24E+02 | 3.61E-05 | 3.43E+01 | 1.43E-05 | 1.92E+00 | 1.30E-06 |
| 578134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578142 | 6.22E-02 | 3.75E-05 | 6.22E-02 | 3.72E-05 | 2.22E-02 | 1.46E-05 | 6.26E-04 | 1.32E-06 |
| 578143 | 6.27E-02 | 7.05E-05 | 6.26E-02 | 6.49E-05 | 2.24E-02 | 2.17E-05 | 6.32E-04 | 1.83E-06 |
| 578144 | 6.36E-02 | 1.28E-04 | 6.33E-02 | 1.13E-04 | 2.26E-02 | 3.42E-05 | 6.42E-04 | 2.70E-06 |
| 578145 | 7.22E-02 | 1.98E-04 | 6.88E-02 | 1.71E-04 | 2.39E-02 | 4.92E-05 | 7.12E-04 | 3.76E-06 |
| 578146 | 4.06E-01 | 2.53E-04 | 2.84E-01 | 2.18E-04 | 7.21E-02 | 6.12E-05 | 3.40E-03 | 4.61E-06 |
| 578147 | 9.58E-01 | 2.43E-04 | 6.41E-01 | 2.11E-04 | 1.52E-01 | 5.91E-05 | 7.84E-03 | 4.47E-06 |
| 578148 | 2.30E-01 | 1.87E-04 | 1.70E-01 | 1.64E-04 | 4.65E-02 | 4.70E-05 | 1.98E-03 | 3.61E-06 |
| 578149 | 6.56E-02 | 1.24E-04 | 6.44E-02 | 1.10E-04 | 2.28E-02 | 3.32E-05 | 6.56E-04 | 2.64E-06 |
| 578150 | 6.30E-02 | 7.73E-05 | 6.27E-02 | 7.07E-05 | 2.24E-02 | 2.32E-05 | 6.34E-04 | 1.93E-06 |
| 578151 | 6.36E-02 | 5.51E-05 | 6.32E-02 | 5.22E-05 | 2.25E-02 | 1.84E-05 | 6.41E-04 | 1.59E-06 |
| 578152 | 6.82E-02 | 1.63E-03 | 6.70E-02 | 1.63E-03 | 2.34E-02 | 2.45E-04 | 6.92E-04 | 1.61E-05 |
| 578153 | 6.31E-02 | 3.62E-05 | 6.29E-02 | 3.62E-05 | 2.24E-02 | 1.43E-05 | 6.38E-04 | 1.31E-06 |
| 578154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 578156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579121 | 8.55E+02 | 6.34E-16 | 2.00E+02 | 6.34E-16 | 9.47E+00 | 3.76E-16 | 5.30E-01 | 1.60E-17 |
| 579122 | 1.28E+03 | 5.11E-15 | 3.00E+02 | 5.11E-15 | 1.42E+01 | 3.03E-15 | 7.95E-01 | 1.29E-16 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 579123 | 1.83E+03 | 4.15E-14 | 4.28E+02 | 4.15E-14 | 2.02E+01 | 2.46E-14 | 1.13E+00 | 1.05E-15 |
| 579124 | 2.55E+03 | 2.76E-13 | 5.98E+02 | 2.76E-13 | 2.83E+01 | 1.64E-13 | 1.58E+00 | 6.96E-15 |
| 579125 | 3.50E+03 | 1.55E-12 | 8.19E+02 | 1.55E-12 | 3.87E+01 | 9.21E-13 | 2.17E+00 | 3.92E-14 |
| 579126 | 4.00E+03 | 3.28E-11 | 9.37E+02 | 2.90E-11 | 4.43E+01 | 1.03E-11 | 2.48E+00 | 5.87E-13 |
| 579127 | 5.52E+03 | 3.52E-11 | 1.29E+03 | 3.52E-11 | 6.11E+01 | 2.09E-11 | 3.42E+00 | 8.89E-13 |
| 579128 | 6.88E+03 | 3.61E-05 | 1.61E+03 | 3.61E-05 | 7.63E+01 | 1.43E-05 | 4.27E+00 | 1.30E-06 |
| 579129 | 7.77E+03 | 3.61E-05 | 1.82E+03 | 3.61E-05 | 8.61E+01 | 1.43E-05 | 4.82E+00 | 1.30E-06 |
| 579130 | 7.71E+03 | 5.25E-05 | 1.81E+03 | 5.25E-05 | 8.55E+01 | 2.26E-05 | 4.78E+00 | 1.68E-06 |
| 579131 | 6.44E+03 | 3.61E-05 | 1.51E+03 | 3.61E-05 | 7.13E+01 | 1.43E-05 | 3.99E+00 | 1.30E-06 |
| 579132 | 4.48E+03 | 3.61E-05 | 1.05E+03 | 3.61E-05 | 4.97E+01 | 1.43E-05 | 2.78E+00 | 1.30E-06 |
| 579133 | 2.53E+03 | 3.61E-05 | 5.92E+02 | 3.61E-05 | 2.80E+01 | 1.43E-05 | 1.57E+00 | 1.30E-06 |
| 579134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579142 | 6.29E-02 | 6.20E-05 | 6.25E-02 | 5.79E-05 | 2.23E-02 | 1.99E-05 | 6.31E-04 | 1.70E-06 |
| 579143 | 6.31E-02 | 7.54E-05 | 6.27E-02 | 6.91E-05 | 2.24E-02 | 2.28E-05 | 6.33E-04 | 1.90E-06 |
| 579144 | 6.29E-02 | 7.96E-05 | 6.27E-02 | 7.26E-05 | 2.24E-02 | 2.37E-05 | 6.34E-04 | 1.97E-06 |
| 579145 | 6.47E-02 | 1.21E-04 | 6.39E-02 | 1.08E-04 | 2.27E-02 | 3.27E-05 | 6.49E-04 | 2.60E-06 |
| 579146 | 2.73E-01 | 1.65E-04 | 1.99E-01 | 1.45E-04 | 5.29E-02 | 4.21E-05 | 2.33E-03 | 3.26E-06 |
| 579147 | 6.69E-01 | 1.95E-04 | 4.55E-01 | 1.69E-04 | 1.10E-01 | 4.84E-05 | 5.54E-03 | 3.71E-06 |
| 579148 | 1.55E-01 | 1.60E-04 | 1.22E-01 | 1.40E-04 | 3.57E-02 | 4.11E-05 | 1.37E-03 | 3.19E-06 |
| 579149 | 6.45E-02 | 1.12E-04 | 6.37E-02 | 9.94E-05 | 2.27E-02 | 3.06E-05 | 6.47E-04 | 2.45E-06 |
| 579150 | 6.29E-02 | 7.45E-05 | 6.27E-02 | 6.84E-05 | 2.24E-02 | 2.26E-05 | 6.33E-04 | 1.89E-06 |
| 579151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 579156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580057 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 580067 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 580077 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 580087 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 580097 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 580107 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 580120 | 8.21E+02 | 4.15E-16 | 1.92E+02 | 4.15E-16 | 9.10E+00 | 2.46E-16 | 5.09E-01 | 1.05E-17 |
| 580121 | 1.19E+03 | 2.33E-15 | 2.78E+02 | 2.33E-15 | 1.32E+01 | 1.38E-15 | 7.36E-01 | 5.88E-17 |
| 580122 | 1.66E+03 | 1.42E-14 | 3.89E+02 | 1.42E-14 | 1.84E+01 | 8.41E-15 | 1.03E+00 | 3.58E-16 |
| 580123 | 2.27E+03 | 1.04E-13 | 5.32E+02 | 1.04E-13 | 2.52E+01 | 6.16E-14 | 1.41E+00 | 2.62E-15 |
| 580124 | 3.07E+03 | 6.15E-10 | 7.19E+02 | 5.33E-10 | 3.40E+01 | 1.28E-10 | 1.90E+00 | 9.29E-12 |
| 580125 | 3.94E+03 | 2.38E-10 | 9.23E+02 | 2.01E-10 | 4.37E+01 | 5.29E-11 | 2.44E+00 | 3.67E-12 |
| 580126 | 4.39E+03 | 1.02E-10 | 1.03E+03 | 8.70E-11 | 4.86E+01 | 2.55E-11 | 2.72E+00 | 1.65E-12 |
| 580127 | 5.77E+03 | 6.25E-11 | 1.35E+03 | 5.80E-11 | 6.40E+01 | 2.63E-11 | 3.58E+00 | 1.29E-12 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 580128 | 6.55E+03 | 3.61E-05 | 1.53E+03 | 3.61E-05 | 7.26E+01 | 1.43E-05 | 4.06E+00 | 1.30E-06 |
| 580129 | 6.88E+03 | 3.61E-05 | 1.61E+03 | 3.61E-05 | 7.63E+01 | 1.43E-05 | 4.27E+00 | 1.30E-06 |
| 580130 | 6.55E+03 | 3.61E-05 | 1.53E+03 | 3.61E-05 | 7.26E+01 | 1.43E-05 | 4.06E+00 | 1.30E-06 |
| 580131 | 5.37E+03 | 3.63E-05 | 1.26E+03 | 3.63E-05 | 5.95E+01 | 1.44E-05 | 3.33E+00 | 1.31E-06 |
| 580132 | 3.60E+03 | 3.61E-05 | 8.42E+02 | 3.61E-05 | 3.99E+01 | 1.43E-05 | 2.23E+00 | 1.30E-06 |
| 580133 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580142 | 6.32E-02 | 7.27E-05 | 6.27E-02 | 6.70E-05 | 2.24E-02 | 2.23E-05 | 6.33E-04 | 1.86E-06 |
| 580143 | 6.33E-02 | 7.94E-05 | 6.28E-02 | 7.26E-05 | 2.24E-02 | 2.37E-05 | 6.34E-04 | 1.97E-06 |
| 580144 | 6.31E-02 | 7.74E-05 | 6.27E-02 | 7.08E-05 | 2.24E-02 | 2.32E-05 | 6.34E-04 | 1.93E-06 |
| 580145 | 6.71E-02 | 1.03E-04 | 6.53E-02 | 9.26E-05 | 2.30E-02 | 2.88E-05 | 6.66E-04 | 2.33E-06 |
| 580146 | 1.64E-01 | 1.38E-04 | 1.28E-01 | 1.22E-04 | 3.70E-02 | 3.62E-05 | 1.44E-03 | 2.85E-06 |
| 580147 | 2.39E-01 | 1.59E-03 | 1.85E-01 | 1.57E-03 | 4.68E-02 | 2.16E-04 | 2.32E-03 | 1.46E-05 |
| 580148 | 7.64E-02 | 1.18E-04 | 7.14E-02 | 1.05E-04 | 2.44E-02 | 3.21E-05 | 7.42E-04 | 2.56E-06 |
| 580149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 580157 | 6.33E-04 | 2.52E-07 | 6.33E-04 | 2.52E-07 | 3.70E-04 | 1.01E-07 | 1.04E-05 | 9.06E-09 |
| 580167 | 6.33E-04 | 2.51E-07 | 6.33E-04 | 2.51E-07 | 3.70E-04 | 1.01E-07 | 1.04E-05 | 9.04E-09 |
| 580177 | 6.33E-04 | 2.51E-07 | 6.33E-04 | 2.51E-07 | 3.70E-04 | 1.01E-07 | 1.04E-05 | 9.04E-09 |
| 580187 | 6.33E-04 | 2.51E-07 | 6.33E-04 | 2.51E-07 | 3.70E-04 | 1.01E-07 | 1.04E-05 | 9.04E-09 |
| 580197 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 580207 | 6.24E-04 | 2.51E-07 | 6.24E-04 | 2.51E-07 | 3.64E-04 | 1.01E-07 | 1.02E-05 | 9.04E-09 |
| 581118 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581119 | 7.44E+02 | 3.61E-05 | 1.74E+02 | 3.61E-05 | 8.26E+00 | 1.43E-05 | 4.62E-01 | 1.30E-06 |
| 581120 | 1.04E+03 | 3.61E-05 | 2.44E+02 | 3.61E-05 | 1.16E+01 | 1.43E-05 | 6.48E-01 | 1.30E-06 |
| 581121 | 1.45E+03 | 3.61E-05 | 3.39E+02 | 3.61E-05 | 1.61E+01 | 1.43E-05 | 8.99E-01 | 1.30E-06 |
| 581122 | 1.98E+03 | 3.61E-05 | 4.63E+02 | 3.61E-05 | 2.19E+01 | 1.43E-05 | 1.22E+00 | 1.30E-06 |
| 581123 | 2.59E+03 | 3.61E-05 | 6.07E+02 | 3.61E-05 | 2.87E+01 | 1.43E-05 | 1.61E+00 | 1.30E-06 |
| 581124 | 3.28E+03 | 3.61E-05 | 7.68E+02 | 3.61E-05 | 3.63E+01 | 1.43E-05 | 2.03E+00 | 1.30E-06 |
| 581125 | 4.01E+03 | 3.61E-05 | 9.39E+02 | 3.61E-05 | 4.44E+01 | 1.43E-05 | 2.48E+00 | 1.30E-06 |
| 581126 | 4.73E+03 | 3.61E-05 | 1.11E+03 | 3.61E-05 | 5.25E+01 | 1.43E-05 | 2.93E+00 | 1.30E-06 |
| 581127 | 4.92E+03 | 3.61E-05 | 1.15E+03 | 3.61E-05 | 5.45E+01 | 1.43E-05 | 3.05E+00 | 1.30E-06 |
| 581128 | 5.22E+03 | 3.61E-05 | 1.22E+03 | 3.61E-05 | 5.79E+01 | 1.43E-05 | 3.24E+00 | 1.30E-06 |
| 581129 | 5.17E+03 | 3.61E-05 | 1.21E+03 | 3.61E-05 | 5.73E+01 | 1.43E-05 | 3.20E+00 | 1.30E-06 |
| 581130 | 4.75E+03 | 3.61E-05 | 1.11E+03 | 3.61E-05 | 5.26E+01 | 1.43E-05 | 2.94E+00 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 581131 | 3.82E+03 | 3.61E-05 | 8.94E+02 | 3.61E-05 | 4.23E+01 | 1.43E-05 | 2.37E+00 | 1.30E-06 |
| 581132 | 2.56E+03 | 3.61E-05 | 6.01E+02 | 3.61E-05 | 2.84E+01 | 1.43E-05 | 1.59E+00 | 1.30E-06 |
| 581133 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581141 | 6.33E-02 | 7.65E-05 | 6.28E-02 | 7.02E-05 | 2.24E-02 | 2.31E-05 | 6.33E-04 | 1.92E-06 |
| 581142 | 6.35E-02 | 8.54E-05 | 6.29E-02 | 7.76E-05 | 2.24E-02 | 2.50E-05 | 6.35E-04 | 2.06E-06 |
| 581143 | 6.37E-02 | 9.19E-05 | 6.30E-02 | 8.30E-05 | 2.25E-02 | 2.64E-05 | 6.37E-04 | 2.16E-06 |
| 581144 | 6.38E-02 | 1.02E-04 | 6.31E-02 | 9.14E-05 | 2.25E-02 | 2.85E-05 | 6.38E-04 | 2.31E-06 |
| 581145 | 6.47E-02 | 9.30E-05 | 6.37E-02 | 8.39E-05 | 2.26E-02 | 2.66E-05 | 6.46E-04 | 2.17E-06 |
| 581146 | 9.80E-02 | 1.14E-04 | 8.53E-02 | 1.01E-04 | 2.75E-02 | 3.12E-05 | 9.15E-04 | 2.49E-06 |
| 581147 | 8.04E-02 | 9.76E-04 | 7.39E-02 | 9.64E-04 | 2.49E-02 | 3.15E-04 | 7.73E-04 | 2.08E-05 |
| 581148 | 6.43E-02 | 9.25E-05 | 6.35E-02 | 8.34E-05 | 2.26E-02 | 2.65E-05 | 6.43E-04 | 2.16E-06 |
| 581149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 581156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582118 | 6.49E+02 | 3.61E-05 | 1.52E+02 | 3.61E-05 | 7.22E+00 | 1.43E-05 | 4.03E-01 | 1.30E-06 |
| 582119 | 8.94E+02 | 3.61E-05 | 2.09E+02 | 3.61E-05 | 9.92E+00 | 1.43E-05 | 5.55E-01 | 1.30E-06 |
| 582120 | 1.22E+03 | 3.61E-05 | 2.85E+02 | 3.61E-05 | 1.35E+01 | 1.43E-05 | 7.54E-01 | 1.30E-06 |
| 582121 | 1.64E+03 | 3.61E-05 | 3.84E+02 | 3.61E-05 | 1.81E+01 | 1.43E-05 | 1.01E+00 | 1.30E-06 |
| 582122 | 2.11E+03 | 3.61E-05 | 4.95E+02 | 3.61E-05 | 2.34E+01 | 1.43E-05 | 1.31E+00 | 1.30E-06 |
| 582123 | 2.64E+03 | 3.61E-05 | 6.18E+02 | 3.61E-05 | 2.92E+01 | 1.43E-05 | 1.63E+00 | 1.30E-06 |
| 582124 | 3.23E+03 | 3.61E-05 | 7.57E+02 | 3.61E-05 | 3.58E+01 | 1.43E-05 | 2.00E+00 | 1.30E-06 |
| 582125 | 3.73E+03 | 3.61E-05 | 8.74E+02 | 3.61E-05 | 4.13E+01 | 1.43E-05 | 2.31E+00 | 1.30E-06 |
| 582126 | 4.10E+03 | 3.61E-05 | 9.61E+02 | 3.61E-05 | 4.54E+01 | 1.43E-05 | 2.54E+00 | 1.30E-06 |
| 582127 | 4.28E+03 | 3.61E-05 | 1.00E+03 | 3.61E-05 | 4.75E+01 | 1.43E-05 | 2.66E+00 | 1.30E-06 |
| 582128 | 4.23E+03 | 3.61E-05 | 9.91E+02 | 3.61E-05 | 4.69E+01 | 1.43E-05 | 2.62E+00 | 1.30E-06 |
| 582129 | 3.81E+03 | 3.61E-05 | 8.92E+02 | 3.61E-05 | 4.22E+01 | 1.43E-05 | 2.36E+00 | 1.30E-06 |
| 582130 | 3.12E+03 | 3.61E-05 | 7.31E+02 | 3.61E-05 | 3.46E+01 | 1.43E-05 | 1.93E+00 | 1.30E-06 |
| 582131 | 2.32E+03 | 3.61E-05 | 5.43E+02 | 3.61E-05 | 2.57E+01 | 1.43E-05 | 1.44E+00 | 1.30E-06 |
| 582132 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582133 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 582140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582141 | 6.33E-02 | 7.72E-05 | 6.28E-02 | 7.07E-05 | 2.24E-02 | 2.32E-05 | 6.34E-04 | 1.93E-06 |
| 582142 | 6.35E-02 | 8.65E-05 | 6.29E-02 | 7.85E-05 | 2.24E-02 | 2.52E-05 | 6.35E-04 | 2.07E-06 |
| 582143 | 6.40E-02 | 9.68E-05 | 6.32E-02 | 8.71E-05 | 2.25E-02 | 2.74E-05 | 6.39E-04 | 2.23E-06 |
| 582144 | 7.76E-02 | 1.08E-04 | 7.21E-02 | 9.65E-05 | 2.45E-02 | 2.99E-05 | 7.51E-04 | 2.40E-06 |
| 582145 | 3.04E-01 | 1.17E-04 | 2.21E-01 | 1.04E-04 | 5.80E-02 | 3.19E-05 | 2.62E-03 | 2.55E-06 |
| 582146 | 7.03E-01 | 1.22E-04 | 4.84E-01 | 1.08E-04 | 1.17E-01 | 3.29E-05 | 5.91E-03 | 2.61E-06 |
| 582147 | 5.74E-01 | 1.98E-04 | 3.98E-01 | 1.72E-04 | 9.80E-02 | 4.94E-05 | 4.84E-03 | 3.77E-06 |
| 582148 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 582156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583116 | 3.93E+02 | 0.00E+00 | 9.22E+01 | 0.00E+00 | 4.36E+00 | 0.00E+00 | 2.44E-01 | 0.00E+00 |
| 583117 | 5.45E+02 | 0.00E+00 | 1.28E+02 | 0.00E+00 | 6.04E+00 | 0.00E+00 | 3.38E-01 | 0.00E+00 |
| 583118 | 7.44E+02 | 3.61E-05 | 1.74E+02 | 3.61E-05 | 8.26E+00 | 1.43E-05 | 4.62E-01 | 1.30E-06 |
| 583119 | 9.99E+02 | 3.61E-05 | 2.34E+02 | 3.61E-05 | 1.11E+01 | 1.43E-05 | 6.20E-01 | 1.30E-06 |
| 583120 | 1.32E+03 | 3.61E-05 | 3.09E+02 | 3.61E-05 | 1.46E+01 | 1.43E-05 | 8.20E-01 | 1.30E-06 |
| 583121 | 1.68E+03 | 3.61E-05 | 3.94E+02 | 3.61E-05 | 1.86E+01 | 1.43E-05 | 1.04E+00 | 1.30E-06 |
| 583122 | | 3.61E-05 | 4.85E+02 | 3.61E-05 | 2.29E+01 | 1.43E-05 | 1.28E+00 | 1.30E-06 |
| 583123 | 2.50E+03 | 3.61E-05 | 5.85E+02 | 3.61E-05 | 2.77E+01 | 1.43E-05 | 1.55E+00 | 1.30E-06 |
| 583124 | 2.86E+03 | 3.61E-05 | 6.71E+02 | 3.61E-05 | 3.17E+01 | 1.43E-05 | 1.78E+00 | 1.30E-06 |
| 583125 | 3.12E+03 | 3.61E-05 | 7.32E+02 | 3.61E-05 | 3.46E+01 | 1.43E-05 | 1.94E+00 | 1.30E-06 |
| 583126 | 3.26E+03 | 3.61E-05 | 7.63E+02 | 3.61E-05 | 3.61E+01 | 1.43E-05 | 2.02E+00 | 1.30E-06 |
| 583127 | 3.23E+03 | 3.61E-05 | 7.57E+02 | 3.61E-05 | 3.58E+01 | 1.43E-05 | 2.00E+00 | 1.30E-06 |
| 583128 | 2.95E+03 | 3.61E-05 | 6.90E+02 | 3.61E-05 | 3.27E+01 | 1.43E-05 | 1.83E+00 | 1.30E-06 |
| 583129 | 2.49E+03 | 3.61E-05 | 5.84E+02 | 3.61E-05 | 2.76E+01 | 1.43E-05 | 1.54E+00 | 1.30E-06 |
| 583130 | 1.90E+03 | 3.61E-05 | 4.45E+02 | 3.61E-05 | 2.10E+01 | 1.43E-05 | 1.18E+00 | 1.30E-06 |
| 583131 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583132 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583133 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583141 | 6.33E-02 | 7.65E-05 | 6.28E-02 | 7.02E-05 | 2.24E-02 | 2.31E-05 | 6.33E-04 | 1.92E-06 |
| 583142 | 6.35E-02 | 8.54E-05 | 6.29E-02 | 7.76E-05 | 2.24E-02 | 2.50E-05 | 6.35E-04 | 2.06E-06 |
| 583143 | 6.38E-02 | 9.50E-05 | 6.31E-02 | 8.57E-05 | 2.25E-02 | 2.71E-05 | 6.37E-04 | 2.20E-06 |
| 583144 | 7.25E-02 | 1.06E-04 | 6.85E-02 | 9.52E-05 | 2.37E-02 | 2.96E-05 | 7.04E-04 | 2.38E-06 |
| 583145 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583146 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 583147 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583148 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 583156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584113 | 1.86E+02 | 0.00E+00 | 4.37E+01 | 0.00E+00 | 2.07E+00 | 0.00E+00 | 1.16E-01 | 0.00E+00 |
| 584114 | 2.82E+02 | 0.00E+00 | 6.60E+01 | 0.00E+00 | 3.12E+00 | 0.00E+00 | 1.75E-01 | 0.00E+00 |
| 584115 | 3.90E+02 | 0.00E+00 | 9.14E+01 | 0.00E+00 | 4.32E+00 | 0.00E+00 | 2.42E-01 | 0.00E+00 |
| 584116 | 4.93E+02 | 0.00E+00 | 1.15E+02 | 0.00E+00 | 5.46E+00 | 0.00E+00 | 3.05E-01 | 0.00E+00 |
| 584117 | 6.05E+02 | 8.52E-18 | 1.42E+02 | 8.52E-18 | 6.70E+00 | 5.06E-18 | 3.75E-01 | 2.15E-19 |
| 584118 | 8.16E+02 | 3.61E-05 | 1.91E+02 | 3.61E-05 | 9.06E+00 | 1.43E-05 | 5.07E-01 | 1.30E-06 |
| 584119 | 1.04E+03 | 3.61E-05 | 2.44E+02 | 3.61E-05 | 1.16E+01 | 1.43E-05 | 6.48E-01 | 1.30E-06 |
| 584120 | 1.30E+03 | 3.61E-05 | 3.06E+02 | 3.61E-05 | 1.45E+01 | 1.43E-05 | 8.09E-01 | 1.30E-06 |
| 584121 | 1.59E+03 | 3.61E-05 | 3.73E+02 | 3.61E-05 | 1.77E+01 | 1.43E-05 | 9.88E-01 | 1.30E-06 |
| 584122 | 1.90E+03 | 3.61E-05 | 4.46E+02 | 3.61E-05 | 2.11E+01 | 1.43E-05 | 1.18E+00 | 1.30E-06 |
| 584123 | 2.16E+03 | 3.61E-05 | 5.06E+02 | 3.61E-05 | 2.39E+01 | 1.43E-05 | 1.34E+00 | 1.30E-06 |
| 584124 | 2.34E+03 | 3.61E-05 | 5.49E+02 | 3.61E-05 | 2.60E+01 | 1.43E-05 | 1.45E+00 | 1.30E-06 |
| 584125 | 2.47E+03 | 3.61E-05 | 5.78E+02 | 3.61E-05 | 2.74E+01 | 1.43E-05 | 1.53E+00 | 1.30E-06 |
| 584126 | 2.41E+03 | 3.61E-05 | 5.64E+02 | 3.61E-05 | 2.67E+01 | 1.43E-05 | 1.49E+00 | 1.30E-06 |
| 584127 | 2.22E+03 | 3.61E-05 | 5.20E+02 | 3.61E-05 | 2.46E+01 | 1.43E-05 | 1.38E+00 | 1.30E-06 |
| 584128 | 1.89E+03 | 3.61E-05 | 4.43E+02 | 3.61E-05 | 2.10E+01 | 1.43E-05 | 1.17E+00 | 1.30E-06 |
| 584129 | 1.47E+03 | 3.61E-05 | 3.44E+02 | 3.61E-05 | 1.63E+01 | 1.43E-05 | 9.13E-01 | 1.30E-06 |
| 584130 | 6.28E+00 | 3.61E-05 | 1.52E+00 | 3.61E-05 | 9.11E-02 | 1.43E-05 | 4.48E-03 | 1.30E-06 |
| 584131 | 3.80E+00 | 3.61E-05 | 9.37E-01 | 3.61E-05 | 6.36E-02 | 1.43E-05 | 2.95E-03 | 1.30E-06 |
| 584132 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584133 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584141 | 6.32E-02 | 7.39E-05 | 6.27E-02 | 6.80E-05 | 2.24E-02 | 2.25E-05 | 6.33E-04 | 1.88E-06 |
| 584142 | 6.34E-02 | 8.18E-05 | 6.28E-02 | 7.46E-05 | 2.24E-02 | 2.42E-05 | 6.34E-04 | 2.00E-06 |
| 584143 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584144 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584145 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584146 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584147 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584148 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 584151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 584156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585113 | 2.20E+02 | 0.00E+00 | 5.15E+01 | 0.00E+00 | 2.44E+00 | 0.00E+00 | 1.36E-01 | 0.00E+00 |
| 585114 | 3.31E+02 | 0.00E+00 | 7.75E+01 | 0.00E+00 | 3.67E+00 | 0.00E+00 | 2.05E-01 | 0.00E+00 |
| 585115 | 4.56E+02 | 0.00E+00 | 1.07E+02 | 0.00E+00 | 5.06E+00 | 0.00E+00 | 2.83E-01 | 0.00E+00 |
| 585116 | 5.77E+02 | 8.37E-19 | 1.35E+02 | 8.37E-19 | 6.40E+00 | 4.97E-19 | 3.58E-01 | 2.11E-20 |
| 585117 | 6.66E+02 | 1.15E-17 | 1.56E+02 | 1.15E-17 | 7.38E+00 | 6.84E-18 | 4.13E-01 | 2.91E-19 |
| 585118 | 8.10E+02 | 3.61E-05 | 1.90E+02 | 3.61E-05 | 9.00E+00 | 1.43E-05 | 5.03E-01 | 1.30E-06 |
| 585119 | 9.99E+02 | 3.61E-05 | 2.34E+02 | 3.61E-05 | 1.11E+01 | 1.43E-05 | 6.20E-01 | 1.30E-06 |
| 585120 | 1.23E+03 | 3.61E-05 | 2.87E+02 | 3.61E-05 | 1.36E+01 | 1.43E-05 | 7.61E-01 | 1.30E-06 |
| 585121 | 1.43E+03 | 3.61E-05 | 3.34E+02 | 3.61E-05 | 1.58E+01 | 1.43E-05 | 8.85E-01 | 1.30E-06 |
| 585122 | 1.60E+03 | 3.61E-05 | 3.76E+02 | 3.61E-05 | 1.78E+01 | 1.43E-05 | 9.95E-01 | 1.30E-06 |
| 585123 | 1.73E+03 | 3.61E-05 | 4.04E+02 | 3.61E-05 | 1.91E+01 | 1.43E-05 | 1.07E+00 | 1.30E-06 |
| 585124 | 1.81E+03 | 3.61E-05 | 4.24E+02 | 3.61E-05 | 2.00E+01 | 1.43E-05 | 1.12E+00 | 1.30E-06 |
| 585125 | 1.78E+03 | 3.61E-05 | 4.16E+02 | 3.61E-05 | 1.97E+01 | 1.43E-05 | 1.10E+00 | 1.30E-06 |
| 585126 | 1.65E+03 | 3.61E-05 | 3.86E+02 | 3.61E-05 | 1.83E+01 | 1.43E-05 | 1.02E+00 | 1.30E-06 |
| 585127 | 1.43E+03 | 3.61E-05 | 3.35E+02 | 3.61E-05 | 1.59E+01 | 1.43E-05 | 8.89E-01 | 1.30E-06 |
| 585128 | 1.15E+03 | 3.61E-05 | 2.70E+02 | 3.61E-05 | 1.28E+01 | 1.43E-05 | 7.17E-01 | 1.30E-06 |
| 585129 | 8.32E+02 | 3.61E-05 | 1.95E+02 | 3.61E-05 | 9.25E+00 | 1.43E-05 | 5.17E-01 | 1.30E-06 |
| 585130 | 9.44E+00 | 3.61E-05 | 2.26E+00 | 3.61E-05 | 1.26E-01 | 1.43E-05 | 6.44E-03 | 1.30E-06 |
| 585131 | 5.36E+00 | 3.61E-05 | 1.30E+00 | 3.61E-05 | 8.09E-02 | 1.43E-05 | 3.92E-03 | 1.30E-06 |
| 585132 | 4.55E+00 | 3.61E-05 | 1.11E+00 | 3.61E-05 | 7.20E-02 | 1.43E-05 | 3.41E-03 | 1.30E-06 |
| 585133 | 2.75E+00 | 3.61E-05 | 6.91E-01 | 3.61E-05 | 5.20E-02 | 1.43E-05 | 2.29E-03 | 1.30E-06 |
| 585134 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585142 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585143 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585144 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585145 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585146 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585147 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585148 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 585155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 585156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586113 | 2.35E+02 | 0.00E+00 | 5.51E+01 | 0.00E+00 | 2.61E+00 | 0.00E+00 | 1.46E-01 | 0.00E+00 |
| 586114 | 3.54E+02 | 0.00E+00 | 8.28E+01 | 0.00E+00 | 3.92E+00 | 0.00E+00 | 2.19E-01 | 0.00E+00 |
| 586115 | 4.89E+02 | 0.00E+00 | 1.15E+02 | 0.00E+00 | 5.42E+00 | 0.00E+00 | 3.03E-01 | 0.00E+00 |
| 586116 | 6.16E+02 | 1.23E-18 | 1.44E+02 | 1.23E-18 | 6.83E+00 | 7.30E-19 | 3.82E-01 | 3.10E-20 |
| 586117 | 7.10E+02 | 1.27E-17 | 1.66E+02 | 1.27E-17 | 7.87E+00 | 7.52E-18 | 4.40E-01 | 3.20E-19 |
| 586118 | 7.55E+02 | 3.61E-05 | 1.77E+02 | 3.61E-05 | 8.38E+00 | 1.43E-05 | 4.69E-01 | 1.30E-06 |
| 586119 | 9.16E+02 | 3.61E-05 | 2.14E+02 | 3.61E-05 | 1.01E+01 | 1.43E-05 | 5.69E-01 | 1.30E-06 |
| 586120 | 1.05E+03 | 3.61E-05 | 2.47E+02 | 3.61E-05 | 1.17E+01 | 1.43E-05 | 6.55E-01 | 1.30E-06 |
| 586121 | 1.18E+03 | 3.61E-05 | 2.76E+02 | 3.61E-05 | 1.30E+01 | 1.43E-05 | 7.30E-01 | 1.30E-06 |
| 586122 | 1.28E+03 | 3.61E-05 | 3.00E+02 | 3.61E-05 | 1.42E+01 | 1.43E-05 | 7.96E-01 | 1.30E-06 |
| 586123 | 1.32E+03 | 3.61E-05 | 3.08E+02 | 3.61E-05 | 1.46E+01 | 1.43E-05 | 8.16E-01 | 1.30E-06 |
| 586124 | 1.29E+03 | 3.61E-05 | 3.02E+02 | 3.61E-05 | 1.43E+01 | 1.43E-05 | 7.99E-01 | 1.30E-06 |
| 586125 | 1.20E+03 | 3.61E-05 | 2.81E+02 | 3.61E-05 | 1.33E+01 | 1.43E-05 | 7.44E-01 | 1.30E-06 |
| 586126 | 1.05E+03 | 3.61E-05 | 2.46E+02 | 3.61E-05 | 1.16E+01 | 1.43E-05 | 6.51E-01 | 1.30E-06 |
| 586127 | 8.66E+02 | 3.61E-05 | 2.03E+02 | 3.61E-05 | 9.61E+00 | 1.43E-05 | 5.38E-01 | 1.30E-06 |
| 586128 | 6.55E+02 | 3.61E-05 | 1.53E+02 | 3.61E-05 | 7.28E+00 | 1.43E-05 | 4.07E-01 | 1.30E-06 |
| 586129 | 2.09E+01 | 3.61E-05 | 4.92E+00 | 3.61E-05 | 2.52E-01 | 1.43E-05 | 1.35E-02 | 1.30E-06 |
| 586130 | 1.24E+01 | 3.61E-05 | 2.95E+00 | 3.61E-05 | 1.59E-01 | 1.43E-05 | 8.27E-03 | 1.30E-06 |
| 586131 | 1.06E+01 | 3.61E-05 | 2.52E+00 | 3.61E-05 | 1.38E-01 | 1.43E-05 | 7.13E-03 | 1.30E-06 |
| 586132 | 6.55E+00 | 3.61E-05 | 1.58E+00 | 3.61E-05 | 9.42E-02 | 1.43E-05 | 4.65E-03 | 1.30E-06 |
| 586133 | 3.77E+00 | 3.61E-05 | 9.30E-01 | 3.61E-05 | 6.33E-02 | 1.43E-05 | 2.93E-03 | 1.30E-06 |
| 586134 | 2.27E+00 | 3.61E-05 | 5.81E-01 | 3.61E-05 | 4.67E-02 | 1.43E-05 | 2.00E-03 | 1.30E-06 |
| 586135 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586136 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586137 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586138 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586139 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586140 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586141 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586142 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586143 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586144 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586145 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586146 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586147 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586148 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586149 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586150 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586151 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586152 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586153 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586154 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586155 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 586156 | 6.22E-02 | 3.61E-05 | 6.22E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587113 | 2.32E+02 | 0.00E+00 | 5.43E+01 | 0.00E+00 | 2.57E+00 | 0.00E+00 | 1.44E-01 | 0.00E+00 |
| 587114 | 3.46E+02 | 0.00E+00 | 8.10E+01 | 0.00E+00 | 3.83E+00 | 0.00E+00 | 2.14E-01 | 0.00E+00 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 587115 | 4.81E+02 | 1.19E-19 | 1.13E+02 | 1.19E-19 | 5.33E+00 | 7.09E-20 | 2.98E-01 | 3.02E-21 |
| 587116 | 6.05E+02 | 1.56E-18 | 1.42E+02 | 1.56E-18 | 6.70E+00 | 9.26E-19 | 3.75E-01 | 3.94E-20 |
| 587117 | 6.99E+02 | 1.47E-17 | 1.64E+02 | 1.47E-17 | 7.75E+00 | 8.73E-18 | 4.33E-01 | 3.72E-19 |
| 587118 | 7.33E+02 | 3.61E-05 | 1.72E+02 | 3.61E-05 | 8.14E+00 | 1.43E-05 | 4.55E-01 | 1.30E-06 |
| 587119 | 7.77E+02 | 3.62E-05 | 1.82E+02 | 3.61E-05 | 8.63E+00 | 1.43E-05 | 4.83E-01 | 1.31E-06 |
| 587120 | 8.55E+02 | 3.61E-05 | 2.00E+02 | 3.61E-05 | 9.49E+00 | 1.43E-05 | 5.31E-01 | 1.31E-06 |
| 587121 | 9.27E+02 | 3.61E-05 | 2.17E+02 | 3.61E-05 | 1.03E+01 | 1.43E-05 | 5.75E-01 | 1.31E-06 |
| 587122 | 9.49E+02 | 3.61E-05 | 2.22E+02 | 3.61E-05 | 1.05E+01 | 1.43E-05 | 5.89E-01 | 1.30E-06 |
| 587123 | 9.32E+02 | 3.61E-05 | 2.18E+02 | 3.61E-05 | 1.03E+01 | 1.43E-05 | 5.79E-01 | 1.30E-06 |
| 587124 | 8.60E+02 | 3.61E-05 | 2.02E+02 | 3.61E-05 | 9.55E+00 | 1.43E-05 | 5.34E-01 | 1.30E-06 |
| 587125 | 7.71E+02 | 3.61E-05 | 1.81E+02 | 3.61E-05 | 8.57E+00 | 1.43E-05 | 4.79E-01 | 1.30E-06 |
| 587126 | 6.33E+02 | 3.61E-05 | 1.48E+02 | 3.61E-05 | 7.03E+00 | 1.43E-05 | 3.93E-01 | 1.30E-06 |
| 587127 | 4.89E+02 | 3.61E-05 | 1.15E+02 | 3.61E-05 | 5.44E+00 | 1.43E-05 | 3.04E-01 | 1.30E-06 |
| 587128 | 4.03E+01 | 3.61E-05 | 9.47E+00 | 3.61E-05 | 4.67E-01 | 1.43E-05 | 2.55E-02 | 1.30E-06 |
| 587129 | 2.50E+01 | 3.61E-05 | 5.90E+00 | 3.61E-05 | 2.98E-01 | 1.43E-05 | 1.60E-02 | 1.30E-06 |
| 587130 | 2.19E+01 | 3.61E-05 | 5.17E+00 | 3.61E-05 | 2.64E-01 | 1.43E-05 | 1.41E-02 | 1.30E-06 |
| 587131 | 1.43E+01 | 3.61E-05 | 3.38E+00 | 3.61E-05 | 1.79E-01 | 1.43E-05 | 9.40E-03 | 1.30E-06 |
| 587132 | 8.38E+00 | 3.61E-05 | 2.01E+00 | 3.61E-05 | 1.14E-01 | 1.43E-05 | 5.79E-03 | 1.30E-06 |
| 587133 | 5.25E+00 | 3.61E-05 | 1.28E+00 | 3.61E-05 | 7.98E-02 | 1.43E-05 | 3.85E-03 | 1.30E-06 |
| 587134 | 3.51E+00 | 3.61E-05 | 8.72E-01 | 3.61E-05 | 6.05E-02 | 1.43E-05 | 2.77E-03 | 1.30E-06 |
| 587135 | 2.14E+00 | 3.61E-05 | 5.49E-01 | 3.61E-05 | 4.52E-02 | 1.43E-05 | 1.92E-03 | 1.30E-06 |
| 587136 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587137 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587138 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587139 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587140 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587141 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587142 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587143 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587144 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587145 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587146 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587147 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587148 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587149 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587150 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587151 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587152 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587153 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587154 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587155 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 587156 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588113 | 2.09E+02 | 0.00E+00 | 4.90E+01 | 0.00E+00 | 2.32E+00 | 0.00E+00 | 1.30E-01 | 0.00E+00 |
| 588114 | 3.12E+02 | 1.21E-20 | 7.31E+01 | 1.21E-20 | 3.46E+00 | 7.18E-21 | 1.93E-01 | 3.06E-22 |
| 588115 | 4.30E+02 | 1.57E-19 | 1.01E+02 | 1.57E-19 | 4.77E+00 | 9.33E-20 | 2.67E-01 | 3.97E-21 |
| 588116 | 5.45E+02 | 1.73E-18 | 1.28E+02 | 1.73E-18 | 6.04E+00 | 1.03E-18 | 3.38E-01 | 4.36E-20 |
| 588117 | 6.22E+02 | 1.45E-17 | 1.46E+02 | 1.45E-17 | 6.89E+00 | 8.60E-18 | 3.85E-01 | 3.66E-19 |
| 588118 | 6.22E+02 | 3.62E-05 | 1.46E+02 | 3.62E-05 | 6.91E+00 | 1.43E-05 | 3.86E-01 | 1.31E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 588119 | 5.99E+02 | 3.62E-05 | 1.40E+02 | 3.62E-05 | 6.66E+00 | 1.43E-05 | 3.73E-01 | 1.31E-06 |
| 588120 | 6.66E+02 | 3.62E-05 | 1.56E+02 | 3.62E-05 | 7.40E+00 | 1.43E-05 | 4.14E-01 | 1.31E-06 |
| 588121 | 6.77E+02 | 3.62E-05 | 1.59E+02 | 3.62E-05 | 7.52E+00 | 1.43E-05 | 4.21E-01 | 1.31E-06 |
| 588122 | 6.60E+02 | 3.62E-05 | 1.55E+02 | 3.62E-05 | 7.34E+00 | 1.43E-05 | 4.10E-01 | 1.31E-06 |
| 588123 | 6.27E+02 | 3.62E-05 | 1.47E+02 | 3.61E-05 | 6.97E+00 | 1.43E-05 | 3.90E-01 | 1.31E-06 |
| 588124 | 5.61E+02 | 3.62E-05 | 1.31E+02 | 3.61E-05 | 6.23E+00 | 1.43E-05 | 3.48E-01 | 1.31E-06 |
| 588125 | 4.66E+02 | 3.61E-05 | 1.09E+02 | 3.61E-05 | 5.18E+00 | 1.43E-05 | 2.90E-01 | 1.30E-06 |
| 588126 | 3.60E+02 | 3.61E-05 | 8.45E+01 | 3.61E-05 | 4.01E+00 | 1.43E-05 | 2.24E-01 | 1.30E-06 |
| 588127 | 6.95E+01 | 3.61E-05 | 1.63E+01 | 3.61E-05 | 7.91E-01 | 1.43E-05 | 4.36E-02 | 1.30E-06 |
| 588128 | 4.54E+01 | 3.61E-05 | 1.07E+01 | 3.61E-05 | 5.24E-01 | 1.43E-05 | 2.87E-02 | 1.30E-06 |
| 588129 | 4.07E+01 | 3.61E-05 | 9.58E+00 | 3.61E-05 | 4.72E-01 | 1.43E-05 | 2.58E-02 | 1.30E-06 |
| 588130 | 2.78E+01 | 3.61E-05 | 6.55E+00 | 3.61E-05 | 3.29E-01 | 1.43E-05 | 1.78E-02 | 1.30E-06 |
| 588131 | 1.71E+01 | 3.61E-05 | 4.04E+00 | 3.61E-05 | 2.10E-01 | 1.43E-05 | 1.11E-02 | 1.30E-06 |
| 588132 | 1.13E+01 | 3.61E-05 | 2.67E+00 | 3.61E-05 | 1.46E-01 | 1.43E-05 | 7.54E-03 | 1.30E-06 |
| 588133 | 7.72E+00 | 3.61E-05 | 1.85E+00 | 3.61E-05 | 1.07E-01 | 1.43E-05 | 5.38E-03 | 1.30E-06 |
| 588134 | 4.99E+00 | 3.61E-05 | 1.22E+00 | 3.61E-05 | 7.69E-02 | 1.43E-05 | 3.69E-03 | 1.30E-06 |
| 588135 | 3.11E+00 | 3.61E-05 | 7.78E-01 | 3.61E-05 | 5.60E-02 | 1.43E-05 | 2.52E-03 | 1.30E-06 |
| 588136 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588137 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588138 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588139 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588140 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588141 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588142 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588143 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588144 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588145 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588146 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588147 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588148 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588149 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588150 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588151 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588152 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588153 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588154 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588155 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 588156 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589113 | 1.73E+02 | 1.27E-21 | 4.06E+01 | 1.27E-21 | 1.92E+00 | 7.57E-22 | 1.07E-01 | 3.22E-23 |
| 589114 | 2.58E+02 | 1.91E-20 | 6.04E+01 | 1.91E-20 | 2.86E+00 | 1.13E-20 | 1.60E-01 | 4.82E-22 |
| 589115 | 3.57E+02 | 2.09E-19 | 8.37E+01 | 2.09E-19 | 3.96E+00 | 1.24E-19 | 2.22E-01 | 5.28E-21 |
| 589116 | 4.43E+02 | 1.90E-18 | 1.04E+02 | 1.90E-18 | 4.91E+00 | 1.13E-18 | 2.75E-01 | 4.81E-20 |
| 589117 | 4.85E+02 | 1.45E-17 | 1.13E+02 | 1.45E-17 | 5.37E+00 | 8.60E-18 | 3.00E-01 | 3.66E-19 |
| 589118 | 5.07E+02 | 3.62E-05 | 1.19E+02 | 3.62E-05 | 5.63E+00 | 1.43E-05 | 3.15E-01 | 1.31E-06 |
| 589119 | 4.93E+02 | 3.62E-05 | 1.16E+02 | 3.62E-05 | 5.49E+00 | 1.43E-05 | 3.07E-01 | 1.31E-06 |
| 589120 | 4.75E+02 | 3.62E-05 | 1.11E+02 | 3.62E-05 | 5.28E+00 | 1.43E-05 | 2.95E-01 | 1.31E-06 |
| 589121 | 4.71E+02 | 3.62E-05 | 1.10E+02 | 3.62E-05 | 5.24E+00 | 1.43E-05 | 2.93E-01 | 1.31E-06 |
| 589122 | 4.48E+02 | 3.62E-05 | 1.05E+02 | 3.62E-05 | 4.99E+00 | 1.43E-05 | 2.79E-01 | 1.31E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 589123 | 3.96E+02 | 3.62E-05 | 9.29E+01 | 3.62E-05 | 4.41E+00 | 1.43E-05 | 2.47E-01 | 1.31E-06 |
| 589124 | 3.34E+02 | 3.62E-05 | 7.84E+01 | 3.62E-05 | 3.72E+00 | 1.43E-05 | 2.08E-01 | 1.31E-06 |
| 589125 | 2.66E+02 | 3.62E-05 | 6.25E+01 | 3.62E-05 | 2.97E+00 | 1.43E-05 | 1.66E-01 | 1.31E-06 |
| 589126 | 1.97E+02 | 3.62E-05 | 4.62E+01 | 3.62E-05 | 2.20E+00 | 1.43E-05 | 1.23E-01 | 1.31E-06 |
| 589127 | 7.17E+01 | 3.62E-05 | 1.69E+01 | 3.62E-05 | 8.15E-01 | 1.43E-05 | 4.50E-02 | 1.31E-06 |
| 589128 | 6.61E+01 | 3.62E-05 | 1.56E+01 | 3.61E-05 | 7.54E-01 | 1.43E-05 | 4.15E-02 | 1.31E-06 |
| 589129 | 4.74E+01 | 3.61E-05 | 1.12E+01 | 3.61E-05 | 5.46E-01 | 1.43E-05 | 2.99E-02 | 1.30E-06 |
| 589130 | 3.06E+01 | 3.61E-05 | 7.21E+00 | 3.61E-05 | 3.60E-01 | 1.43E-05 | 1.95E-02 | 1.30E-06 |
| 589131 | 2.10E+01 | 3.61E-05 | 4.96E+00 | 3.61E-05 | 2.54E-01 | 1.43E-05 | 1.36E-02 | 1.30E-06 |
| 589132 | 1.54E+01 | 3.61E-05 | 3.65E+00 | 3.61E-05 | 1.92E-01 | 1.43E-05 | 1.01E-02 | 1.30E-06 |
| 589133 | 1.06E+01 | 3.61E-05 | 2.53E+00 | 3.61E-05 | 1.39E-01 | 1.43E-05 | 7.17E-03 | 1.30E-06 |
| 589134 | 6.78E+00 | 3.61E-05 | 1.63E+00 | 3.61E-05 | 9.66E-02 | 1.43E-05 | 4.79E-03 | 1.30E-06 |
| 589135 | 4.19E+00 | 3.61E-05 | 1.03E+00 | 3.61E-05 | 6.80E-02 | 1.43E-05 | 3.19E-03 | 1.30E-06 |
| 589136 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589137 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589138 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589139 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589140 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589141 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589142 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589143 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589144 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589145 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589146 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589147 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589148 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589149 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589150 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589151 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589152 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589153 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589154 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589155 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 589156 | 6.27E-02 | 3.61E-05 | 6.27E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.26E-04 | 1.30E-06 |
| 590057 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590067 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590077 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590087 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590097 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590113 | 1.32E+02 | 1.87E-21 | 3.08E+01 | 1.87E-21 | 1.46E+00 | 1.11E-21 | 8.15E-02 | 4.73E-23 |
| 590114 | 1.95E+02 | 2.20E-20 | 4.56E+01 | 2.20E-20 | 2.16E+00 | 1.31E-20 | 1.21E-01 | 5.56E-22 |
| 590115 | 2.68E+02 | 2.31E-19 | 6.27E+01 | 2.31E-19 | 2.96E+00 | 1.37E-19 | 1.66E-01 | 5.84E-21 |
| 590116 | 3.19E+02 | 1.81E-18 | 7.48E+01 | 1.81E-18 | 3.54E+00 | 1.08E-18 | 1.98E-01 | 4.58E-20 |
| 590117 | 3.64E+02 | 1.33E-07 | 8.51E+01 | 1.12E-07 | 4.03E+00 | 2.88E-08 | 2.25E-01 | 2.03E-09 |
| 590118 | 3.84E+02 | 3.62E-05 | 9.01E+01 | 3.62E-05 | 4.28E+00 | 1.44E-05 | 2.39E-01 | 1.31E-06 |
| 590119 | 3.90E+02 | 3.62E-05 | 9.15E+01 | 3.62E-05 | 4.34E+00 | 1.44E-05 | 2.43E-01 | 1.31E-06 |
| 590120 | 3.76E+02 | 3.62E-05 | 8.82E+01 | 3.62E-05 | 4.19E+00 | 1.44E-05 | 2.34E-01 | 1.31E-06 |
| 590121 | 3.17E+02 | 4.81E-02 | 7.43E+01 | 4.81E-02 | 3.53E+00 | 2.82E-02 | 1.97E-01 | 1.82E-03 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 590122 | 2.85E+02 | 3.62E-05 | 6.68E+01 | 3.62E-05 | 3.17E+00 | 1.44E-05 | 1.77E-01 | 1.31E-06 |
| 590123 | 2.38E+02 | 3.62E-05 | 5.59E+01 | 3.62E-05 | 2.66E+00 | 1.44E-05 | 1.49E-01 | 1.31E-06 |
| 590124 | 1.96E+02 | 3.62E-05 | 4.61E+01 | 3.62E-05 | 2.20E+00 | 1.43E-05 | 1.23E-01 | 1.31E-06 |
| 590125 | 1.46E+02 | 3.62E-05 | 3.43E+01 | 3.62E-05 | 1.64E+00 | 1.43E-05 | 9.11E-02 | 1.31E-06 |
| 590126 | 9.94E+01 | 3.62E-05 | 2.34E+01 | 3.62E-05 | 1.12E+00 | 1.43E-05 | 6.22E-02 | 1.31E-06 |
| 590127 | 9.61E+01 | 3.62E-05 | 2.26E+01 | 3.62E-05 | 1.08E+00 | 1.43E-05 | 6.01E-02 | 1.31E-06 |
| 590128 | 7.23E+01 | 3.62E-05 | 1.70E+01 | 3.62E-05 | 8.21E-01 | 1.43E-05 | 4.53E-02 | 1.31E-06 |
| 590129 | 4.89E+01 | 3.62E-05 | 1.15E+01 | 3.61E-05 | 5.63E-01 | 1.43E-05 | 3.08E-02 | 1.31E-06 |
| 590130 | 3.52E+01 | 3.62E-05 | 8.29E+00 | 3.61E-05 | 4.11E-01 | 1.43E-05 | 2.23E-02 | 1.31E-06 |
| 590131 | 2.73E+01 | 3.61E-05 | 6.44E+00 | 3.61E-05 | 3.23E-01 | 1.43E-05 | 1.75E-02 | 1.30E-06 |
| 590132 | 1.98E+01 | 3.61E-05 | 4.69E+00 | 3.61E-05 | 2.40E-01 | 1.43E-05 | 1.28E-02 | 1.30E-06 |
| 590133 | 1.35E+01 | 3.61E-05 | 3.22E+00 | 3.61E-05 | 1.71E-01 | 1.43E-05 | 8.95E-03 | 1.30E-06 |
| 590134 | 8.95E+00 | 3.61E-05 | 2.15E+00 | 3.61E-05 | 1.21E-01 | 1.43E-05 | 6.13E-03 | 1.30E-06 |
| 590135 | 5.48E+00 | 3.61E-05 | 1.34E+00 | 3.61E-05 | 8.21E-02 | 1.43E-05 | 3.98E-03 | 1.30E-06 |
| 590136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 590147 | 6.34E-04 | 2.66E-07 | 6.34E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590157 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590167 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590177 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590187 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590197 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 590207 | 6.33E-04 | 2.66E-07 | 6.33E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 591108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591113 | 9.11E+01 | 3.61E-05 | 2.14E+01 | 3.61E-05 | 1.03E+00 | 1.43E-05 | 5.70E-02 | 1.30E-06 |
| 591114 | 1.34E+02 | 3.61E-05 | 3.16E+01 | 3.61E-05 | 1.51E+00 | 1.43E-05 | 8.38E-02 | 1.30E-06 |
| 591115 | 1.78E+02 | 3.61E-05 | 4.17E+01 | 3.61E-05 | 1.99E+00 | 1.43E-05 | 1.11E-01 | 1.30E-06 |
| 591116 | 2.23E+02 | 3.61E-05 | 5.24E+01 | 3.61E-05 | 2.49E+00 | 1.43E-05 | 1.39E-01 | 1.30E-06 |
| 591117 | 2.55E+02 | 3.63E-05 | 5.98E+01 | 3.63E-05 | 2.84E+00 | 1.44E-05 | 1.59E-01 | 1.31E-06 |
| 591118 | 2.81E+02 | 3.63E-05 | 6.59E+01 | 3.63E-05 | 3.13E+00 | 1.44E-05 | 1.75E-01 | 1.31E-06 |
| 591119 | 2.86E+02 | 3.63E-05 | 6.72E+01 | 3.63E-05 | 3.19E+00 | 1.44E-05 | 1.79E-01 | 1.31E-06 |
| 591120 | 2.87E+02 | 3.63E-05 | 6.74E+01 | 3.63E-05 | 3.21E+00 | 1.44E-05 | 1.79E-01 | 1.31E-06 |
| 591121 | 2.78E+02 | 3.63E-05 | 6.51E+01 | 3.63E-05 | 3.10E+00 | 1.44E-05 | 1.73E-01 | 1.31E-06 |
| 591122 | 1.70E+02 | 3.63E-05 | 4.02E+01 | 3.62E-05 | 1.94E+00 | 1.44E-05 | 1.12E-01 | 1.31E-06 |
| 591123 | 1.40E+02 | 3.63E-05 | 3.30E+01 | 3.62E-05 | 1.58E+00 | 1.44E-05 | 8.76E-02 | 1.31E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 591124 | 1.09E+02 | 3.63E-05 | 2.56E+01 | 3.62E-05 | 1.23E+00 | 1.44E-05 | 6.80E-02 | 1.31E-06 |
| 591125 | 1.22E+02 | 3.62E-05 | 2.86E+01 | 3.62E-05 | 1.37E+00 | 1.44E-05 | 7.59E-02 | 1.31E-06 |
| 591126 | 1.23E+02 | 3.62E-05 | 2.88E+01 | 3.62E-05 | 1.38E+00 | 1.44E-05 | 7.66E-02 | 1.31E-06 |
| 591127 | 9.78E+01 | 3.62E-05 | 2.30E+01 | 3.62E-05 | 1.10E+00 | 1.43E-05 | 6.11E-02 | 1.31E-06 |
| 591128 | 7.00E+01 | 3.62E-05 | 1.65E+01 | 3.62E-05 | 7.97E-01 | 1.43E-05 | 4.39E-02 | 1.31E-06 |
| 591129 | 5.29E+01 | 3.62E-05 | 1.25E+01 | 3.62E-05 | 6.07E-01 | 1.43E-05 | 3.33E-02 | 1.31E-06 |
| 591130 | 4.33E+01 | 3.62E-05 | 1.02E+01 | 3.62E-05 | 5.00E-01 | 1.43E-05 | 2.74E-02 | 1.31E-06 |
| 591131 | 3.35E+01 | 3.61E-05 | 7.88E+00 | 3.61E-05 | 3.92E-01 | 1.43E-05 | 2.13E-02 | 1.30E-06 |
| 591132 | 2.42E+01 | 3.61E-05 | 5.73E+00 | 3.61E-05 | 2.90E-01 | 1.43E-05 | 1.56E-02 | 1.30E-06 |
| 591133 | 1.67E+01 | 3.61E-05 | 3.96E+00 | 3.61E-05 | 2.06E-01 | 1.43E-05 | 1.09E-02 | 1.30E-06 |
| 591134 | 1.09E+01 | 3.61E-05 | 2.60E+00 | 3.61E-05 | 1.42E-01 | 1.43E-05 | 7.34E-03 | 1.30E-06 |
| 591135 | 1.33E+01 | 3.61E-05 | 3.16E+00 | 3.61E-05 | 1.68E-01 | 1.43E-05 | 8.82E-03 | 1.30E-06 |
| 591136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 591146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592113 | 5.78E+01 | 3.61E-05 | 1.36E+01 | 3.61E-05 | 6.62E-01 | 1.43E-05 | 3.64E-02 | 1.30E-06 |
| 592114 | 8.34E+01 | 3.61E-05 | 1.96E+01 | 3.61E-05 | 9.45E-01 | 1.43E-05 | 5.22E-02 | 1.30E-06 |
| 592115 | 1.13E+02 | 3.61E-05 | 2.66E+01 | 3.61E-05 | 1.27E+00 | 1.43E-05 | 7.08E-02 | 1.30E-06 |
| 592116 | 1.44E+02 | 1.67E-03 | 3.38E+01 | 1.67E-03 | 1.61E+00 | 3.26E-04 | 8.97E-02 | 1.77E-05 |
| 592117 | 1.71E+02 | 3.63E-05 | 4.03E+01 | 3.63E-05 | 1.92E+00 | 1.44E-05 | 1.07E-01 | 1.31E-06 |
| 592118 | 1.90E+02 | 3.64E-05 | 4.47E+01 | 3.63E-05 | 2.13E+00 | 1.44E-05 | 1.19E-01 | 1.31E-06 |
| 592119 | 2.04E+02 | 3.64E-05 | 4.78E+01 | 3.63E-05 | 2.28E+00 | 1.44E-05 | 1.27E-01 | 1.31E-06 |
| 592120 | 2.06E+02 | 3.64E-05 | 4.83E+01 | 3.63E-05 | 2.30E+00 | 1.44E-05 | 1.29E-01 | 1.31E-06 |
| 592121 | 2.03E+02 | 3.63E-05 | 4.76E+01 | 3.63E-05 | 2.26E+00 | 1.44E-05 | 1.27E-01 | 1.31E-06 |
| 592122 | 1.98E+02 | 3.63E-05 | 4.65E+01 | 3.63E-05 | 2.22E+00 | 1.44E-05 | 1.24E-01 | 1.31E-06 |
| 592123 | 7.84E+01 | 3.63E-05 | 1.84E+01 | 3.63E-05 | 8.89E-01 | 1.44E-05 | 4.91E-02 | 1.31E-06 |
| 592124 | 1.30E+02 | 3.63E-05 | 3.05E+01 | 3.63E-05 | 1.46E+00 | 1.44E-05 | 8.11E-02 | 1.31E-06 |
| 592125 | 1.39E+02 | 3.63E-05 | 3.26E+01 | 3.63E-05 | 1.56E+00 | 1.44E-05 | 8.66E-02 | 1.31E-06 |
| 592126 | 1.17E+02 | 3.63E-05 | 2.75E+01 | 3.62E-05 | 1.32E+00 | 1.44E-05 | 7.32E-02 | 1.31E-06 |
| 592127 | 8.83E+01 | 3.63E-05 | 2.08E+01 | 3.62E-05 | 1.00E+00 | 1.44E-05 | 5.53E-02 | 1.31E-06 |
| 592128 | 7.08E+01 | 3.62E-05 | 1.66E+01 | 3.62E-05 | 8.03E-01 | 1.44E-05 | 4.43E-02 | 1.31E-06 |
| 592129 | 6.11E+01 | 3.62E-05 | 1.44E+01 | 3.62E-05 | 6.99E-01 | 1.43E-05 | 3.84E-02 | 1.31E-06 |
| 592130 | 4.98E+01 | 3.62E-05 | 1.17E+01 | 3.62E-05 | 5.73E-01 | 1.43E-05 | 3.14E-02 | 1.31E-06 |
| 592131 | 3.85E+01 | 3.61E-05 | 9.05E+00 | 3.61E-05 | 4.47E-01 | 1.43E-05 | 2.44E-02 | 1.30E-06 |
| 592132 | 2.82E+01 | 3.61E-05 | 6.65E+00 | 3.61E-05 | 3.33E-01 | 1.43E-05 | 1.80E-02 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 592133 | 1.93E+01 | 3.61E-05 | 4.57E+00 | 3.61E-05 | 2.35E-01 | 1.43E-05 | 1.25E-02 | 1.30E-06 |
| 592134 | 1.25E+01 | 3.61E-05 | 2.97E+00 | 3.61E-05 | 1.59E-01 | 1.43E-05 | 8.30E-03 | 1.30E-06 |
| 592135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 592146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593113 | 3.23E+01 | 3.61E-05 | 7.62E+00 | 3.61E-05 | 3.79E-01 | 1.43E-05 | 2.06E-02 | 1.30E-06 |
| 593114 | 5.01E+01 | 3.61E-05 | 1.18E+01 | 3.61E-05 | 5.76E-01 | 1.43E-05 | 3.16E-02 | 1.30E-06 |
| 593115 | 6.89E+01 | 3.61E-05 | 1.62E+01 | 3.61E-05 | 7.85E-01 | 1.43E-05 | 4.33E-02 | 1.30E-06 |
| 593116 | 9.00E+01 | 1.66E-03 | 2.12E+01 | 1.66E-03 | 1.02E+00 | 3.17E-04 | 5.63E-02 | 1.71E-05 |
| 593117 | 1.07E+02 | 3.64E-05 | 2.52E+01 | 3.63E-05 | 1.21E+00 | 1.44E-05 | 6.70E-02 | 1.31E-06 |
| 593118 | 1.26E+02 | 3.64E-05 | 2.96E+01 | 3.63E-05 | 1.42E+00 | 1.44E-05 | 7.87E-02 | 1.31E-06 |
| 593119 | 1.34E+02 | 3.64E-05 | 3.16E+01 | 3.64E-05 | 1.51E+00 | 1.44E-05 | 8.38E-02 | 1.31E-06 |
| 593120 | 1.43E+02 | 3.64E-05 | 3.36E+01 | 3.64E-05 | 1.61E+00 | 1.44E-05 | 8.94E-02 | 1.31E-06 |
| 593121 | 1.44E+02 | 3.64E-05 | 3.38E+01 | 3.64E-05 | 1.61E+00 | 1.44E-05 | 8.97E-02 | 1.31E-06 |
| 593122 | 1.40E+02 | 3.64E-05 | 3.29E+01 | 3.64E-05 | 1.57E+00 | 1.44E-05 | 8.73E-02 | 1.31E-06 |
| 593123 | 4.23E+01 | 3.64E-05 | 9.96E+00 | 3.63E-05 | 4.90E-01 | 1.44E-05 | 2.68E-02 | 1.31E-06 |
| 593124 | 1.39E+02 | 3.64E-05 | 3.27E+01 | 3.63E-05 | 1.56E+00 | 1.44E-05 | 8.69E-02 | 1.31E-06 |
| 593125 | 1.24E+02 | 3.64E-05 | 2.92E+01 | 3.63E-05 | 1.40E+00 | 1.44E-05 | 7.77E-02 | 1.31E-06 |
| 593126 | 9.94E+01 | 3.63E-05 | 2.34E+01 | 3.63E-05 | 1.12E+00 | 1.44E-05 | 6.22E-02 | 1.31E-06 |
| 593127 | 8.39E+01 | 3.63E-05 | 1.97E+01 | 3.63E-05 | 9.51E-01 | 1.44E-05 | 5.25E-02 | 1.31E-06 |
| 593128 | 7.67E+01 | 3.63E-05 | 1.80E+01 | 3.62E-05 | 8.71E-01 | 1.44E-05 | 4.81E-02 | 1.31E-06 |
| 593129 | 6.67E+01 | 3.63E-05 | 1.57E+01 | 3.62E-05 | 7.60E-01 | 1.44E-05 | 4.19E-02 | 1.31E-06 |
| 593130 | 5.47E+01 | 3.62E-05 | 1.29E+01 | 3.62E-05 | 6.27E-01 | 1.44E-05 | 3.44E-02 | 1.31E-06 |
| 593131 | 4.21E+01 | 3.61E-05 | 9.90E+00 | 3.61E-05 | 4.87E-01 | 1.43E-05 | 2.66E-02 | 1.30E-06 |
| 593132 | 3.04E+01 | 3.61E-05 | 7.17E+00 | 3.61E-05 | 3.58E-01 | 1.43E-05 | 1.94E-02 | 1.30E-06 |
| 593133 | 2.10E+01 | 3.61E-05 | 4.97E+00 | 3.61E-05 | 2.54E-01 | 1.43E-05 | 1.36E-02 | 1.30E-06 |
| 593134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 593142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 593146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594113 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |
| 594114 | 2.77E+01 | 3.61E-05 | 6.54E+00 | 3.61E-05 | 3.28E-01 | 1.43E-05 | 1.77E-02 | 1.30E-06 |
| 594115 | 8.18E+01 | 1.04E-04 | 5.19E+01 | 1.04E-04 | 3.97E+00 | 2.72E-05 | 8.47E-01 | 3.05E-06 |
| 594116 | 5.19E+01 | 2.21E-01 | 1.22E+01 | 2.21E-01 | 5.96E-01 | 2.17E-02 | 3.27E-02 | 1.42E-03 |
| 594117 | 6.61E+01 | 3.64E-05 | 1.56E+01 | 3.63E-05 | 7.54E-01 | 1.44E-05 | 4.15E-02 | 1.31E-06 |
| 594118 | 7.67E+01 | 3.64E-05 | 1.80E+01 | 3.64E-05 | 8.71E-01 | 1.44E-05 | 4.81E-02 | 1.31E-06 |
| 594119 | 8.67E+01 | 3.64E-05 | 2.04E+01 | 3.64E-05 | 9.81E-01 | 1.44E-05 | 5.43E-02 | 1.31E-06 |
| 594120 | 9.22E+01 | 3.64E-05 | 2.17E+01 | 3.64E-05 | 1.04E+00 | 1.44E-05 | 5.77E-02 | 1.31E-06 |
| 594121 | 9.56E+01 | 3.65E-05 | 2.25E+01 | 3.64E-05 | 1.08E+00 | 1.44E-05 | 5.98E-02 | 1.31E-06 |
| 594122 | 1.00E+02 | 3.65E-05 | 2.36E+01 | 3.64E-05 | 1.13E+00 | 1.44E-05 | 6.29E-02 | 1.31E-06 |
| 594123 | 1.24E+02 | 3.65E-05 | 2.91E+01 | 3.64E-05 | 1.39E+00 | 1.44E-05 | 7.73E-02 | 1.31E-06 |
| 594124 | 1.17E+02 | 3.64E-05 | 2.75E+01 | 3.64E-05 | 1.32E+00 | 1.44E-05 | 7.32E-02 | 1.31E-06 |
| 594125 | 9.94E+01 | 3.64E-05 | 2.34E+01 | 3.64E-05 | 1.12E+00 | 1.44E-05 | 6.22E-02 | 1.31E-06 |
| 594126 | 8.89E+01 | 3.64E-05 | 2.09E+01 | 3.63E-05 | 1.01E+00 | 1.44E-05 | 5.56E-02 | 1.31E-06 |
| 594127 | 8.61E+01 | 3.64E-05 | 2.02E+01 | 3.63E-05 | 9.75E-01 | 1.44E-05 | 5.39E-02 | 1.31E-06 |
| 594128 | 7.95E+01 | 3.63E-05 | 1.87E+01 | 3.63E-05 | 9.01E-01 | 1.44E-05 | 4.98E-02 | 1.31E-06 |
| 594129 | 6.84E+01 | 3.63E-05 | 1.61E+01 | 3.63E-05 | 7.78E-01 | 1.44E-05 | 4.29E-02 | 1.31E-06 |
| 594130 | 5.62E+01 | 3.64E-05 | 1.32E+01 | 3.64E-05 | 6.43E-01 | 1.44E-05 | 3.53E-02 | 1.31E-06 |
| 594131 | 4.32E+01 | 3.61E-05 | 1.02E+01 | 3.61E-05 | 5.00E-01 | 1.43E-05 | 2.73E-02 | 1.30E-06 |
| 594132 | 3.15E+01 | 3.61E-05 | 7.42E+00 | 3.61E-05 | 3.69E-01 | 1.43E-05 | 2.00E-02 | 1.30E-06 |
| 594133 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 594146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |
| 595109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |
| 595110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |
| 595111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 595112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |
| 595113 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.33E-04 | 1.30E-06 |
| 595114 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595115 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595116 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595117 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595118 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595119 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595120 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595121 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595122 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595123 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595124 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595125 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595126 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595127 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595128 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595129 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595130 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595131 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595132 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595133 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 595146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596113 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596114 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596115 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596116 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596117 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596118 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596119 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596120 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 596121 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596122 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596123 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596124 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596125 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596126 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596127 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596128 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596129 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596130 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596131 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596132 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596133 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 596146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597113 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597114 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597115 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597116 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597117 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597118 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597119 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597120 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597121 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597122 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597123 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597124 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597125 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597126 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597127 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597128 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597129 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 597130 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597131 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597132 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597133 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 597146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598113 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598114 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598115 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598116 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598117 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598118 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598119 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598120 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598121 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598122 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598123 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598124 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598125 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598126 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598127 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598128 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598129 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598130 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598131 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598132 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598133 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 598139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 598146 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599108 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599109 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599110 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599111 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599112 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599113 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599114 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599115 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599116 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599117 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599118 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599119 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599120 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599121 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599122 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599123 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599124 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599125 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599126 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599127 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599128 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599129 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599130 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599131 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599132 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599133 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599134 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599135 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599136 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599137 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599138 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599139 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599140 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599141 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599142 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599143 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599144 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599145 | 6.63E-02 | 3.61E-05 | 6.63E-02 | 3.61E-05 | 2.22E-02 | 1.43E-05 | 6.27E-04 | 1.30E-06 |
| 599146 | 1.33E-01 | 7.23E-05 | 1.33E-01 | 7.23E-05 | 4.45E-02 | 2.87E-05 | 1.26E-03 | 2.62E-06 |
| 600057 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 600067 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600077 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600087 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600097 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600107 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600117 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600127 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600137 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600147 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600157 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600167 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600177 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600187 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600197 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 600207 | 6.37E-04 | 2.66E-07 | 6.37E-04 | 2.66E-07 | 3.70E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610057 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610067 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610077 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610087 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610097 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610107 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610117 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610127 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610137 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610147 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610157 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610167 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610177 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610187 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610197 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 610207 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620057 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620067 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620077 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620087 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620097 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620107 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620117 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620127 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620137 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620147 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620157 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620167 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620177 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620187 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620197 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 620207 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630057 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |

*Table B5-5. Statistical Increase in Individual Cancer Risk at T140 (year 2129). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 630067 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630077 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630087 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630097 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630107 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630117 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630127 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630137 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630147 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630157 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630167 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630177 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630187 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630197 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 630207 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640057 | 1.42E-03 | 5.32E-07 | 1.42E-03 | 5.32E-07 | 7.42E-04 | 2.11E-07 | 2.08E-05 | 1.89E-08 |
| 640067 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640077 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640087 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640097 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640107 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640117 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640127 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640137 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640147 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640157 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640167 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640177 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640187 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640197 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |
| 640207 | 7.10E-04 | 2.66E-07 | 7.10E-04 | 2.66E-07 | 3.71E-04 | 1.06E-07 | 1.04E-05 | 9.47E-09 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 490057 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 490067 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 490077 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 490087 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 490097 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490107 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490117 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490127 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490137 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490147 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490157 | 2.86E-06 | 1.28E-08 | 2.86E-06 | 1.28E-08 | 3.80E-08 | 5.13E-09 | 2.04E-09 | 4.70E-10 |
| 490167 | 0.00E+00 | 2.60E-13 | 0.00E+00 | 2.59E-13 | 0.00E+00 | 5.66E-14 | 0.00E+00 | 5.18E-15 |
| 490177 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 500057 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500067 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500077 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500087 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500097 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500107 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500117 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500127 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500137 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500147 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500157 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 500167 | 3.32E-06 | 1.36E-08 | 3.32E-06 | 1.36E-08 | 1.36E-07 | 5.47E-09 | 4.83E-09 | 5.00E-10 |
| 500177 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 500187 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 500197 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 500207 | 3.18E-06 | 1.28E-08 | 3.18E-06 | 1.28E-08 | 3.92E-08 | 5.13E-09 | 2.13E-09 | 4.70E-10 |
| 510057 | 4.35E-06 | 1.36E-08 | 4.35E-06 | 1.36E-08 | 2.10E-07 | 5.47E-09 | 7.03E-09 | 5.00E-10 |
| 510067 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510077 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510087 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510097 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510107 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510117 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510127 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510137 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510147 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510157 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510167 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510177 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510187 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510197 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 510207 | 3.42E-06 | 1.36E-08 | 3.42E-06 | 1.36E-08 | 2.06E-07 | 5.47E-09 | 6.80E-09 | 5.00E-10 |
| 520057 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520067 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520077 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 520087 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520097 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520107 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520117 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520127 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520137 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520147 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520157 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 520167 | 4.35E-06 | 1.36E-08 | 4.35E-06 | 1.36E-08 | 2.10E-07 | 5.47E-09 | 7.03E-09 | 5.00E-10 |
| 520177 | 4.35E-06 | 1.36E-08 | 4.35E-06 | 1.36E-08 | 2.10E-07 | 5.47E-09 | 7.03E-09 | 5.00E-10 |
| 520187 | 4.35E-06 | 1.36E-08 | 4.35E-06 | 1.36E-08 | 2.10E-07 | 5.47E-09 | 7.03E-09 | 5.00E-10 |
| 520197 | 4.35E-06 | 1.36E-08 | 4.35E-06 | 1.36E-08 | 2.10E-07 | 5.47E-09 | 7.03E-09 | 5.00E-10 |
| 520207 | 4.35E-06 | 1.36E-08 | 4.35E-06 | 1.36E-08 | 2.10E-07 | 5.47E-09 | 7.03E-09 | 5.00E-10 |
| 530057 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530067 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530077 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530087 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530097 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530107 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530117 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530127 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530137 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530147 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530157 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530167 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530177 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530187 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530197 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 530207 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 540057 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540067 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540077 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540087 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540097 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540107 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540117 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540127 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540137 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540147 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 540157 | 9.03E-06 | 1.36E-08 | 9.03E-06 | 1.36E-08 | 2.91E-07 | 5.47E-09 | 1.22E-08 | 5.00E-10 |
| 540167 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 540177 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 540187 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 540197 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 540207 | 5.55E-06 | 1.36E-08 | 5.55E-06 | 1.36E-08 | 2.14E-07 | 5.47E-09 | 7.33E-09 | 5.00E-10 |
| 550057 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 550067 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 550077 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 550087 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550097 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550107 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550117 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550127 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550137 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550147 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550157 | 2.66E-05 | 6.56E-08 | 2.66E-05 | 6.56E-08 | 6.76E-07 | 2.62E-08 | 2.55E-08 | 2.40E-09 |
| 550167 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 550177 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 550187 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 550197 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 550207 | 2.61E-05 | 6.21E-08 | 2.61E-05 | 6.21E-08 | 3.55E-07 | 2.49E-08 | 1.65E-08 | 2.28E-09 |
| 560057 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560067 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560077 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560087 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560097 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560107 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560117 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 560157 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 560167 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 560177 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 560187 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 560197 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 560207 | 2.82E-05 | 6.56E-08 | 2.82E-05 | 6.56E-08 | 6.82E-07 | 2.62E-08 | 2.59E-08 | 2.40E-09 |
| 561128 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561129 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561130 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561131 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561132 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561133 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561134 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561135 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561136 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561137 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561138 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561139 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561140 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561141 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561142 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561143 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561144 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561145 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561146 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561147 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561148 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561149 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 561150 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561151 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561152 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561153 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561154 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561155 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 561156 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 562128 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 562129 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 562130 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 562131 | 6.71E-04 | 1.19E-06 | 6.71E-04 | 1.19E-06 | 4.76E-06 | 4.75E-07 | 2.85E-07 | 4.37E-08 |
| 562132 | 6.71E-04 | 6.28E-06 | 6.71E-04 | 6.28E-06 | 4.76E-06 | 2.52E-06 | 2.85E-07 | 2.32E-07 |
| 562133 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562134 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562135 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562136 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562137 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562138 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562139 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562140 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562141 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562142 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562143 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562144 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562145 | 1.14E+00 | 3.14E-05 | 1.13E+00 | 3.14E-05 | 8.39E-01 | 1.27E-05 | 2.56E-02 | 7.44E-07 |
| 562146 | 1.39E+00 | 3.27E-05 | 1.29E+00 | 3.27E-05 | 9.08E-01 | 1.32E-05 | 2.84E-02 | 7.71E-07 |
| 562147 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562148 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562149 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562150 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562151 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562152 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562153 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562154 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562155 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 562156 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 563128 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 563129 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 563130 | 1.03E-03 | 6.28E-06 | 1.03E-03 | 6.28E-06 | 1.02E-05 | 2.52E-06 | 7.15E-07 | 2.32E-07 |
| 563131 | 1.03E-03 | 6.30E-06 | 1.03E-03 | 6.30E-06 | 1.02E-05 | 2.53E-06 | 7.15E-07 | 2.32E-07 |
| 563132 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563133 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563134 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563135 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563136 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563137 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563138 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563139 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 563140 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563141 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563142 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563143 | 1.22E+00 | 3.34E-05 | 1.22E+00 | 3.34E-05 | 9.04E-01 | 1.35E-05 | 2.76E-02 | 7.85E-07 |
| 563144 | 1.81E+00 | 4.11E-05 | 1.69E+00 | 4.11E-05 | 1.19E+00 | 1.66E-05 | 3.70E-02 | 9.39E-07 |
| 563145 | 2.14E+00 | 4.77E-05 | 2.00E+00 | 4.77E-05 | 1.42E+00 | 1.92E-05 | 4.40E-02 | 1.07E-06 |
| 563146 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563147 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563148 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563149 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563150 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563151 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563152 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563153 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563154 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563155 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 563156 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564128 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564129 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564130 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564131 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564132 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564133 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564134 | 4.35E-03 | 6.30E-06 | 4.35E-03 | 6.30E-06 | 2.24E-05 | 2.53E-06 | 1.55E-06 | 2.32E-07 |
| 564135 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564136 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564137 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564138 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564139 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564140 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564141 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564142 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564143 | 2.13E+00 | 4.83E-05 | 2.00E+00 | 4.83E-05 | 1.43E+00 | 1.95E-05 | 4.43E-02 | 1.09E-06 |
| 564144 | 2.64E+00 | 5.80E-05 | 2.48E+00 | 5.80E-05 | 1.76E+00 | 2.35E-05 | 5.47E-02 | 1.28E-06 |
| 564145 | 3.31E+00 | 7.14E-05 | 3.12E+00 | 7.14E-05 | 2.22E+00 | 2.89E-05 | 6.88E-02 | 1.56E-06 |
| 564146 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564147 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564148 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564149 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564150 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564151 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564152 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564153 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564154 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564155 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 564156 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 565128 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 565129 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 565130 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.24E-05 | 2.55E-06 | 1.55E-06 | 2.34E-07 |
| 565131 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.36E-05 | 2.55E-06 | 1.58E-06 | 2.34E-07 |
| 565132 | 4.35E-03 | 6.36E-06 | 4.35E-03 | 6.36E-06 | 2.52E-05 | 2.55E-06 | 1.63E-06 | 2.34E-07 |
| 565133 | 4.35E-03 | 3.30E-05 | 4.35E-03 | 3.30E-05 | 2.52E-05 | 1.32E-05 | 1.63E-06 | 1.22E-06 |
| 565134 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565135 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565136 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565137 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565138 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565139 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565140 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565141 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565142 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565143 | 3.09E+00 | 9.53E-05 | 2.95E+00 | 9.53E-05 | 2.12E+00 | 3.85E-05 | 6.54E-02 | 2.49E-06 |
| 565144 | 5.46E+00 | 1.42E-04 | 5.18E+00 | 1.42E-04 | 3.70E+00 | 5.73E-05 | 1.15E-01 | 3.44E-06 |
| 565145 | 6.49E+01 | 1.35E-03 | 6.13E+01 | 1.35E-03 | 4.40E+01 | 5.46E-04 | 1.35E+00 | 2.79E-05 |
| 565146 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565147 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565148 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565149 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565150 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565151 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565152 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565153 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565154 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565155 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 565156 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 566128 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 566129 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 566130 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 566131 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.32E-05 | 3.87E-06 | 1.22E-06 |
| 566132 | 6.25E-03 | 3.30E-05 | 6.25E-03 | 3.30E-05 | 5.29E-05 | 1.33E-05 | 3.87E-06 | 1.22E-06 |
| 566133 | 2.99E-02 | 3.11E-03 | 2.99E-02 | 3.11E-03 | 1.40E-04 | 1.80E-03 | 9.83E-06 | 1.16E-04 |
| 566134 | 3.00E-02 | 2.70E-02 | 3.00E-02 | 2.70E-02 | 1.52E-04 | 1.57E-02 | 1.13E-05 | 1.01E-03 |
| 566135 | 2.53E+00 | 2.95E-01 | 2.53E+00 | 2.95E-01 | 2.71E-01 | 1.71E-01 | 5.00E-02 | 1.10E-02 |
| 566136 | 9.40E+00 | 1.00E+00 | 9.40E+00 | 1.00E+00 | 1.80E+00 | 7.29E-01 | 2.07E-01 | 4.68E-02 |
| 566137 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566138 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566139 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566140 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566142 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566143 | 7.72E+00 | 1.89E-04 | 7.36E+00 | 1.89E-04 | 5.28E+00 | 7.63E-05 | 1.63E-01 | 4.39E-06 |
| 566144 | 1.63E+02 | 3.30E-03 | 1.55E+02 | 3.30E-03 | 1.11E+02 | 1.33E-03 | 3.42E+00 | 6.76E-05 |
| 566145 | 1.96E+03 | 3.78E-02 | 1.85E+03 | 3.78E-02 | 1.33E+03 | 1.56E-02 | 4.10E+01 | 7.98E-04 |
| 566146 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566147 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566148 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 566149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 566156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567133 | 2.99E-02 | 5.92E-04 | 2.99E-02 | 5.92E-04 | 1.40E-04 | 3.39E-04 | 9.83E-06 | 2.21E-05 |
| 567134 | 2.99E-02 | 2.69E-03 | 2.99E-02 | 2.68E-03 | 1.40E-04 | 1.51E-03 | 9.83E-06 | 9.73E-05 |
| 567135 | 2.26E+02 | 4.56E-03 | 2.14E+02 | 4.56E-03 | 1.54E+02 | 1.84E-03 | 4.74E+00 | 9.32E-05 |
| 567136 | 1.57E-01 | 1.71E-02 | 1.57E-01 | 1.64E-02 | 1.95E-02 | 6.50E-03 | 2.51E-03 | 4.18E-04 |
| 567137 | 2.99E-02 | 6.35E-03 | 2.99E-02 | 6.35E-03 | 1.40E-04 | 3.68E-03 | 9.83E-06 | 2.37E-04 |
| 567138 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567139 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567140 | 2.85E+00 | 9.29E-05 | 2.79E+00 | 9.29E-05 | 2.01E+00 | 3.75E-05 | 6.18E-02 | 2.44E-06 |
| 567141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567142 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567143 | 3.89E+02 | 8.97E-03 | 3.68E+02 | 8.78E-03 | 2.64E+02 | 3.40E-03 | 8.13E+00 | 1.77E-04 |
| 567144 | 4.21E+03 | 7.87E-02 | 3.98E+03 | 7.85E-02 | 2.86E+03 | 3.32E-02 | 8.81E+01 | 1.73E-03 |
| 567145 | 1.40E+04 | 2.18E-01 | 1.33E+04 | 2.18E-01 | 9.52E+03 | 1.02E-01 | 2.94E+02 | 5.72E-03 |
| 567146 | 1.91E+04 | 2.73E-01 | 1.80E+04 | 2.73E-01 | 1.30E+04 | 1.34E-01 | 3.99E+02 | 7.77E-03 |
| 567147 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567148 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 567156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568133 | 3.08E-02 | 3.30E-05 | 3.02E-02 | 3.30E-05 | 1.70E-04 | 1.33E-05 | 1.13E-05 | 1.22E-06 |
| 568134 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568135 | 4.59E+01 | 9.50E-04 | 4.34E+01 | 9.50E-04 | 3.11E+01 | 3.83E-04 | 9.59E-01 | 1.98E-05 |
| 568136 | 3.03E-02 | 1.07E-02 | 3.03E-02 | 9.48E-03 | 3.81E-04 | 2.49E-04 | 1.72E-05 | 1.81E-05 |
| 568137 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.41E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568138 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 568139 | 2.80E+00 | 9.29E-05 | 2.76E+00 | 9.29E-05 | 2.01E+00 | 3.75E-05 | 6.15E-02 | 2.44E-06 |
| 568140 | 4.09E+00 | 1.15E-03 | 4.01E+00 | 9.83E-04 | 2.92E+00 | 2.70E-04 | 8.95E-02 | 1.86E-05 |
| 568141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568142 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568143 | 9.10E+03 | 1.54E-01 | 8.60E+03 | 1.54E-01 | 6.17E+03 | 6.88E-02 | 1.90E+02 | 3.72E-03 |
| 568144 | 2.07E+04 | 2.89E-01 | 1.96E+04 | 2.89E-01 | 1.41E+04 | 1.43E-01 | 4.34E+02 | 8.46E-03 |
| 568145 | 1.81E+04 | 2.63E-01 | 1.71E+04 | 2.63E-01 | 1.23E+04 | 1.27E-01 | 3.77E+02 | 7.37E-03 |
| 568146 | 8.01E+03 | 1.39E-01 | 7.58E+03 | 1.39E-01 | 5.43E+03 | 6.11E-02 | 1.68E+02 | 3.29E-03 |
| 568147 | 1.86E+03 | 3.77E-02 | 1.76E+03 | 3.74E-02 | 1.27E+03 | 1.52E-02 | 3.90E+01 | 7.86E-04 |
| 568148 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 568156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.41E-04 | 1.33E-05 | 9.84E-06 | 1.22E-06 |
| 569133 | 3.06E-02 | 3.30E-05 | 3.01E-02 | 3.30E-05 | 1.64E-04 | 1.33E-05 | 1.11E-05 | 1.22E-06 |
| 569134 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569135 | 2.24E+01 | 4.81E-04 | 2.12E+01 | 4.81E-04 | 1.52E+01 | 1.94E-04 | 4.68E-01 | 1.03E-05 |
| 569136 | 2.71E+02 | 5.67E-03 | 2.57E+02 | 5.65E-03 | 1.84E+02 | 2.21E-03 | 5.66E+00 | 1.12E-04 |
| 569137 | 5.97E-01 | 7.13E-05 | 5.94E-01 | 6.82E-05 | 4.19E-01 | 1.89E-05 | 1.28E-02 | 1.52E-06 |
| 569138 | 1.10E+00 | 6.92E-04 | 1.10E+00 | 5.91E-04 | 7.87E-01 | 1.60E-04 | 2.40E-02 | 1.14E-05 |
| 569139 | 3.80E+00 | 1.07E-03 | 3.75E+00 | 9.13E-04 | 2.74E+00 | 2.52E-04 | 8.38E-02 | 1.73E-05 |
| 569140 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569142 | 1.82E+04 | 2.64E-01 | 1.72E+04 | 2.64E-01 | 1.24E+04 | 1.28E-01 | 3.80E+02 | 7.42E-03 |
| 569143 | 2.38E+04 | 3.17E-01 | 2.25E+04 | 3.17E-01 | 1.62E+04 | 1.61E-01 | 4.98E+02 | 9.72E-03 |
| 569144 | 1.14E+04 | 1.85E-01 | 1.07E+04 | 1.85E-01 | 7.69E+03 | 8.41E-02 | 2.36E+02 | 4.63E-03 |
| 569145 | 2.76E+03 | 5.43E-02 | 2.61E+03 | 5.39E-02 | 1.87E+03 | 2.22E-02 | 5.76E+01 | 1.15E-03 |
| 569146 | 4.54E+02 | 1.12E-02 | 4.30E+02 | 1.08E-02 | 3.07E+02 | 4.13E-03 | 9.48E+00 | 2.18E-04 |
| 569147 | 6.09E+01 | 3.52E-03 | 5.77E+01 | 3.17E-03 | 4.14E+01 | 1.01E-03 | 1.27E+00 | 6.07E-05 |
| 569148 | 5.67E+00 | 2.27E-03 | 5.36E+00 | 1.93E-03 | 3.80E+00 | 5.17E-04 | 1.18E-01 | 3.58E-05 |
| 569149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 569156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 570057 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 570067 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 570077 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 570087 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 570097 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 570107 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 570117 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 570128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 570129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 570130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 570131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.40E-04 | 1.33E-05 | 9.83E-06 | 1.22E-06 |
| 570132 | 3.00E-02 | 3.30E-05 | 3.00E-02 | 3.30E-05 | 1.43E-04 | 1.33E-05 | 9.91E-06 | 1.22E-06 |
| 570133 | 3.00E-02 | 3.30E-05 | 3.00E-02 | 3.30E-05 | 1.47E-04 | 1.33E-05 | 1.01E-05 | 1.22E-06 |
| 570134 | 3.00E-02 | 3.30E-05 | 3.00E-02 | 3.30E-05 | 1.58E-04 | 1.33E-05 | 1.04E-05 | 1.22E-06 |
| 570135 | 1.32E+01 | 2.97E-04 | 1.25E+01 | 2.97E-04 | 8.97E+00 | 1.20E-04 | 2.76E-01 | 6.60E-06 |
| 570136 | 1.89E+04 | 2.70E-01 | 1.79E+04 | 2.70E-01 | 1.28E+04 | 1.32E-01 | 3.95E+02 | 7.69E-03 |
| 570137 | 2.16E+00 | 5.63E-04 | 2.08E+00 | 4.85E-04 | 1.48E+00 | 1.35E-04 | 4.55E-02 | 9.45E-06 |
| 570138 | 4.31E+01 | 1.67E-03 | 4.09E+01 | 1.55E-03 | 2.94E+01 | 5.31E-04 | 9.04E-01 | 3.07E-05 |
| 570139 | 4.63E+00 | 1.26E-03 | 4.52E+00 | 1.08E-03 | 3.27E+00 | 2.96E-04 | 1.00E-01 | 2.05E-05 |
| 570140 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570141 | 2.92E+04 | 3.58E-01 | 2.76E+04 | 3.58E-01 | 1.98E+04 | 1.90E-01 | 6.10E+02 | 1.18E-02 |
| 570142 | 1.71E+04 | 2.53E-01 | 1.61E+04 | 2.52E-01 | 1.16E+04 | 1.21E-01 | 3.57E+02 | 6.97E-03 |
| 570143 | 3.56E+03 | 6.86E-02 | 3.37E+03 | 6.83E-02 | 2.42E+03 | 2.85E-02 | 7.45E+01 | 1.48E-03 |
| 570144 | 4.14E+02 | 1.05E-02 | 3.92E+02 | 1.01E-02 | 2.81E+02 | 3.84E-03 | 8.66E+00 | 2.03E-04 |
| 570145 | 3.91E+01 | 3.31E-03 | 3.70E+01 | 2.91E-03 | 2.66E+01 | 8.69E-04 | 8.18E-01 | 5.52E-05 |
| 570146 | 6.58E+00 | 2.70E-03 | 6.27E+00 | 2.30E-03 | 4.48E+00 | 6.15E-04 | 1.38E-01 | 4.26E-05 |
| 570147 | 3.51E+00 | 2.63E-03 | 3.32E+00 | 2.22E-03 | 2.34E+00 | 5.87E-04 | 7.29E-02 | 4.10E-05 |
| 570148 | 2.70E+00 | 2.56E-03 | 2.54E+00 | 2.17E-03 | 1.77E+00 | 5.70E-04 | 5.52E-02 | 4.01E-05 |
| 570149 | 2.08E+00 | 2.47E-03 | 1.94E+00 | 2.09E-03 | 1.34E+00 | 5.47E-04 | 4.19E-02 | 3.85E-05 |
| 570150 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570151 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570152 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570153 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570154 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570155 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570156 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 570157 | 3.53E-05 | 6.57E-08 | 3.53E-05 | 6.57E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 570167 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 570177 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 570187 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 570197 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 570207 | 3.53E-05 | 6.56E-08 | 3.53E-05 | 6.56E-08 | 7.08E-07 | 2.62E-08 | 2.77E-08 | 2.40E-09 |
| 571128 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 571129 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 571130 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 571131 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.40E-04 | 1.34E-05 | 9.83E-06 | 1.23E-06 |
| 571132 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.61E-04 | 1.34E-05 | 1.05E-05 | 1.23E-06 |
| 571133 | 3.00E-02 | 3.37E-05 | 3.00E-02 | 3.36E-05 | 1.89E-04 | 1.34E-05 | 1.13E-05 | 1.24E-06 |
| 571134 | 3.10E-02 | 3.41E-05 | 3.03E-02 | 3.40E-05 | 2.52E-04 | 1.35E-05 | 1.39E-05 | 1.25E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 571135 | 3.00E-01 | 5.01E-05 | 2.98E-01 | 4.84E-05 | 1.98E-01 | 1.81E-05 | 6.07E-03 | 1.52E-06 |
| 571136 | 1.61E+01 | 6.35E-04 | 1.52E+01 | 5.90E-04 | 1.09E+01 | 2.04E-04 | 3.36E-01 | 1.20E-05 |
| 571137 | 2.24E+04 | 3.03E-01 | 2.12E+04 | 3.03E-01 | 1.52E+04 | 1.52E-01 | 4.67E+02 | 9.09E-03 |
| 571138 | 4.42E+04 | 4.45E-01 | 4.18E+04 | 4.44E-01 | 3.00E+04 | 2.59E-01 | 9.24E+02 | 1.77E-02 |
| 571139 | 1.53E+04 | 2.32E-01 | 1.45E+04 | 2.32E-01 | 1.03E+04 | 1.10E-01 | 3.19E+02 | 6.23E-03 |
| 571140 | 3.89E+03 | 7.36E-02 | 3.68E+03 | 7.34E-02 | 2.64E+03 | 3.08E-02 | 8.13E+01 | 1.61E-03 |
| 571141 | 1.50E+01 | 2.23E-03 | 1.44E+01 | 1.92E-03 | 9.68E+00 | 5.39E-04 | 2.97E-01 | 3.61E-05 |
| 571142 | 3.54E+02 | 9.30E-03 | 3.36E+02 | 8.94E-03 | 2.40E+02 | 3.33E-03 | 7.37E+00 | 1.78E-04 |
| 571143 | 2.36E+01 | 2.82E-03 | 2.26E+01 | 2.44E-03 | 1.49E+01 | 6.94E-04 | 4.58E-01 | 4.58E-05 |
| 571144 | 8.12E+00 | 2.52E-03 | 7.96E+00 | 2.14E-03 | 4.25E+00 | 5.71E-04 | 1.30E-01 | 3.96E-05 |
| 571145 | 6.31E+00 | 2.84E-03 | 6.18E+00 | 2.40E-03 | 3.19E+00 | 6.33E-04 | 9.85E-02 | 4.43E-05 |
| 571146 | 3.02E+00 | 2.87E-03 | 2.88E+00 | 2.42E-03 | 2.04E+00 | 6.37E-04 | 6.32E-02 | 4.48E-05 |
| 571147 | 2.43E+00 | 2.84E-03 | 2.29E+00 | 2.40E-03 | 1.61E+00 | 6.29E-04 | 5.00E-02 | 4.42E-05 |
| 571148 | 1.90E+00 | 2.80E-03 | 1.78E+00 | 2.36E-03 | 1.23E+00 | 6.16E-04 | 3.83E-02 | 4.35E-05 |
| 571149 | 2.85E+00 | 1.00E+00 | 2.65E+00 | 1.00E+00 | 1.83E+00 | 1.00E+00 | 5.73E-02 | 1.35E-01 |
| 571150 | 6.30E-02 | 2.51E-03 | 5.81E-02 | 2.11E-03 | 9.73E-03 | 5.48E-04 | 4.40E-04 | 3.89E-05 |
| 571151 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 571152 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 571153 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 571154 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 571155 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 571156 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572128 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572129 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572130 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572131 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572132 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 2.13E-04 | 1.34E-05 | 1.20E-05 | 1.23E-06 |
| 572133 | 3.02E-02 | 3.75E-05 | 3.02E-02 | 3.68E-05 | 2.80E-04 | 1.43E-05 | 1.43E-05 | 1.30E-06 |
| 572134 | 3.07E-02 | 5.12E-05 | 3.05E-02 | 4.84E-05 | 3.84E-04 | 1.73E-05 | 1.84E-05 | 1.51E-06 |
| 572135 | 3.09E-02 | 7.80E-05 | 3.08E-02 | 7.09E-05 | 5.05E-04 | 2.30E-05 | 2.34E-05 | 1.91E-06 |
| 572136 | 6.98E-01 | 1.32E-04 | 6.94E-01 | 1.19E-04 | 4.92E-01 | 3.75E-05 | 1.50E-02 | 2.82E-06 |
| 572137 | 2.18E+00 | 6.05E-04 | 2.15E+00 | 5.20E-04 | 1.56E+00 | 1.45E-04 | 4.77E-02 | 1.02E-05 |
| 572138 | 5.28E+02 | 1.13E-02 | 5.00E+02 | 1.12E-02 | 3.58E+02 | 4.45E-03 | 1.10E+01 | 2.29E-04 |
| 572139 | 6.55E+03 | 1.17E-01 | 6.19E+03 | 1.17E-01 | 4.45E+03 | 5.04E-02 | 1.37E+02 | 2.68E-03 |
| 572140 | 7.27E+01 | 3.00E-03 | 6.90E+01 | 2.76E-03 | 4.94E+01 | 9.29E-04 | 1.53E+00 | 5.39E-05 |
| 572141 | 4.70E+00 | 1.96E-03 | 4.66E+00 | 1.66E-03 | 2.77E+00 | 4.43E-04 | 8.47E-02 | 3.09E-05 |
| 572142 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572143 | 7.32E+00 | 2.45E-03 | 7.24E+00 | 2.08E-03 | 3.47E+00 | 5.49E-04 | 1.06E-01 | 3.84E-05 |
| 572144 | 8.01E+00 | 2.49E-03 | 7.92E+00 | 2.11E-03 | 3.31E+00 | 5.56E-04 | 1.02E-01 | 3.90E-05 |
| 572145 | 6.92E+00 | 2.87E-03 | 6.83E+00 | 2.42E-03 | 2.77E+00 | 6.35E-04 | 8.53E-02 | 4.47E-05 |
| 572146 | 5.30E+00 | 2.93E-03 | 5.28E+00 | 2.47E-03 | 2.15E+00 | 6.46E-04 | 6.59E-02 | 4.55E-05 |
| 572147 | 2.23E+00 | 2.90E-03 | 2.22E+00 | 2.44E-03 | 5.27E-01 | 6.34E-04 | 1.62E-02 | 4.50E-05 |
| 572148 | 6.75E-02 | 2.87E-03 | 6.21E-02 | 2.41E-03 | 1.12E-02 | 6.26E-04 | 5.01E-04 | 4.45E-05 |
| 572149 | 6.66E-02 | 2.80E-03 | 6.13E-02 | 2.36E-03 | 1.09E-02 | 6.12E-04 | 4.89E-04 | 4.35E-05 |
| 572150 | 6.45E-02 | 2.64E-03 | 5.95E-02 | 2.22E-03 | 1.03E-02 | 5.77E-04 | 4.62E-04 | 4.10E-05 |
| 572151 | 6.21E-02 | 2.47E-03 | 5.76E-02 | 2.08E-03 | 9.60E-03 | 5.40E-04 | 4.33E-04 | 3.84E-05 |
| 572152 | 5.93E-02 | 2.26E-03 | 5.52E-02 | 1.90E-03 | 8.77E-03 | 4.93E-04 | 3.96E-04 | 3.51E-05 |
| 572153 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 572154 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572155 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 572156 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 573128 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 573129 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 573130 | 3.00E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.52E-04 | 1.34E-05 | 1.02E-05 | 1.23E-06 |
| 573131 | 3.04E-02 | 3.35E-05 | 3.04E-02 | 3.35E-05 | 4.61E-04 | 1.34E-05 | 1.96E-05 | 1.24E-06 |
| 573132 | 3.01E-02 | 3.34E-05 | 3.01E-02 | 3.34E-05 | 2.72E-04 | 1.34E-05 | 1.38E-05 | 1.23E-06 |
| 573133 | 3.05E-02 | 5.03E-05 | 3.04E-02 | 4.76E-05 | 4.22E-04 | 1.70E-05 | 1.93E-05 | 1.49E-06 |
| 573134 | 2.63E+00 | 8.69E-04 | 2.63E+00 | 8.60E-04 | 5.00E-01 | 4.80E-04 | 5.20E-02 | 3.12E-05 |
| 573135 | 3.19E-02 | 1.34E-04 | 3.16E-02 | 1.18E-04 | 8.62E-04 | 3.51E-05 | 3.74E-05 | 2.76E-06 |
| 573136 | 9.82E-02 | 1.45E-02 | 9.79E-02 | 1.45E-02 | 1.41E-02 | 8.32E-03 | 1.37E-03 | 5.34E-04 |
| 573137 | 1.05E+01 | 2.12E-02 | 1.05E+01 | 2.11E-02 | 2.04E+00 | 1.23E-02 | 2.33E-01 | 7.86E-04 |
| 573138 | 2.62E+00 | 8.31E-04 | 2.60E+00 | 7.13E-04 | 1.90E+00 | 1.96E-04 | 5.80E-02 | 1.37E-05 |
| 573139 | 3.27E+00 | 1.14E-03 | 3.24E+00 | 9.76E-04 | 2.37E+00 | 2.66E-04 | 7.24E-02 | 1.85E-05 |
| 573140 | 2.83E+00 | 1.44E-03 | 2.80E+00 | 1.23E-03 | 1.99E+00 | 3.29E-04 | 6.08E-02 | 2.30E-05 |
| 573141 | 3.37E+00 | 1.74E-03 | 3.34E+00 | 1.47E-03 | 2.13E+00 | 3.92E-04 | 6.54E-02 | 2.75E-05 |
| 573142 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 1.52E-04 | 1.41E-05 | 1.02E-05 | 1.29E-06 |
| 573143 | 5.15E+00 | 2.19E-03 | 5.14E+00 | 1.84E-03 | 1.23E+00 | 4.78E-04 | 3.75E-02 | 3.40E-05 |
| 573144 | 5.95E+00 | 2.24E-03 | 5.94E+00 | 1.89E-03 | 1.42E+00 | 4.91E-04 | 4.34E-02 | 3.49E-05 |
| 573145 | 5.81E+00 | 2.69E-03 | 5.80E+00 | 2.27E-03 | 1.38E+00 | 5.88E-04 | 4.23E-02 | 4.18E-05 |
| 573146 | 4.75E+00 | 2.79E-03 | 4.74E+00 | 2.35E-03 | 1.13E+00 | 6.10E-04 | 3.46E-02 | 4.33E-05 |
| 573147 | 3.06E+00 | 2.84E-03 | 3.05E+00 | 2.39E-03 | 7.27E-01 | 6.22E-04 | 2.23E-02 | 4.41E-05 |
| 573148 | 1.73E+00 | 2.84E-03 | 1.72E+00 | 2.39E-03 | 4.08E-01 | 6.20E-04 | 1.26E-02 | 4.40E-05 |
| 573149 | 6.65E-02 | 2.80E-03 | 6.13E-02 | 2.36E-03 | 1.09E-02 | 6.13E-04 | 4.89E-04 | 4.35E-05 |
| 573150 | 6.51E-02 | 2.69E-03 | 6.01E-02 | 2.27E-03 | 1.05E-02 | 5.88E-04 | 4.70E-04 | 4.18E-05 |
| 573151 | 7.26E-02 | 2.57E-03 | 6.77E-02 | 2.16E-03 | 1.09E-02 | 5.60E-04 | 6.25E-04 | 3.98E-05 |
| 573152 | 6.10E-02 | 2.39E-03 | 5.66E-02 | 2.01E-03 | 9.26E-03 | 5.23E-04 | 4.18E-04 | 3.71E-05 |
| 573153 | 5.83E-02 | 2.19E-03 | 5.43E-02 | 1.84E-03 | 8.47E-03 | 4.78E-04 | 3.83E-04 | 3.40E-05 |
| 573154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 1.52E-04 | 1.41E-05 | 1.02E-05 | 1.29E-06 |
| 573155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 1.52E-04 | 1.41E-05 | 1.02E-05 | 1.29E-06 |
| 573156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 1.52E-04 | 1.41E-05 | 1.02E-05 | 1.29E-06 |
| 574128 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 1.52E-04 | 1.41E-05 | 1.02E-05 | 1.29E-06 |
| 574129 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 1.52E-04 | 1.41E-05 | 1.02E-05 | 1.29E-06 |
| 574130 | 3.05E-02 | 3.53E-05 | 3.05E-02 | 3.53E-05 | 5.51E-04 | 1.41E-05 | 2.23E-05 | 1.30E-06 |
| 574131 | 3.06E-02 | 3.53E-05 | 3.06E-02 | 3.53E-05 | 6.26E-04 | 1.42E-05 | 2.46E-05 | 1.30E-06 |
| 574132 | 3.02E-02 | 3.52E-05 | 3.02E-02 | 3.52E-05 | 3.35E-04 | 1.41E-05 | 1.57E-05 | 1.29E-06 |
| 574133 | 3.04E-02 | 3.53E-05 | 3.04E-02 | 3.53E-05 | 4.57E-04 | 1.41E-05 | 1.94E-05 | 1.29E-06 |
| 574134 | 3.16E-02 | 1.18E-04 | 3.15E-02 | 1.05E-04 | 9.06E-04 | 3.20E-05 | 3.76E-05 | 2.55E-06 |
| 574135 | 3.18E-02 | 4.10E-03 | 3.16E-02 | 4.09E-03 | 9.64E-04 | 2.34E-03 | 3.97E-05 | 1.51E-04 |
| 574136 | 8.27E-02 | 2.63E-02 | 8.25E-02 | 2.62E-02 | 2.56E-02 | 1.52E-02 | 1.71E-03 | 9.75E-04 |
| 574137 | 3.50E-02 | 3.86E-04 | 3.43E-02 | 3.30E-04 | 1.80E-03 | 9.01E-05 | 7.97E-05 | 6.65E-06 |
| 574138 | 3.76E-02 | 6.09E-04 | 3.65E-02 | 5.17E-04 | 2.43E-03 | 1.38E-04 | 1.11E-04 | 1.00E-05 |
| 574139 | 3.00E-02 | 1.27E-03 | 3.00E-02 | 1.27E-03 | 2.08E-04 | 7.35E-04 | 1.17E-05 | 4.75E-05 |
| 574140 | 4.43E-02 | 1.12E-03 | 4.23E-02 | 9.48E-04 | 4.42E-03 | 2.49E-04 | 2.00E-04 | 1.78E-05 |
| 574141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 574142 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 574143 | 4.37E+00 | 1.71E-03 | 4.37E+00 | 1.44E-03 | 1.04E+00 | 3.76E-04 | 3.18E-02 | 2.68E-05 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 574144 | 5.64E+00 | 1.95E-03 | 5.63E+00 | 1.64E-03 | 1.34E+00 | 4.27E-04 | 4.10E-02 | 3.04E-05 |
| 574145 | 6.07E+00 | 2.44E-03 | 6.07E+00 | 2.05E-03 | 1.45E+00 | 5.33E-04 | 4.42E-02 | 3.79E-05 |
| 574146 | 5.17E+00 | 2.56E-03 | 5.17E+00 | 2.15E-03 | 1.23E+00 | 5.59E-04 | 3.76E-02 | 3.97E-05 |
| 574147 | 3.55E+00 | 2.64E-03 | 3.55E+00 | 2.22E-03 | 8.44E-01 | 5.77E-04 | 2.59E-02 | 4.10E-05 |
| 574148 | 2.39E+00 | 2.70E-03 | 2.38E+00 | 2.27E-03 | 5.65E-01 | 5.90E-04 | 1.74E-02 | 4.19E-05 |
| 574149 | 6.48E-02 | 2.67E-03 | 5.98E-02 | 2.24E-03 | 1.04E-02 | 5.82E-04 | 4.68E-04 | 4.14E-05 |
| 574150 | 6.44E-02 | 2.63E-03 | 5.94E-02 | 2.22E-03 | 1.03E-02 | 5.75E-04 | 4.62E-04 | 4.09E-05 |
| 574151 | 6.35E-02 | 2.57E-03 | 5.86E-02 | 2.16E-03 | 1.00E-02 | 5.60E-04 | 4.50E-04 | 3.98E-05 |
| 574152 | 6.16E-02 | 2.43E-03 | 5.71E-02 | 2.05E-03 | 9.49E-03 | 5.31E-04 | 4.27E-04 | 3.78E-05 |
| 574153 | 5.99E-02 | 2.30E-03 | 5.57E-02 | 1.93E-03 | 8.96E-03 | 5.02E-04 | 4.04E-04 | 3.57E-05 |
| 574154 | 5.79E-02 | 2.14E-03 | 5.39E-02 | 1.80E-03 | 8.37E-03 | 4.69E-04 | 3.78E-04 | 3.34E-05 |
| 574155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 574156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 575128 | 3.05E-02 | 3.53E-05 | 3.05E-02 | 3.53E-05 | 5.71E-04 | 1.41E-05 | 2.27E-05 | 1.30E-06 |
| 575129 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 6.71E-04 | 1.42E-05 | 2.58E-05 | 1.30E-06 |
| 575130 | 3.08E-02 | 3.54E-05 | 3.08E-02 | 3.54E-05 | 7.70E-04 | 1.42E-05 | 2.88E-05 | 1.30E-06 |
| 575131 | 3.09E-02 | 3.54E-05 | 3.09E-02 | 3.54E-05 | 8.51E-04 | 1.42E-05 | 3.13E-05 | 1.30E-06 |
| 575132 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 6.71E-04 | 1.42E-05 | 2.58E-05 | 1.30E-06 |
| 575133 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 7.18E-04 | 1.42E-05 | 2.72E-05 | 1.30E-06 |
| 575134 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 6.86E-04 | 1.42E-05 | 2.63E-05 | 1.30E-06 |
| 575135 | 4.65E-02 | 3.00E-03 | 4.65E-02 | 3.00E-03 | 1.21E-02 | 1.74E-03 | 5.49E-04 | 1.12E-04 |
| 575136 | 5.21E-02 | 2.03E-04 | 5.21E-02 | 2.03E-04 | 1.63E-02 | 1.11E-04 | 7.41E-04 | 7.53E-06 |
| 575137 | 3.31E-02 | 3.24E-04 | 3.26E-02 | 2.87E-04 | 1.10E-03 | 9.76E-05 | 5.15E-05 | 6.97E-06 |
| 575138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 575139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 575140 | 4.03E-02 | 8.19E-04 | 3.89E-02 | 6.93E-04 | 3.25E-03 | 1.83E-04 | 1.48E-04 | 1.32E-05 |
| 575141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 575142 | 4.48E-02 | 1.15E-03 | 4.27E-02 | 9.77E-04 | 4.55E-03 | 2.57E-04 | 2.06E-04 | 1.83E-05 |
| 575143 | 3.11E+00 | 1.28E-03 | 3.10E+00 | 1.09E-03 | 7.37E-01 | 2.84E-04 | 2.25E-02 | 2.03E-05 |
| 575144 | 4.66E+00 | 1.58E-03 | 4.66E+00 | 1.33E-03 | 1.11E+00 | 3.48E-04 | 3.39E-02 | 2.49E-05 |
| 575145 | 5.46E+00 | 2.08E-03 | 5.45E+00 | 1.75E-03 | 1.30E+00 | 4.54E-04 | 3.98E-02 | 3.24E-05 |
| 575146 | 5.01E+00 | 2.23E-03 | 5.00E+00 | 1.87E-03 | 1.19E+00 | 4.87E-04 | 3.65E-02 | 3.47E-05 |
| 575147 | 3.59E+00 | 2.32E-03 | 3.59E+00 | 1.95E-03 | 8.54E-01 | 5.07E-04 | 2.61E-02 | 3.61E-05 |
| 575148 | 2.92E+00 | 2.46E-03 | 2.92E+00 | 2.07E-03 | 6.93E-01 | 5.38E-04 | 2.12E-02 | 3.83E-05 |
| 575149 | 1.72E+00 | 2.51E-03 | 1.72E+00 | 2.11E-03 | 4.07E-01 | 5.48E-04 | 1.25E-02 | 3.89E-05 |
| 575150 | 6.15E-02 | 2.42E-03 | 5.70E-02 | 2.04E-03 | 9.45E-03 | 5.29E-04 | 4.25E-04 | 3.76E-05 |
| 575151 | 6.21E-02 | 2.47E-03 | 5.76E-02 | 2.08E-03 | 9.65E-03 | 5.40E-04 | 4.34E-04 | 3.84E-05 |
| 575152 | 6.11E-02 | 2.39E-03 | 5.66E-02 | 2.01E-03 | 9.32E-03 | 5.22E-04 | 4.19E-04 | 3.71E-05 |
| 575153 | 6.04E-02 | 2.34E-03 | 5.60E-02 | 1.97E-03 | 9.13E-03 | 5.11E-04 | 4.10E-04 | 3.64E-05 |
| 575154 | 5.83E-02 | 2.18E-03 | 5.43E-02 | 1.83E-03 | 8.50E-03 | 4.76E-04 | 3.83E-04 | 3.39E-05 |
| 575155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 575156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576126 | 1.17E-01 | 9.72E-08 | 2.77E-02 | 9.72E-08 | 1.57E-03 | 5.77E-08 | 8.08E-05 | 2.45E-09 |
| 576127 | 5.17E-04 | 1.31E-07 | 5.17E-04 | 1.31E-07 | 3.81E-04 | 7.75E-08 | 1.16E-05 | 3.30E-09 |
| 576128 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 7.03E-04 | 1.42E-05 | 2.68E-05 | 1.30E-06 |
| 576129 | 3.09E-02 | 3.54E-05 | 3.09E-02 | 3.54E-05 | 8.16E-04 | 1.42E-05 | 3.02E-05 | 1.30E-06 |
| 576130 | 3.10E-02 | 3.54E-05 | 3.10E-02 | 3.54E-05 | 9.21E-04 | 1.42E-05 | 3.34E-05 | 1.30E-06 |
| 576131 | 3.11E-02 | 3.54E-05 | 3.11E-02 | 3.54E-05 | 9.83E-04 | 1.42E-05 | 3.53E-05 | 1.30E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 576132 | 3.11E-02 | 3.54E-05 | 3.11E-02 | 3.54E-05 | 9.99E-04 | 1.42E-05 | 3.58E-05 | 1.30E-06 |
| 576133 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 7.10E-04 | 1.42E-05 | 2.70E-05 | 1.30E-06 |
| 576134 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 6.66E-04 | 1.42E-05 | 2.56E-05 | 1.30E-06 |
| 576135 | 3.05E-02 | 3.53E-05 | 3.05E-02 | 3.53E-05 | 5.74E-04 | 1.41E-05 | 2.29E-05 | 1.30E-06 |
| 576136 | 3.04E-02 | 3.52E-05 | 3.04E-02 | 3.52E-05 | 4.64E-04 | 1.41E-05 | 1.95E-05 | 1.29E-06 |
| 576137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576142 | 4.34E-02 | 1.05E-03 | 4.15E-02 | 8.91E-04 | 4.16E-03 | 2.35E-04 | 1.88E-04 | 1.68E-05 |
| 576143 | 2.59E+00 | 1.30E-03 | 2.58E+00 | 1.10E-03 | 6.13E-01 | 2.88E-04 | 1.87E-02 | 2.05E-05 |
| 576144 | 3.45E+00 | 1.48E-03 | 3.45E+00 | 1.26E-03 | 8.18E-01 | 3.28E-04 | 2.51E-02 | 2.34E-05 |
| 576145 | 4.30E+00 | 1.69E-03 | 4.30E+00 | 1.42E-03 | 1.03E+00 | 3.70E-04 | 3.13E-02 | 2.64E-05 |
| 576146 | 4.62E+00 | 1.85E-03 | 4.62E+00 | 1.55E-03 | 1.10E+00 | 4.05E-04 | 3.36E-02 | 2.89E-05 |
| 576147 | 4.31E+00 | 2.01E-03 | 4.30E+00 | 1.69E-03 | 1.03E+00 | 4.40E-04 | 3.14E-02 | 3.13E-05 |
| 576148 | 3.19E+00 | 2.17E-03 | 3.18E+00 | 1.82E-03 | 7.56E-01 | 4.74E-04 | 2.32E-02 | 3.38E-05 |
| 576149 | 2.07E+00 | 2.24E-03 | 2.07E+00 | 1.89E-03 | 4.91E-01 | 4.91E-04 | 1.51E-02 | 3.49E-05 |
| 576150 | 1.20E+00 | 2.24E-03 | 1.20E+00 | 1.89E-03 | 2.82E-01 | 4.91E-04 | 8.72E-03 | 3.49E-05 |
| 576151 | 6.00E-02 | 2.31E-03 | 5.58E-02 | 1.95E-03 | 9.03E-03 | 5.05E-04 | 4.06E-04 | 3.60E-05 |
| 576152 | 5.99E-02 | 2.30E-03 | 5.57E-02 | 1.94E-03 | 8.99E-03 | 5.04E-04 | 4.04E-04 | 3.58E-05 |
| 576153 | 5.92E-02 | 2.24E-03 | 5.51E-02 | 1.89E-03 | 8.76E-03 | 4.91E-04 | 3.95E-04 | 3.49E-05 |
| 576154 | 5.72E-02 | 2.09E-03 | 5.34E-02 | 1.76E-03 | 8.17E-03 | 4.58E-04 | 3.69E-04 | 3.26E-05 |
| 576155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 576156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577123 | 1.10E+00 | 0.00E+00 | 2.59E-01 | 0.00E+00 | 1.22E-02 | 0.00E+00 | 6.85E-04 | 0.00E+00 |
| 577124 | 6.83E-01 | 0.00E+00 | 1.60E-01 | 0.00E+00 | 7.56E-03 | 0.00E+00 | 4.23E-04 | 0.00E+00 |
| 577125 | 4.06E-01 | 9.68E-08 | 9.54E-02 | 9.68E-08 | 4.78E-03 | 5.75E-08 | 2.60E-04 | 2.44E-09 |
| 577126 | 2.22E-01 | 1.31E-07 | 5.24E-02 | 1.31E-07 | 2.83E-03 | 7.75E-08 | 1.49E-04 | 3.30E-09 |
| 577127 | 1.79E-02 | 1.70E-07 | 4.70E-03 | 1.70E-07 | 6.86E-04 | 1.01E-07 | 2.58E-05 | 4.29E-09 |
| 577128 | 4.16E-02 | 3.54E-05 | 3.34E-02 | 3.54E-05 | 9.46E-04 | 1.42E-05 | 3.72E-05 | 1.30E-06 |
| 577129 | 3.10E-02 | 3.54E-05 | 3.10E-02 | 3.54E-05 | 9.44E-04 | 1.42E-05 | 3.41E-05 | 1.30E-06 |
| 577130 | 3.12E-02 | 3.54E-05 | 3.12E-02 | 3.54E-05 | 1.03E-03 | 1.42E-05 | 3.68E-05 | 1.30E-06 |
| 577131 | 3.12E-02 | 3.55E-05 | 3.12E-02 | 3.55E-05 | 1.08E-03 | 1.42E-05 | 3.82E-05 | 1.30E-06 |
| 577132 | 3.12E-02 | 3.55E-05 | 3.12E-02 | 3.55E-05 | 1.06E-03 | 1.42E-05 | 3.77E-05 | 1.30E-06 |
| 577133 | 3.11E-02 | 3.54E-05 | 3.11E-02 | 3.54E-05 | 9.68E-04 | 1.42E-05 | 3.49E-05 | 1.30E-06 |
| 577134 | 3.09E-02 | 3.54E-05 | 3.09E-02 | 3.54E-05 | 8.15E-04 | 1.42E-05 | 3.02E-05 | 1.30E-06 |
| 577135 | 3.06E-02 | 3.53E-05 | 3.06E-02 | 3.53E-05 | 6.46E-04 | 1.42E-05 | 2.50E-05 | 1.30E-06 |
| 577136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577142 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577143 | 1.95E+00 | 9.10E-05 | 1.95E+00 | 8.20E-05 | 4.59E-01 | 2.61E-05 | 1.40E-02 | 2.14E-06 |
| 577144 | 3.11E+00 | 1.17E-03 | 3.10E+00 | 9.91E-04 | 7.37E-01 | 2.60E-04 | 2.25E-02 | 1.86E-05 |
| 577145 | 4.05E+00 | 1.34E-03 | 4.04E+00 | 1.13E-03 | 9.63E-01 | 2.97E-04 | 2.94E-02 | 2.12E-05 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 577146 | 4.44E+00 | 1.52E-03 | 4.44E+00 | 1.28E-03 | 1.06E+00 | 3.35E-04 | 3.23E-02 | 2.40E-05 |
| 577147 | 4.10E+00 | 1.65E-03 | 4.10E+00 | 1.38E-03 | 9.74E-01 | 3.61E-04 | 2.98E-02 | 2.58E-05 |
| 577148 | 3.25E+00 | 1.86E-03 | 3.25E+00 | 1.57E-03 | 7.71E-01 | 4.08E-04 | 2.36E-02 | 2.91E-05 |
| 577149 | 2.28E+00 | 1.95E-03 | 2.27E+00 | 1.64E-03 | 5.38E-01 | 4.27E-04 | 1.65E-02 | 3.04E-05 |
| 577150 | 1.46E+00 | 1.97E-03 | 1.45E+00 | 1.66E-03 | 3.43E-01 | 4.32E-04 | 1.05E-02 | 3.08E-05 |
| 577151 | 8.19E-01 | 2.23E-03 | 8.15E-01 | 1.87E-03 | 1.91E-01 | 4.87E-04 | 5.93E-03 | 3.47E-05 |
| 577152 | 6.65E-02 | 2.20E-03 | 6.24E-02 | 1.85E-03 | 9.39E-03 | 4.82E-04 | 5.38E-04 | 3.43E-05 |
| 577153 | 5.77E-02 | 2.13E-03 | 5.37E-02 | 1.79E-03 | 8.30E-03 | 4.65E-04 | 3.75E-04 | 3.31E-05 |
| 577154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 577156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578122 | 2.48E+00 | 5.03E-08 | 5.80E-01 | 5.03E-08 | 2.75E-02 | 2.99E-08 | 1.53E-03 | 1.27E-09 |
| 578123 | 1.62E+00 | 6.76E-08 | 3.78E-01 | 6.76E-08 | 1.81E-02 | 4.01E-08 | 1.01E-03 | 1.71E-09 |
| 578124 | 1.05E+00 | 9.37E-08 | 2.47E-01 | 9.37E-08 | 1.20E-02 | 5.56E-08 | 6.62E-04 | 2.37E-09 |
| 578125 | 6.78E-01 | 1.27E-07 | 1.60E-01 | 1.27E-07 | 7.87E-03 | 7.52E-08 | 4.31E-04 | 3.20E-09 |
| 578126 | 1.20E-01 | 1.65E-07 | 2.87E-02 | 1.65E-07 | 1.80E-03 | 9.78E-08 | 8.86E-05 | 4.16E-09 |
| 578127 | 8.52E-02 | 2.06E-07 | 2.06E-02 | 2.06E-07 | 1.54E-03 | 1.22E-07 | 7.06E-05 | 5.21E-09 |
| 578128 | 6.67E-02 | 3.54E-05 | 3.94E-02 | 3.54E-05 | 1.33E-03 | 1.42E-05 | 5.58E-05 | 1.30E-06 |
| 578129 | 5.07E-02 | 3.54E-05 | 3.57E-02 | 3.54E-05 | 1.25E-03 | 1.42E-05 | 4.90E-05 | 1.30E-06 |
| 578130 | 3.13E-02 | 3.55E-05 | 3.13E-02 | 3.55E-05 | 1.10E-03 | 1.42E-05 | 3.88E-05 | 1.30E-06 |
| 578131 | 3.13E-02 | 3.55E-05 | 3.13E-02 | 3.55E-05 | 1.11E-03 | 1.43E-05 | 3.93E-05 | 1.30E-06 |
| 578132 | 3.12E-02 | 3.55E-05 | 3.12E-02 | 3.55E-05 | 1.06E-03 | 1.42E-05 | 3.76E-05 | 1.30E-06 |
| 578133 | 3.10E-02 | 3.54E-05 | 3.10E-02 | 3.54E-05 | 9.46E-04 | 1.42E-05 | 3.42E-05 | 1.30E-06 |
| 578134 | 3.08E-02 | 3.54E-05 | 3.08E-02 | 3.54E-05 | 7.83E-04 | 1.42E-05 | 2.92E-05 | 1.30E-06 |
| 578135 | 3.06E-02 | 3.53E-05 | 3.06E-02 | 3.53E-05 | 6.09E-04 | 1.41E-05 | 2.39E-05 | 1.30E-06 |
| 578136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578142 | 4.64E-01 | 1.41E-04 | 4.63E-01 | 1.24E-04 | 1.04E-01 | 3.68E-05 | 3.18E-03 | 2.90E-06 |
| 578143 | 1.45E+00 | 4.94E-04 | 1.45E+00 | 4.20E-04 | 3.39E-01 | 1.13E-04 | 1.04E-02 | 8.28E-06 |
| 578144 | 2.38E+00 | 6.77E-04 | 2.38E+00 | 5.75E-04 | 5.63E-01 | 1.52E-04 | 1.72E-02 | 1.11E-05 |
| 578145 | 3.19E+00 | 1.06E-03 | 3.19E+00 | 8.98E-04 | 7.57E-01 | 2.36E-04 | 2.32E-02 | 1.69E-05 |
| 578146 | 3.70E+00 | 1.18E-03 | 3.69E+00 | 9.98E-04 | 8.77E-01 | 2.62E-04 | 2.68E-02 | 1.87E-05 |
| 578147 | 3.61E+00 | 1.31E-03 | 3.60E+00 | 1.11E-03 | 8.55E-01 | 2.89E-04 | 2.61E-02 | 2.07E-05 |
| 578148 | 3.22E+00 | 1.55E-03 | 3.22E+00 | 1.31E-03 | 7.65E-01 | 3.43E-04 | 2.34E-02 | 2.45E-05 |
| 578149 | 2.48E+00 | 1.63E-03 | 2.48E+00 | 1.37E-03 | 5.87E-01 | 3.57E-04 | 1.80E-02 | 2.55E-05 |
| 578150 | 1.62E+00 | 1.66E-03 | 1.62E+00 | 1.40E-03 | 3.83E-01 | 3.65E-04 | 1.18E-02 | 2.60E-05 |
| 578151 | 9.28E-01 | 2.10E-03 | 9.24E-01 | 1.77E-03 | 2.16E-01 | 4.60E-04 | 6.72E-03 | 3.27E-05 |
| 578152 | 5.70E-02 | 2.08E-03 | 5.32E-02 | 1.75E-03 | 8.14E-03 | 4.56E-04 | 3.66E-04 | 3.25E-05 |
| 578153 | 5.59E-02 | 1.99E-03 | 5.22E-02 | 1.68E-03 | 7.78E-03 | 4.36E-04 | 3.51E-04 | 3.11E-05 |
| 578154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 578156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579121 | 4.81E+00 | 4.95E-08 | 1.13E+00 | 4.95E-08 | 5.34E-02 | 2.94E-08 | 2.98E-03 | 1.25E-09 |
| 579122 | 3.39E+00 | 6.84E-08 | 7.94E-01 | 6.84E-08 | 3.78E-02 | 4.06E-08 | 2.11E-03 | 1.73E-09 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at TI000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 579123 | 2.39E+00 | 8.83E-08 | 5.59E-01 | 8.83E-08 | 2.67E-02 | 5.24E-08 | 1.49E-03 | 2.23E-09 |
| 579124 | 1.61E+00 | 1.19E-07 | 3.77E-01 | 1.19E-07 | 1.81E-02 | 7.05E-08 | 1.01E-03 | 3.00E-09 |
| 579125 | 9.56E-01 | 1.54E-07 | 2.25E-01 | 1.54E-07 | 1.10E-02 | 9.12E-08 | 6.06E-04 | 3.88E-09 |
| 579126 | 1.65E-01 | 1.94E-07 | 3.93E-02 | 1.94E-07 | 2.38E-03 | 1.15E-07 | 1.19E-04 | 4.89E-09 |
| 579127 | 1.19E-01 | 2.33E-07 | 2.85E-02 | 2.33E-07 | 1.98E-03 | 1.39E-07 | 9.36E-05 | 5.90E-09 |
| 579128 | 1.12E-01 | 3.54E-05 | 5.00E-02 | 3.54E-05 | 1.89E-03 | 1.42E-05 | 8.56E-05 | 1.30E-06 |
| 579129 | 8.38E-02 | 3.55E-05 | 4.35E-02 | 3.55E-05 | 1.66E-03 | 1.42E-05 | 7.08E-05 | 1.30E-06 |
| 579130 | 6.80E-02 | 3.55E-05 | 3.99E-02 | 3.55E-05 | 1.52E-03 | 1.43E-05 | 6.20E-05 | 1.30E-06 |
| 579131 | 5.58E-02 | 3.55E-05 | 3.70E-02 | 3.55E-05 | 1.37E-03 | 1.42E-05 | 5.38E-05 | 1.30E-06 |
| 579132 | 4.29E-02 | 3.54E-05 | 3.39E-02 | 3.54E-05 | 1.14E-03 | 1.42E-05 | 4.35E-05 | 1.30E-06 |
| 579133 | 3.69E-02 | 3.54E-05 | 3.23E-02 | 3.54E-05 | 9.44E-04 | 1.42E-05 | 3.58E-05 | 1.30E-06 |
| 579134 | 3.07E-02 | 3.53E-05 | 3.07E-02 | 3.53E-05 | 7.18E-04 | 1.42E-05 | 2.72E-05 | 1.30E-06 |
| 579135 | 3.05E-02 | 3.53E-05 | 3.05E-02 | 3.53E-05 | 5.51E-04 | 1.41E-05 | 2.21E-05 | 1.29E-06 |
| 579136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579142 | 5.13E-01 | 1.71E-04 | 5.13E-01 | 1.50E-04 | 1.16E-01 | 4.35E-05 | 3.55E-03 | 3.36E-06 |
| 579143 | 1.04E+00 | 5.00E-04 | 1.04E+00 | 4.26E-04 | 2.41E-01 | 1.14E-04 | 7.39E-03 | 8.37E-06 |
| 579144 | 1.73E+00 | 6.83E-04 | 1.73E+00 | 5.79E-04 | 4.07E-01 | 1.54E-04 | 1.24E-02 | 1.12E-05 |
| 579145 | 2.46E+00 | 1.63E-03 | 2.46E+00 | 1.37E-03 | 5.82E-01 | 3.57E-04 | 1.78E-02 | 2.55E-05 |
| 579146 | 2.99E+00 | 1.09E-03 | 2.99E+00 | 9.20E-04 | 7.09E-01 | 2.42E-04 | 2.17E-02 | 1.73E-05 |
| 579147 | 3.25E+00 | 1.26E-03 | 3.24E+00 | 1.07E-03 | 7.69E-01 | 2.80E-04 | 2.35E-02 | 2.00E-05 |
| 579148 | 2.95E+00 | 1.41E-03 | 2.95E+00 | 1.19E-03 | 7.00E-01 | 3.11E-04 | 2.14E-02 | 2.23E-05 |
| 579149 | 2.30E+00 | 1.53E-03 | 2.30E+00 | 1.30E-03 | 5.44E-01 | 3.39E-04 | 1.67E-02 | 2.42E-05 |
| 579150 | 1.54E+00 | 1.86E-03 | 1.54E+00 | 1.56E-03 | 3.64E-01 | 4.07E-04 | 1.12E-02 | 2.90E-05 |
| 579151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 579156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580057 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 580067 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 580077 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 580087 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 580097 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 580107 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 580120 | 8.10E+00 | 4.80E-08 | 1.90E+00 | 4.80E-08 | 8.99E-02 | 2.85E-08 | 5.02E-03 | 1.21E-09 |
| 580121 | 6.27E+00 | 6.45E-08 | 1.47E+00 | 6.45E-08 | 6.97E-02 | 3.83E-08 | 3.90E-03 | 1.63E-09 |
| 580122 | 4.70E+00 | 7.68E-08 | 1.10E+00 | 7.68E-08 | 5.22E-02 | 4.56E-08 | 2.92E-03 | 1.94E-09 |
| 580123 | 3.37E+00 | 1.07E-07 | 7.90E-01 | 1.07E-07 | 3.77E-02 | 6.34E-08 | 2.10E-03 | 2.70E-09 |
| 580124 | 2.21E+00 | 1.42E-07 | 5.18E-01 | 1.42E-07 | 2.49E-02 | 8.41E-08 | 1.38E-03 | 3.58E-09 |
| 580125 | 1.44E+00 | 1.78E-07 | 3.38E-01 | 1.78E-07 | 1.64E-02 | 1.06E-07 | 9.07E-04 | 4.50E-09 |
| 580126 | 2.21E-01 | 2.14E-07 | 5.24E-02 | 2.14E-07 | 3.06E-03 | 1.27E-07 | 1.56E-04 | 5.39E-09 |
| 580127 | 1.60E-01 | 2.50E-07 | 3.82E-02 | 2.50E-07 | 2.49E-03 | 1.48E-07 | 1.21E-04 | 6.31E-09 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 580128 | 1.40E-01 | 3.54E-05 | 5.68E-02 | 3.54E-05 | 2.24E-03 | 1.42E-05 | 1.04E-04 | 1.30E-06 |
| 580129 | 9.56E-02 | 3.55E-05 | 4.63E-02 | 3.55E-05 | 1.79E-03 | 1.42E-05 | 7.81E-05 | 1.30E-06 |
| 580130 | 7.68E-02 | 3.55E-05 | 4.19E-02 | 3.55E-05 | 1.59E-03 | 1.42E-05 | 6.65E-05 | 1.30E-06 |
| 580131 | 6.58E-02 | 3.56E-05 | 3.93E-02 | 3.56E-05 | 1.41E-03 | 1.43E-05 | 5.82E-05 | 1.30E-06 |
| 580132 | 6.33E-02 | 3.54E-05 | 3.86E-02 | 3.54E-05 | 1.29E-03 | 1.42E-05 | 5.37E-05 | 1.30E-06 |
| 580133 | 3.08E-02 | 3.54E-05 | 3.08E-02 | 3.54E-05 | 7.93E-04 | 1.42E-05 | 2.95E-05 | 1.30E-06 |
| 580134 | 3.06E-02 | 3.53E-05 | 3.06E-02 | 3.53E-05 | 6.37E-04 | 1.42E-05 | 2.48E-05 | 1.30E-06 |
| 580135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580142 | 5.45E-01 | 2.04E-04 | 5.45E-01 | 1.77E-04 | 1.24E-01 | 5.04E-05 | 3.78E-03 | 3.85E-06 |
| 580143 | 7.15E-01 | 1.31E-04 | 7.15E-01 | 1.15E-04 | 1.65E-01 | 3.46E-05 | 5.02E-03 | 2.74E-06 |
| 580144 | 1.42E+00 | 2.12E-04 | 1.42E+00 | 1.83E-04 | 3.33E-01 | 5.21E-05 | 1.01E-02 | 3.97E-06 |
| 580145 | 2.07E+00 | 2.29E-04 | 2.07E+00 | 1.98E-04 | 4.89E-01 | 5.59E-05 | 1.49E-02 | 4.24E-06 |
| 580146 | 2.60E+00 | 2.43E-04 | 2.60E+00 | 2.09E-04 | 6.14E-01 | 5.89E-05 | 1.87E-02 | 4.45E-06 |
| 580147 | 2.73E+00 | 1.04E-03 | 2.73E+00 | 8.77E-04 | 6.45E-01 | 2.31E-04 | 1.98E-02 | 1.65E-05 |
| 580148 | 2.41E+00 | 1.17E-03 | 2.40E+00 | 9.91E-04 | 5.70E-01 | 2.60E-04 | 1.74E-02 | 1.86E-05 |
| 580149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 580157 | 9.56E-05 | 2.42E-07 | 9.56E-05 | 2.42E-07 | 1.83E-06 | 9.72E-08 | 7.53E-08 | 8.88E-09 |
| 580167 | 9.56E-05 | 2.42E-07 | 9.56E-05 | 2.42E-07 | 1.83E-06 | 9.70E-08 | 7.53E-08 | 8.87E-09 |
| 580177 | 9.56E-05 | 2.42E-07 | 9.56E-05 | 2.42E-07 | 1.83E-06 | 9.70E-08 | 7.53E-08 | 8.87E-09 |
| 580187 | 9.56E-05 | 2.42E-07 | 9.56E-05 | 2.42E-07 | 1.83E-06 | 9.70E-08 | 7.53E-08 | 8.87E-09 |
| 580197 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 580207 | 9.45E-05 | 2.42E-07 | 9.45E-05 | 2.42E-07 | 1.11E-06 | 9.70E-08 | 5.53E-08 | 8.87E-09 |
| 581118 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581119 | 1.32E+01 | 3.52E-05 | 3.11E+00 | 3.52E-05 | 1.46E-01 | 1.41E-05 | 8.17E-03 | 1.29E-06 |
| 581120 | 1.05E+01 | 3.52E-05 | 2.50E+00 | 3.52E-05 | 1.17E-01 | 1.41E-05 | 6.56E-03 | 1.29E-06 |
| 581121 | 8.30E+00 | 3.52E-05 | 1.97E+00 | 3.52E-05 | 9.20E-02 | 1.41E-05 | 5.15E-03 | 1.29E-06 |
| 581122 | 6.02E+00 | 3.52E-05 | 1.43E+00 | 3.52E-05 | 6.69E-02 | 1.41E-05 | 3.74E-03 | 1.29E-06 |
| 581123 | 4.43E+00 | 3.53E-05 | 1.06E+00 | 3.53E-05 | 4.94E-02 | 1.41E-05 | 2.75E-03 | 1.30E-06 |
| 581124 | 3.12E+00 | 3.53E-05 | 7.54E-01 | 3.53E-05 | 3.49E-02 | 1.42E-05 | 1.94E-03 | 1.30E-06 |
| 581125 | 2.10E+00 | 3.54E-05 | 5.16E-01 | 3.54E-05 | 2.37E-02 | 1.42E-05 | 1.31E-03 | 1.30E-06 |
| 581126 | 1.26E+00 | 3.54E-05 | 3.18E-01 | 3.54E-05 | 1.45E-02 | 1.42E-05 | 7.92E-04 | 1.30E-06 |
| 581127 | 2.36E-01 | 3.54E-05 | 7.91E-02 | 3.54E-05 | 3.23E-03 | 1.42E-05 | 1.62E-04 | 1.30E-06 |
| 581128 | 1.59E-01 | 3.54E-05 | 6.11E-02 | 3.54E-05 | 2.44E-03 | 1.42E-05 | 1.16E-04 | 1.30E-06 |
| 581129 | 1.26E-01 | 3.54E-05 | 5.34E-02 | 3.54E-05 | 2.09E-03 | 1.42E-05 | 9.57E-05 | 1.30E-06 |
| 581130 | 8.53E-02 | 3.54E-05 | 4.38E-02 | 3.54E-05 | 1.61E-03 | 1.42E-05 | 6.98E-05 | 1.30E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 581131 | 6.36E-02 | 3.57E-05 | 3.87E-02 | 3.57E-05 | 1.31E-03 | 1.44E-05 | 5.43E-05 | 1.30E-06 |
| 581132 | 6.14E-02 | 3.58E-05 | 3.80E-02 | 3.58E-05 | 1.17E-03 | 1.44E-05 | 4.96E-05 | 1.31E-06 |
| 581133 | 3.07E-02 | 3.54E-05 | 3.07E-02 | 3.54E-05 | 6.99E-04 | 1.42E-05 | 2.66E-05 | 1.30E-06 |
| 581134 | 3.05E-02 | 3.53E-05 | 3.05E-02 | 3.53E-05 | 5.59E-04 | 1.41E-05 | 2.24E-05 | 1.30E-06 |
| 581135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581141 | 3.20E-01 | 1.92E-04 | 3.20E-01 | 1.67E-04 | 6.97E-02 | 4.79E-05 | 2.14E-03 | 3.67E-06 |
| 581142 | 5.59E-01 | 2.32E-04 | 5.58E-01 | 2.00E-04 | 1.27E-01 | 5.65E-05 | 3.89E-03 | 4.28E-06 |
| 581143 | 9.08E-01 | 2.66E-04 | 9.08E-01 | 2.29E-04 | 2.10E-01 | 6.38E-05 | 6.43E-03 | 4.80E-06 |
| 581144 | 1.23E+00 | 2.17E-04 | 1.23E+00 | 1.87E-04 | 2.88E-01 | 5.32E-05 | 8.80E-03 | 4.05E-06 |
| 581145 | 1.76E+00 | 2.39E-04 | 1.76E+00 | 2.06E-04 | 4.14E-01 | 5.79E-05 | 1.26E-02 | 4.38E-06 |
| 581146 | 2.21E+00 | 2.53E-04 | 2.21E+00 | 2.18E-04 | 5.23E-01 | 6.10E-05 | 1.59E-02 | 4.60E-06 |
| 581147 | 2.17E+00 | 8.49E-04 | 2.17E+00 | 7.18E-04 | 5.12E-01 | 1.89E-04 | 1.57E-02 | 1.36E-05 |
| 581148 | 1.84E+00 | 9.61E-04 | 1.84E+00 | 8.13E-04 | 4.34E-01 | 2.14E-04 | 1.33E-02 | 1.54E-05 |
| 581149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 581156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582118 | 1.98E+01 | 3.52E-05 | 4.67E+00 | 3.52E-05 | 2.20E-01 | 1.41E-05 | 1.23E-02 | 1.29E-06 |
| 582119 | 1.64E+01 | 3.52E-05 | 3.88E+00 | 3.52E-05 | 1.82E-01 | 1.41E-05 | 1.02E-02 | 1.29E-06 |
| 582120 | 1.34E+01 | 3.52E-05 | 3.16E+00 | 3.52E-05 | 1.48E-01 | 1.41E-05 | 8.31E-03 | 1.29E-06 |
| 582121 | 1.02E+01 | 3.53E-05 | 2.42E+00 | 3.53E-05 | 1.13E-01 | 1.41E-05 | 6.35E-03 | 1.29E-06 |
| 582122 | 7.86E+00 | 3.53E-05 | 1.86E+00 | 3.53E-05 | 8.72E-02 | 1.41E-05 | 4.87E-03 | 1.29E-06 |
| 582123 | 5.86E+00 | 3.53E-05 | 1.40E+00 | 3.53E-05 | 6.52E-02 | 1.41E-05 | 3.63E-03 | 1.30E-06 |
| 582124 | 3.99E+00 | 3.53E-05 | 9.58E-01 | 3.53E-05 | 4.45E-02 | 1.42E-05 | 2.48E-03 | 1.30E-06 |
| 582125 | 2.72E+00 | 3.54E-05 | 6.62E-01 | 3.54E-05 | 3.06E-02 | 1.42E-05 | 1.70E-03 | 1.30E-06 |
| 582126 | 1.77E+00 | 3.54E-05 | 4.38E-01 | 3.54E-05 | 2.01E-02 | 1.42E-05 | 1.11E-03 | 1.30E-06 |
| 582127 | 1.09E+00 | 3.54E-05 | 2.79E-01 | 3.54E-05 | 1.27E-02 | 1.42E-05 | 6.91E-04 | 1.30E-06 |
| 582128 | 6.14E-01 | 3.54E-05 | 1.68E-01 | 3.54E-05 | 7.44E-03 | 1.42E-05 | 3.96E-04 | 1.30E-06 |
| 582129 | 3.36E-01 | 3.54E-05 | 1.02E-01 | 3.54E-05 | 4.35E-03 | 1.42E-05 | 2.24E-04 | 1.30E-06 |
| 582130 | 1.74E-01 | 3.54E-05 | 6.45E-02 | 3.54E-05 | 2.51E-03 | 1.42E-05 | 1.22E-04 | 1.30E-06 |
| 582131 | 8.47E-02 | 3.54E-05 | 4.35E-02 | 3.54E-05 | 1.44E-03 | 1.42E-05 | 6.42E-05 | 1.30E-06 |
| 582132 | 3.08E-02 | 3.57E-05 | 3.08E-02 | 3.57E-05 | 7.27E-04 | 1.43E-05 | 2.75E-05 | 1.30E-06 |
| 582133 | 3.06E-02 | 3.55E-05 | 3.06E-02 | 3.55E-05 | 6.00E-04 | 1.43E-05 | 2.36E-05 | 1.30E-06 |
| 582134 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 582140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582141 | 3.38E-01 | 1.96E-04 | 3.38E-01 | 1.70E-04 | 7.40E-02 | 4.86E-05 | 2.27E-03 | 3.73E-06 |
| 582142 | 5.95E-01 | 2.37E-04 | 5.94E-01 | 2.05E-04 | 1.35E-01 | 5.76E-05 | 4.15E-03 | 4.36E-06 |
| 582143 | 9.30E-01 | 2.76E-04 | 9.29E-01 | 2.37E-04 | 2.15E-01 | 6.60E-05 | 6.58E-03 | 4.95E-06 |
| 582144 | 1.28E+00 | 3.09E-04 | 1.28E+00 | 2.64E-04 | 3.00E-01 | 7.29E-05 | 9.18E-03 | 5.45E-06 |
| 582145 | 1.56E+00 | 3.30E-04 | 1.56E+00 | 2.82E-04 | 3.67E-01 | 7.75E-05 | 1.13E-02 | 5.77E-06 |
| 582146 | 1.67E+00 | 3.38E-04 | 1.67E+00 | 2.88E-04 | 3.93E-01 | 7.93E-05 | 1.20E-02 | 5.89E-06 |
| 582147 | 3.24E+00 | 6.16E-04 | 3.24E+00 | 5.23E-04 | 7.66E-01 | 1.39E-04 | 2.34E-02 | 1.01E-05 |
| 582148 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 582156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583116 | 3.24E+01 | 0.00E+00 | 7.58E+00 | 0.00E+00 | 3.59E-01 | 0.00E+00 | 2.01E-02 | 0.00E+00 |
| 583117 | 2.81E+01 | 0.00E+00 | 6.59E+00 | 0.00E+00 | 3.12E-01 | 0.00E+00 | 1.74E-02 | 0.00E+00 |
| 583118 | 2.40E+01 | 3.52E-05 | 5.66E+00 | 3.52E-05 | 2.66E-01 | 1.41E-05 | 1.49E-02 | 1.29E-06 |
| 583119 | 2.01E+01 | 3.52E-05 | 4.75E+00 | 3.52E-05 | 2.23E-01 | 1.41E-05 | 1.25E-02 | 1.29E-06 |
| 583120 | 1.60E+01 | 3.52E-05 | 3.77E+00 | 3.52E-05 | 1.77E-01 | 1.41E-05 | 9.93E-03 | 1.29E-06 |
| 583121 | 1.28E+01 | 3.53E-05 | 3.02E+00 | 3.53E-05 | 1.42E-01 | 1.41E-05 | 7.93E-03 | 1.29E-06 |
| 583122 | 9.91E+00 | 3.53E-05 | 2.34E+00 | 3.53E-05 | 1.10E-01 | 1.41E-05 | 6.14E-03 | 1.29E-06 |
| 583123 | 7.13E+00 | 3.53E-05 | 1.69E+00 | 3.53E-05 | 7.93E-02 | 1.42E-05 | 4.42E-03 | 1.30E-06 |
| 583124 | 5.17E+00 | 3.53E-05 | 1.24E+00 | 3.53E-05 | 5.77E-02 | 1.42E-05 | 3.22E-03 | 1.30E-06 |
| 583125 | 3.59E+00 | 3.54E-05 | 8.66E-01 | 3.54E-05 | 4.03E-02 | 1.42E-05 | 2.24E-03 | 1.30E-06 |
| 583126 | 2.39E+00 | 3.54E-05 | 5.85E-01 | 3.54E-05 | 2.71E-02 | 1.42E-05 | 1.50E-03 | 1.30E-06 |
| 583127 | 1.42E+00 | 3.54E-05 | 3.56E-01 | 3.54E-05 | 1.63E-02 | 1.42E-05 | 8.93E-04 | 1.30E-06 |
| 583128 | 8.80E-01 | 3.54E-05 | 2.30E-01 | 3.54E-05 | 1.03E-02 | 1.42E-05 | 5.59E-04 | 1.30E-06 |
| 583129 | 4.92E-01 | 3.54E-05 | 1.39E-01 | 3.54E-05 | 6.00E-03 | 1.42E-05 | 3.18E-04 | 1.30E-06 |
| 583130 | 2.40E-01 | 3.54E-05 | 7.98E-02 | 3.54E-05 | 3.13E-03 | 1.42E-05 | 1.59E-04 | 1.30E-06 |
| 583131 | 3.08E-02 | 3.53E-05 | 3.08E-02 | 3.53E-05 | 7.32E-04 | 1.42E-05 | 2.77E-05 | 1.30E-06 |
| 583132 | 3.06E-02 | 3.54E-05 | 3.06E-02 | 3.54E-05 | 6.27E-04 | 1.42E-05 | 2.45E-05 | 1.30E-06 |
| 583133 | 3.05E-02 | 3.54E-05 | 3.05E-02 | 3.54E-05 | 5.16E-04 | 1.42E-05 | 2.11E-05 | 1.30E-06 |
| 583134 | 3.00E-02 | 3.53E-05 | 3.00E-02 | 3.53E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583141 | 3.20E-01 | 1.92E-04 | 3.20E-01 | 1.67E-04 | 6.97E-02 | 4.79E-05 | 2.14E-03 | 3.67E-06 |
| 583142 | 5.59E-01 | 2.32E-04 | 5.58E-01 | 2.00E-04 | 1.27E-01 | 5.65E-05 | 3.89E-03 | 4.28E-06 |
| 583143 | 8.68E-01 | 2.69E-04 | 8.68E-01 | 2.32E-04 | 2.01E-01 | 6.45E-05 | 6.13E-03 | 4.86E-06 |
| 583144 | 1.20E+00 | 3.02E-04 | 1.20E+00 | 2.59E-04 | 2.81E-01 | 7.15E-05 | 8.59E-03 | 5.35E-06 |
| 583145 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583146 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 583147 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583148 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 583156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584113 | 2.93E+01 | 0.00E+00 | 6.86E+00 | 0.00E+00 | 3.25E-01 | 0.00E+00 | 1.82E-02 | 0.00E+00 |
| 584114 | 3.14E+01 | 0.00E+00 | 7.35E+00 | 0.00E+00 | 3.47E-01 | 0.00E+00 | 1.94E-02 | 0.00E+00 |
| 584115 | 3.31E+01 | 0.00E+00 | 7.76E+00 | 0.00E+00 | 3.67E-01 | 0.00E+00 | 2.05E-02 | 0.00E+00 |
| 584116 | 3.45E+01 | 0.00E+00 | 8.07E+00 | 0.00E+00 | 3.82E-01 | 0.00E+00 | 2.14E-02 | 0.00E+00 |
| 584117 | 3.32E+01 | 2.70E-08 | 7.77E+00 | 2.70E-08 | 3.68E-01 | 1.60E-08 | 2.06E-02 | 6.81E-10 |
| 584118 | 2.79E+01 | 3.52E-05 | 6.56E+00 | 3.52E-05 | 3.09E-01 | 1.41E-05 | 1.73E-02 | 1.29E-06 |
| 584119 | 2.34E+01 | 3.52E-05 | 5.50E+00 | 3.52E-05 | 2.59E-01 | 1.41E-05 | 1.45E-02 | 1.29E-06 |
| 584120 | 1.92E+01 | 3.52E-05 | 4.53E+00 | 3.52E-05 | 2.13E-01 | 1.41E-05 | 1.19E-02 | 1.29E-06 |
| 584121 | 1.54E+01 | 3.53E-05 | 3.64E+00 | 3.53E-05 | 1.72E-01 | 1.41E-05 | 9.58E-03 | 1.29E-06 |
| 584122 | 1.17E+01 | 3.53E-05 | 2.76E+00 | 3.53E-05 | 1.30E-01 | 1.42E-05 | 7.24E-03 | 1.30E-06 |
| 584123 | 8.91E+00 | 3.53E-05 | 2.11E+00 | 3.53E-05 | 9.90E-02 | 1.42E-05 | 5.52E-03 | 1.30E-06 |
| 584124 | 6.52E+00 | 3.53E-05 | 1.55E+00 | 3.53E-05 | 7.27E-02 | 1.42E-05 | 4.05E-03 | 1.30E-06 |
| 584125 | 4.40E+00 | 3.54E-05 | 1.05E+00 | 3.54E-05 | 4.92E-02 | 1.42E-05 | 2.74E-03 | 1.30E-06 |
| 584126 | 2.96E+00 | 3.54E-05 | 7.17E-01 | 3.54E-05 | 3.33E-02 | 1.42E-05 | 1.85E-03 | 1.30E-06 |
| 584127 | 1.89E+00 | 3.54E-05 | 4.68E-01 | 3.54E-05 | 2.15E-02 | 1.42E-05 | 1.19E-03 | 1.30E-06 |
| 584128 | 1.16E+00 | 3.54E-05 | 2.95E-01 | 3.54E-05 | 1.33E-02 | 1.42E-05 | 7.29E-04 | 1.30E-06 |
| 584129 | 6.91E-01 | 3.54E-05 | 1.86E-01 | 3.54E-05 | 8.11E-03 | 1.42E-05 | 4.38E-04 | 1.30E-06 |
| 584130 | 5.61E+01 | 3.53E-05 | 1.31E+01 | 3.53E-05 | 6.22E-01 | 1.42E-05 | 3.47E-02 | 1.30E-06 |
| 584131 | 5.61E+01 | 3.53E-05 | 1.31E+01 | 3.53E-05 | 6.22E-01 | 1.42E-05 | 3.47E-02 | 1.30E-06 |
| 584132 | 3.05E-02 | 3.53E-05 | 3.05E-02 | 3.53E-05 | 5.38E-04 | 1.41E-05 | 2.18E-05 | 1.30E-06 |
| 584133 | 3.04E-02 | 3.53E-05 | 3.04E-02 | 3.53E-05 | 4.44E-04 | 1.41E-05 | 1.89E-05 | 1.30E-06 |
| 584134 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584141 | 2.66E-01 | 1.79E-04 | 2.66E-01 | 1.57E-04 | 5.68E-02 | 4.53E-05 | 1.75E-03 | 3.49E-06 |
| 584142 | 4.58E-01 | 2.17E-04 | 4.57E-01 | 1.87E-04 | 1.03E-01 | 5.32E-05 | 3.14E-03 | 4.05E-06 |
| 584143 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584144 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584145 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584146 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584147 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584148 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 584151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 584156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585113 | 3.01E+01 | 0.00E+00 | 7.05E+00 | 0.00E+00 | 3.33E-01 | 0.00E+00 | 1.86E-02 | 0.00E+00 |
| 585114 | 3.22E+01 | 0.00E+00 | 7.55E+00 | 0.00E+00 | 3.57E-01 | 0.00E+00 | 2.00E-02 | 0.00E+00 |
| 585115 | 3.40E+01 | 0.00E+00 | 7.97E+00 | 0.00E+00 | 3.77E-01 | 0.00E+00 | 2.11E-02 | 0.00E+00 |
| 585116 | 3.54E+01 | 1.89E-08 | 8.28E+00 | 1.89E-08 | 3.92E-01 | 1.12E-08 | 2.19E-02 | 4.77E-10 |
| 585117 | 3.62E+01 | 2.94E-08 | 8.49E+00 | 2.94E-08 | 4.02E-01 | 1.74E-08 | 2.25E-02 | 7.42E-10 |
| 585118 | 3.24E+01 | 3.52E-05 | 7.62E+00 | 3.52E-05 | 3.59E-01 | 1.41E-05 | 2.01E-02 | 1.29E-06 |
| 585119 | 2.74E+01 | 3.52E-05 | 6.44E+00 | 3.52E-05 | 3.03E-01 | 1.41E-05 | 1.70E-02 | 1.29E-06 |
| 585120 | 2.20E+01 | 3.52E-05 | 5.19E+00 | 3.52E-05 | 2.44E-01 | 1.41E-05 | 1.37E-02 | 1.29E-06 |
| 585121 | 1.78E+01 | 3.53E-05 | 4.19E+00 | 3.53E-05 | 1.98E-01 | 1.41E-05 | 1.10E-02 | 1.29E-06 |
| 585122 | 1.40E+01 | 3.53E-05 | 3.31E+00 | 3.53E-05 | 1.56E-01 | 1.41E-05 | 8.69E-03 | 1.30E-06 |
| 585123 | 1.07E+01 | 3.53E-05 | 2.54E+00 | 3.53E-05 | 1.20E-01 | 1.41E-05 | 6.66E-03 | 1.30E-06 |
| 585124 | 7.63E+00 | 3.53E-05 | 1.81E+00 | 3.53E-05 | 8.50E-02 | 1.42E-05 | 4.74E-03 | 1.30E-06 |
| 585125 | 5.46E+00 | 3.53E-05 | 1.30E+00 | 3.53E-05 | 6.09E-02 | 1.42E-05 | 3.40E-03 | 1.30E-06 |
| 585126 | 3.74E+00 | 3.53E-05 | 8.99E-01 | 3.53E-05 | 4.18E-02 | 1.42E-05 | 2.33E-03 | 1.30E-06 |
| 585127 | 2.32E+00 | 3.53E-05 | 5.68E-01 | 3.53E-05 | 2.61E-02 | 1.42E-05 | 1.45E-03 | 1.30E-06 |
| 585128 | 1.43E+00 | 3.53E-05 | 3.60E-01 | 3.53E-05 | 1.63E-02 | 1.42E-05 | 8.97E-04 | 1.30E-06 |
| 585129 | 8.75E-01 | 3.53E-05 | 2.29E-01 | 3.53E-05 | 1.00E-02 | 1.42E-05 | 5.49E-04 | 1.30E-06 |
| 585130 | 6.49E+01 | 3.53E-05 | 1.52E+01 | 3.53E-05 | 7.21E-01 | 1.42E-05 | 4.02E-02 | 1.30E-06 |
| 585131 | 6.66E+01 | 3.53E-05 | 1.56E+01 | 3.53E-05 | 7.39E-01 | 1.41E-05 | 4.13E-02 | 1.29E-06 |
| 585132 | 6.38E+01 | 3.52E-05 | 1.50E+01 | 3.52E-05 | 7.07E-01 | 1.41E-05 | 3.96E-02 | 1.29E-06 |
| 585133 | 6.27E+01 | 3.52E-05 | 1.47E+01 | 3.52E-05 | 6.95E-01 | 1.41E-05 | 3.89E-02 | 1.29E-06 |
| 585134 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585142 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585143 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585144 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585145 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585146 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585147 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585148 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 585155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 585156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586113 | 3.05E+01 | 0.00E+00 | 7.14E+00 | 0.00E+00 | 3.38E-01 | 0.00E+00 | 1.89E-02 | 0.00E+00 |
| 586114 | 3.26E+01 | 0.00E+00 | 7.63E+00 | 0.00E+00 | 3.61E-01 | 0.00E+00 | 2.02E-02 | 0.00E+00 |
| 586115 | 3.44E+01 | 0.00E+00 | 8.06E+00 | 0.00E+00 | 3.81E-01 | 0.00E+00 | 2.13E-02 | 0.00E+00 |
| 586116 | 3.57E+01 | 2.08E-08 | 8.37E+00 | 2.08E-08 | 3.96E-01 | 1.23E-08 | 2.22E-02 | 5.25E-10 |
| 586117 | 3.66E+01 | 3.09E-08 | 8.58E+00 | 3.09E-08 | 4.06E-01 | 1.83E-08 | 2.27E-02 | 7.80E-10 |
| 586118 | 3.70E+01 | 3.52E-05 | 8.70E+00 | 3.52E-05 | 4.10E-01 | 1.41E-05 | 2.29E-02 | 1.29E-06 |
| 586119 | 3.07E+01 | 3.52E-05 | 7.22E+00 | 3.52E-05 | 3.40E-01 | 1.41E-05 | 1.90E-02 | 1.29E-06 |
| 586120 | 2.55E+01 | 3.52E-05 | 6.00E+00 | 3.52E-05 | 2.82E-01 | 1.41E-05 | 1.58E-02 | 1.29E-06 |
| 586121 | 2.06E+01 | 3.53E-05 | 4.87E+00 | 3.53E-05 | 2.30E-01 | 1.41E-05 | 1.28E-02 | 1.29E-06 |
| 586122 | 1.59E+01 | 3.53E-05 | 3.75E+00 | 3.53E-05 | 1.77E-01 | 1.41E-05 | 9.86E-03 | 1.30E-06 |
| 586123 | 1.22E+01 | 3.53E-05 | 2.89E+00 | 3.53E-05 | 1.36E-01 | 1.42E-05 | 7.60E-03 | 1.30E-06 |
| 586124 | 9.13E+00 | 3.53E-05 | 2.16E+00 | 3.53E-05 | 1.02E-01 | 1.41E-05 | 5.66E-03 | 1.30E-06 |
| 586125 | 6.58E+00 | 3.53E-05 | 1.56E+00 | 3.53E-05 | 7.32E-02 | 1.42E-05 | 4.09E-03 | 1.30E-06 |
| 586126 | 4.38E+00 | 3.53E-05 | 1.05E+00 | 3.53E-05 | 4.89E-02 | 1.42E-05 | 2.73E-03 | 1.30E-06 |
| 586127 | 2.90E+00 | 3.53E-05 | 7.04E-01 | 3.53E-05 | 3.25E-02 | 1.42E-05 | 1.80E-03 | 1.30E-06 |
| 586128 | 1.83E+00 | 3.53E-05 | 4.53E-01 | 3.53E-05 | 2.06E-02 | 1.41E-05 | 1.14E-03 | 1.30E-06 |
| 586129 | 7.44E+01 | 3.53E-05 | 1.74E+01 | 3.53E-05 | 8.25E-01 | 1.41E-05 | 4.61E-02 | 1.30E-06 |
| 586130 | 7.71E+01 | 3.53E-05 | 1.81E+01 | 3.53E-05 | 8.56E-01 | 1.41E-05 | 4.78E-02 | 1.29E-06 |
| 586131 | 7.38E+01 | 3.52E-05 | 1.73E+01 | 3.52E-05 | 8.18E-01 | 1.41E-05 | 4.58E-02 | 1.29E-06 |
| 586132 | 7.33E+01 | 3.52E-05 | 1.72E+01 | 3.52E-05 | 8.12E-01 | 1.41E-05 | 4.54E-02 | 1.29E-06 |
| 586133 | 7.44E+01 | 3.52E-05 | 1.74E+01 | 3.52E-05 | 8.24E-01 | 1.41E-05 | 4.61E-02 | 1.29E-06 |
| 586134 | 7.27E+01 | 3.52E-05 | 1.70E+01 | 3.52E-05 | 8.06E-01 | 1.41E-05 | 4.51E-02 | 1.29E-06 |
| 586135 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586136 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586137 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586138 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586139 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586140 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586141 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586142 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586143 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586144 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586145 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586146 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586147 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586148 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586149 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586150 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586151 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586152 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586153 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586154 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586155 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 586156 | 3.00E-02 | 3.52E-05 | 3.00E-02 | 3.52E-05 | 2.08E-04 | 1.41E-05 | 1.17E-05 | 1.29E-06 |
| 587113 | 3.04E+01 | 0.00E+00 | 7.11E+00 | 0.00E+00 | 3.36E-01 | 0.00E+00 | 1.88E-02 | 0.00E+00 |
| 587114 | 3.25E+01 | 0.00E+00 | 7.61E+00 | 0.00E+00 | 3.60E-01 | 0.00E+00 | 2.01E-02 | 0.00E+00 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 587115 | 3.43E+01 | 1.44E-08 | 8.03E+00 | 1.44E-08 | 3.80E-01 | 8.55E-09 | 2.13E-02 | 3.64E-10 |
| 587116 | 3.56E+01 | 2.22E-08 | 8.35E+00 | 2.22E-08 | 3.95E-01 | 1.32E-08 | 2.21E-02 | 5.62E-10 |
| 587117 | 3.65E+01 | 3.24E-08 | 8.55E+00 | 3.24E-08 | 4.05E-01 | 1.93E-08 | 2.26E-02 | 8.20E-10 |
| 587118 | 3.76E+01 | 3.52E-05 | 8.84E+00 | 3.52E-05 | 4.17E-01 | 1.41E-05 | 2.33E-02 | 1.29E-06 |
| 587119 | 3.46E+01 | 3.52E-05 | 8.13E+00 | 3.52E-05 | 3.83E-01 | 1.41E-05 | 2.14E-02 | 1.29E-06 |
| 587120 | 2.88E+01 | 3.52E-05 | 6.78E+00 | 3.52E-05 | 3.19E-01 | 1.41E-05 | 1.79E-02 | 1.29E-06 |
| 587121 | 2.29E+01 | 3.53E-05 | 5.40E+00 | 3.53E-05 | 2.55E-01 | 1.41E-05 | 1.42E-02 | 1.29E-06 |
| 587122 | 1.82E+01 | 3.53E-05 | 4.29E+00 | 3.53E-05 | 2.03E-01 | 1.41E-05 | 1.13E-02 | 1.30E-06 |
| 587123 | 1.42E+01 | 3.53E-05 | 3.35E+00 | 3.53E-05 | 1.58E-01 | 1.42E-05 | 8.79E-03 | 1.30E-06 |
| 587124 | 1.06E+01 | 3.53E-05 | 2.51E+00 | 3.53E-05 | 1.18E-01 | 1.42E-05 | 6.60E-03 | 1.30E-06 |
| 587125 | 7.52E+00 | 3.53E-05 | 1.78E+00 | 3.53E-05 | 8.37E-02 | 1.42E-05 | 4.67E-03 | 1.30E-06 |
| 587126 | 5.24E+00 | 3.53E-05 | 1.25E+00 | 3.53E-05 | 5.83E-02 | 1.42E-05 | 3.25E-03 | 1.30E-06 |
| 587127 | 3.52E+00 | 3.53E-05 | 8.49E-01 | 3.53E-05 | 3.93E-02 | 1.41E-05 | 2.18E-03 | 1.30E-06 |
| 587128 | 8.33E+01 | 3.53E-05 | 1.95E+01 | 3.53E-05 | 9.24E-01 | 1.41E-05 | 5.16E-02 | 1.29E-06 |
| 587129 | 8.66E+01 | 3.53E-05 | 2.03E+01 | 3.53E-05 | 9.60E-01 | 1.41E-05 | 5.37E-02 | 1.29E-06 |
| 587130 | 8.38E+01 | 3.52E-05 | 1.96E+01 | 3.52E-05 | 9.29E-01 | 1.41E-05 | 5.19E-02 | 1.29E-06 |
| 587131 | 8.38E+01 | 3.52E-05 | 1.96E+01 | 3.52E-05 | 9.29E-01 | 1.41E-05 | 5.19E-02 | 1.29E-06 |
| 587132 | 8.60E+01 | 3.52E-05 | 2.01E+01 | 3.52E-05 | 9.53E-01 | 1.41E-05 | 5.33E-02 | 1.29E-06 |
| 587133 | 8.44E+01 | 3.52E-05 | 1.98E+01 | 3.52E-05 | 9.35E-01 | 1.41E-05 | 5.23E-02 | 1.29E-06 |
| 587134 | 7.88E+01 | 3.52E-05 | 1.85E+01 | 3.52E-05 | 8.73E-01 | 1.41E-05 | 4.88E-02 | 1.29E-06 |
| 587135 | 7.22E+01 | 3.52E-05 | 1.69E+01 | 3.52E-05 | 7.99E-01 | 1.41E-05 | 4.47E-02 | 1.29E-06 |
| 587136 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587137 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587138 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587139 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587140 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587141 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587142 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587143 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587144 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587145 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587146 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587147 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587148 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587149 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587150 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587151 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587152 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587153 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587154 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587155 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 587156 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588113 | 2.99E+01 | 0.00E+00 | 6.99E+00 | 0.00E+00 | 3.31E-01 | 0.00E+00 | 1.85E-02 | 0.00E+00 |
| 588114 | 3.19E+01 | 1.00E-08 | 7.48E+00 | 1.00E-08 | 3.54E-01 | 5.95E-09 | 1.98E-02 | 2.53E-10 |
| 588115 | 3.37E+01 | 1.55E-08 | 7.89E+00 | 1.55E-08 | 3.73E-01 | 9.19E-09 | 2.09E-02 | 3.91E-10 |
| 588116 | 3.50E+01 | 2.32E-08 | 8.20E+00 | 2.32E-08 | 3.88E-01 | 1.38E-08 | 2.17E-02 | 5.87E-10 |
| 588117 | 3.66E+01 | 3.33E-08 | 8.58E+00 | 3.33E-08 | 4.06E-01 | 1.97E-08 | 2.27E-02 | 8.40E-10 |
| 588118 | 4.02E+01 | 3.52E-05 | 9.46E+00 | 3.52E-05 | 4.46E-01 | 1.41E-05 | 2.49E-02 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 588119 | 4.26E+01 | 3.52E-05 | 1.00E+01 | 3.52E-05 | 4.72E-01 | 1.41E-05 | 2.64E-02 | 1.29E-06 |
| 588120 | 3.14E+01 | 3.52E-05 | 7.38E+00 | 3.52E-05 | 3.47E-01 | 1.41E-05 | 1.94E-02 | 1.29E-06 |
| 588121 | 2.56E+01 | 3.53E-05 | 6.04E+00 | 3.53E-05 | 2.84E-01 | 1.41E-05 | 1.59E-02 | 1.29E-06 |
| 588122 | 2.05E+01 | 3.53E-05 | 4.84E+00 | 3.53E-05 | 2.29E-01 | 1.41E-05 | 1.27E-02 | 1.29E-06 |
| 588123 | 1.55E+01 | 3.53E-05 | 3.66E+00 | 3.53E-05 | 1.73E-01 | 1.41E-05 | 9.62E-03 | 1.30E-06 |
| 588124 | 1.17E+01 | 3.53E-05 | 2.77E+00 | 3.53E-05 | 1.31E-01 | 1.41E-05 | 7.28E-03 | 1.30E-06 |
| 588125 | 8.63E+00 | 3.53E-05 | 2.04E+00 | 3.53E-05 | 9.59E-02 | 1.41E-05 | 5.35E-03 | 1.30E-06 |
| 588126 | 6.08E+00 | 3.53E-05 | 1.45E+00 | 3.53E-05 | 6.76E-02 | 1.41E-05 | 3.77E-03 | 1.30E-06 |
| 588127 | 9.10E+01 | 3.53E-05 | 2.13E+01 | 3.53E-05 | 1.01E+00 | 1.41E-05 | 5.64E-02 | 1.29E-06 |
| 588128 | 9.60E+01 | 3.53E-05 | 2.25E+01 | 3.53E-05 | 1.06E+00 | 1.41E-05 | 5.95E-02 | 1.29E-06 |
| 588129 | 9.32E+01 | 3.52E-05 | 2.18E+01 | 3.52E-05 | 1.03E+00 | 1.41E-05 | 5.78E-02 | 1.29E-06 |
| 588130 | 9.38E+01 | 3.52E-05 | 2.20E+01 | 3.52E-05 | 1.04E+00 | 1.41E-05 | 5.81E-02 | 1.29E-06 |
| 588131 | 9.71E+01 | 3.52E-05 | 2.28E+01 | 3.52E-05 | 1.08E+00 | 1.41E-05 | 6.02E-02 | 1.29E-06 |
| 588132 | 9.60E+01 | 3.52E-05 | 2.25E+01 | 3.52E-05 | 1.06E+00 | 1.41E-05 | 5.95E-02 | 1.29E-06 |
| 588133 | 9.05E+01 | 3.52E-05 | 2.12E+01 | 3.52E-05 | 1.00E+00 | 1.41E-05 | 5.61E-02 | 1.29E-06 |
| 588134 | 8.38E+01 | 3.52E-05 | 1.96E+01 | 3.52E-05 | 9.29E-01 | 1.41E-05 | 5.19E-02 | 1.29E-06 |
| 588135 | 7.71E+01 | 3.52E-05 | 1.81E+01 | 3.52E-05 | 8.55E-01 | 1.41E-05 | 4.78E-02 | 1.29E-06 |
| 588136 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588137 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588138 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588139 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588140 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588141 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588142 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588143 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588144 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588145 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588146 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588147 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588148 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588149 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588150 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588151 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588152 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588153 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588154 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588155 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 588156 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589113 | 2.89E+01 | 6.95E-09 | 6.77E+00 | 6.95E-09 | 3.20E-01 | 4.13E-09 | 1.79E-02 | 1.76E-10 |
| 589114 | 3.09E+01 | 1.10E-08 | 7.24E+00 | 1.10E-08 | 3.43E-01 | 6.54E-09 | 1.92E-02 | 2.78E-10 |
| 589115 | 3.26E+01 | 1.66E-08 | 7.64E+00 | 1.66E-08 | 3.62E-01 | 9.83E-09 | 2.02E-02 | 4.18E-10 |
| 589116 | 3.46E+01 | 2.40E-08 | 8.11E+00 | 2.40E-08 | 3.84E-01 | 1.43E-08 | 2.15E-02 | 6.07E-10 |
| 589117 | 3.86E+01 | 3.39E-08 | 9.03E+00 | 3.39E-08 | 4.27E-01 | 2.01E-08 | 2.39E-02 | 8.56E-10 |
| 589118 | 4.15E+01 | 3.52E-05 | 9.74E+00 | 3.52E-05 | 4.59E-01 | 1.41E-05 | 2.57E-02 | 1.29E-06 |
| 589119 | 4.51E+01 | 3.52E-05 | 1.06E+01 | 3.52E-05 | 4.99E-01 | 1.41E-05 | 2.79E-02 | 1.29E-06 |
| 589120 | 4.77E+01 | 3.52E-05 | 1.12E+01 | 3.52E-05 | 5.28E-01 | 1.41E-05 | 2.95E-02 | 1.29E-06 |
| 589121 | 2.81E+01 | 3.52E-05 | 6.62E+00 | 3.52E-05 | 3.12E-01 | 1.41E-05 | 1.74E-02 | 1.29E-06 |
| 589122 | 2.20E+01 | 3.53E-05 | 5.19E+00 | 3.53E-05 | 2.45E-01 | 1.41E-05 | 1.37E-02 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 589123 | 1.72E+01 | 3.53E-05 | 4.06E+00 | 3.53E-05 | 1.92E-01 | 1.41E-05 | 1.07E-02 | 1.29E-06 |
| 589124 | 1.31E+01 | 3.53E-05 | 3.10E+00 | 3.53E-05 | 1.46E-01 | 1.41E-05 | 8.14E-03 | 1.30E-06 |
| 589125 | 9.35E+00 | 3.53E-05 | 2.21E+00 | 3.53E-05 | 1.04E-01 | 1.41E-05 | 5.80E-03 | 1.29E-06 |
| 589126 | 6.69E+00 | 3.53E-05 | 1.59E+00 | 3.53E-05 | 7.43E-02 | 1.41E-05 | 4.15E-03 | 1.29E-06 |
| 589127 | 1.03E+02 | 3.53E-05 | 2.42E+01 | 3.53E-05 | 1.14E+00 | 1.41E-05 | 6.40E-02 | 1.29E-06 |
| 589128 | 1.02E+02 | 3.52E-05 | 2.38E+01 | 3.52E-05 | 1.13E+00 | 1.41E-05 | 6.30E-02 | 1.29E-06 |
| 589129 | 1.03E+02 | 3.52E-05 | 2.40E+01 | 3.52E-05 | 1.14E+00 | 1.41E-05 | 6.36E-02 | 1.29E-06 |
| 589130 | 1.08E+02 | 3.52E-05 | 2.52E+01 | 3.52E-05 | 1.19E+00 | 1.41E-05 | 6.67E-02 | 1.29E-06 |
| 589131 | 1.07E+02 | 3.52E-05 | 2.51E+01 | 3.52E-05 | 1.19E+00 | 1.41E-05 | 6.64E-02 | 1.29E-06 |
| 589132 | 1.02E+02 | 3.52E-05 | 2.38E+01 | 3.52E-05 | 1.13E+00 | 1.41E-05 | 6.30E-02 | 1.29E-06 |
| 589133 | 9.55E+01 | 3.52E-05 | 2.24E+01 | 3.52E-05 | 1.06E+00 | 1.41E-05 | 5.92E-02 | 1.29E-06 |
| 589134 | 8.82E+01 | 3.52E-05 | 2.07E+01 | 3.52E-05 | 9.78E-01 | 1.41E-05 | 5.47E-02 | 1.29E-06 |
| 589135 | 8.10E+01 | 3.52E-05 | 1.90E+01 | 3.52E-05 | 8.98E-01 | 1.41E-05 | 5.02E-02 | 1.29E-06 |
| 589136 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589137 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589138 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589139 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589140 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589141 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589142 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589143 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589144 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589145 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589146 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589147 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589148 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589149 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589150 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589151 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589152 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589153 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589154 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589155 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 589156 | 3.05E-02 | 3.52E-05 | 3.05E-02 | 3.52E-05 | 2.10E-04 | 1.41E-05 | 1.19E-05 | 1.29E-06 |
| 590057 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 590067 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 590077 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 590087 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 590097 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 590100 | 1.91E-10 | 0.00E+00 | 5.93E-11 | 0.00E+00 | 7.48E-12 | 0.00E+00 | 3.03E-11 | 0.00E+00 |
| 590112 | 7.49E-23 | 0.00E+00 | 1.75E-23 | 0.00E+00 | 8.30E-25 | 0.00E+00 | 4.64E-26 | 0.00E+00 |
| 590113 | 2.76E+01 | 7.56E-09 | 6.47E+00 | 7.56E-09 | 3.06E-01 | 4.49E-09 | 1.71E-02 | 1.91E-10 |
| 590114 | 2.95E+01 | 1.15E-08 | 6.92E+00 | 1.15E-08 | 3.27E-01 | 6.84E-09 | 1.83E-02 | 2.91E-10 |
| 590115 | 3.18E+01 | 1.72E-08 | 7.45E+00 | 1.72E-08 | 3.52E-01 | 1.02E-08 | 1.97E-02 | 4.34E-10 |
| 590116 | 3.60E+01 | 2.43E-08 | 8.42E+00 | 2.43E-08 | 3.99E-01 | 1.45E-08 | 2.23E-02 | 6.15E-10 |
| 590117 | 3.92E+01 | 3.33E-08 | 9.18E+00 | 3.33E-08 | 4.34E-01 | 1.98E-08 | 2.43E-02 | 8.42E-10 |
| 590118 | 4.32E+01 | 3.52E-05 | 1.01E+01 | 3.52E-05 | 4.79E-01 | 1.41E-05 | 2.68E-02 | 1.29E-06 |
| 590119 | 4.62E+01 | 3.52E-05 | 1.08E+01 | 3.52E-05 | 5.12E-01 | 1.41E-05 | 2.86E-02 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 590120 | 4.97E+01 | 3.52E-05 | 1.16E+01 | 3.52E-05 | 5.51E-01 | 1.41E-05 | 3.08E-02 | 1.29E-06 |
| 590121 | 2.98E+01 | 3.52E-05 | 7.01E+00 | 3.52E-05 | 3.30E-01 | 1.41E-05 | 1.85E-02 | 1.29E-06 |
| 590122 | 2.40E+01 | 3.52E-05 | 5.65E+00 | 3.52E-05 | 2.66E-01 | 1.41E-05 | 1.49E-02 | 1.29E-06 |
| 590123 | 1.88E+01 | 3.53E-05 | 4.44E+00 | 3.53E-05 | 2.09E-01 | 1.41E-05 | 1.17E-02 | 1.29E-06 |
| 590124 | 1.40E+01 | 3.53E-05 | 3.31E+00 | 3.53E-05 | 1.56E-01 | 1.41E-05 | 8.69E-03 | 1.29E-06 |
| 590125 | 1.03E+01 | 3.53E-05 | 2.45E+00 | 3.53E-05 | 1.15E-01 | 1.41E-05 | 6.42E-03 | 1.29E-06 |
| 590126 | 1.09E+02 | 3.52E-05 | 2.56E+01 | 3.52E-05 | 1.21E+00 | 1.41E-05 | 6.78E-02 | 1.29E-06 |
| 590127 | 1.08E+02 | 3.52E-05 | 2.54E+01 | 3.52E-05 | 1.20E+00 | 1.41E-05 | 6.71E-02 | 1.29E-06 |
| 590128 | 1.11E+02 | 3.52E-05 | 2.60E+01 | 3.52E-05 | 1.23E+00 | 1.41E-05 | 6.88E-02 | 1.29E-06 |
| 590129 | 1.17E+02 | 3.52E-05 | 2.73E+01 | 3.52E-05 | 1.29E+00 | 1.41E-05 | 7.22E-02 | 1.29E-06 |
| 590130 | 1.17E+02 | 3.52E-05 | 2.74E+01 | 3.52E-05 | 1.30E+00 | 1.41E-05 | 7.26E-02 | 1.29E-06 |
| 590131 | 1.12E+02 | 3.52E-05 | 2.63E+01 | 3.52E-05 | 1.24E+00 | 1.41E-05 | 6.95E-02 | 1.29E-06 |
| 590132 | 1.06E+02 | 3.52E-05 | 2.48E+01 | 3.52E-05 | 1.17E+00 | 1.41E-05 | 6.57E-02 | 1.29E-06 |
| 590133 | 9.93E+01 | 3.52E-05 | 2.33E+01 | 3.52E-05 | 1.10E+00 | 1.41E-05 | 6.16E-02 | 1.29E-06 |
| 590134 | 9.27E+01 | 3.52E-05 | 2.17E+01 | 3.52E-05 | 1.03E+00 | 1.41E-05 | 5.74E-02 | 1.29E-06 |
| 590135 | 8.49E+01 | 3.52E-05 | 1.99E+01 | 3.52E-05 | 9.41E-01 | 1.41E-05 | 5.26E-02 | 1.29E-06 |
| 590136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 590147 | 9.68E-05 | 2.54E-07 | 9.68E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.56E-08 | 9.28E-09 |
| 590157 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 590167 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 590177 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 590187 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 590197 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 590207 | 9.56E-05 | 2.54E-07 | 9.56E-05 | 2.54E-07 | 1.83E-06 | 1.02E-07 | 7.53E-08 | 9.28E-09 |
| 591108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591112 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.38E-04 | 1.41E-05 | 1.32E-05 | 1.29E-06 |
| 591113 | 2.60E+01 | 3.52E-05 | 6.11E+00 | 3.52E-05 | 2.88E-01 | 1.41E-05 | 1.61E-02 | 1.29E-06 |
| 591114 | 2.84E+01 | 3.52E-05 | 6.67E+00 | 3.52E-05 | 3.14E-01 | 1.41E-05 | 1.76E-02 | 1.29E-06 |
| 591115 | 3.26E+01 | 3.52E-05 | 7.67E+00 | 3.52E-05 | 3.62E-01 | 1.41E-05 | 2.02E-02 | 1.29E-06 |
| 591116 | 3.61E+01 | 3.52E-05 | 8.49E+00 | 3.52E-05 | 4.00E-01 | 1.41E-05 | 2.24E-02 | 1.29E-06 |
| 591117 | 4.03E+01 | 3.52E-05 | 9.48E+00 | 3.52E-05 | 4.47E-01 | 1.41E-05 | 2.50E-02 | 1.29E-06 |
| 591118 | 4.37E+01 | 3.52E-05 | 1.02E+01 | 3.52E-05 | 4.84E-01 | 1.41E-05 | 2.71E-02 | 1.29E-06 |
| 591119 | 4.75E+01 | 3.52E-05 | 1.11E+01 | 3.52E-05 | 5.26E-01 | 1.41E-05 | 2.94E-02 | 1.29E-06 |
| 591120 | 5.04E+01 | 3.52E-05 | 1.18E+01 | 3.52E-05 | 5.58E-01 | 1.41E-05 | 3.12E-02 | 1.29E-06 |
| 591121 | 5.42E+01 | 3.52E-05 | 1.27E+01 | 3.52E-05 | 6.01E-01 | 1.41E-05 | 3.36E-02 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 591122 | 2.55E+01 | 3.52E-05 | 6.01E+00 | 3.52E-05 | 2.83E-01 | 1.41E-05 | 1.58E-02 | 1.29E-06 |
| 591123 | 1.96E+01 | 3.53E-05 | 4.63E+00 | 3.53E-05 | 2.18E-01 | 1.41E-05 | 1.22E-02 | 1.29E-06 |
| 591124 | 1.51E+01 | 3.52E-05 | 3.57E+00 | 3.52E-05 | 1.67E-01 | 1.41E-05 | 9.38E-03 | 1.29E-06 |
| 591125 | 1.13E+02 | 3.52E-05 | 2.65E+01 | 3.52E-05 | 1.25E+00 | 1.41E-05 | 7.02E-02 | 1.29E-06 |
| 591126 | 1.13E+02 | 3.52E-05 | 2.65E+01 | 3.52E-05 | 1.25E+00 | 1.41E-05 | 7.02E-02 | 1.29E-06 |
| 591127 | 1.17E+02 | 3.52E-05 | 2.73E+01 | 3.52E-05 | 1.29E+00 | 1.41E-05 | 7.22E-02 | 1.29E-06 |
| 591128 | 1.24E+02 | 3.52E-05 | 2.91E+01 | 3.52E-05 | 1.38E+00 | 1.41E-05 | 7.71E-02 | 1.29E-06 |
| 591129 | 1.26E+02 | 3.52E-05 | 2.95E+01 | 3.52E-05 | 1.40E+00 | 1.41E-05 | 7.81E-02 | 1.29E-06 |
| 591130 | 1.22E+02 | 3.52E-05 | 2.85E+01 | 3.52E-05 | 1.35E+00 | 1.41E-05 | 7.53E-02 | 1.29E-06 |
| 591131 | 1.17E+02 | 3.52E-05 | 2.73E+01 | 3.52E-05 | 1.29E+00 | 1.41E-05 | 7.22E-02 | 1.29E-06 |
| 591132 | 1.10E+02 | 3.52E-05 | 2.57E+01 | 3.52E-05 | 1.22E+00 | 1.41E-05 | 6.81E-02 | 1.29E-06 |
| 591133 | 1.03E+02 | 3.52E-05 | 2.42E+01 | 3.52E-05 | 1.14E+00 | 1.41E-05 | 6.40E-02 | 1.29E-06 |
| 591134 | 9.60E+01 | 3.52E-05 | 2.25E+01 | 3.52E-05 | 1.06E+00 | 1.41E-05 | 5.95E-02 | 1.29E-06 |
| 591135 | 1.75E+02 | 3.52E-05 | 4.11E+01 | 3.52E-05 | 1.94E+00 | 1.41E-05 | 1.09E-01 | 1.29E-06 |
| 591136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 591146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592112 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.40E-04 | 1.41E-05 | 1.33E-05 | 1.29E-06 |
| 592113 | 2.46E+01 | 3.52E-05 | 5.79E+00 | 3.52E-05 | 2.72E-01 | 1.41E-05 | 1.52E-02 | 1.29E-06 |
| 592114 | 2.87E+01 | 3.52E-05 | 6.76E+00 | 3.52E-05 | 3.19E-01 | 1.41E-05 | 1.78E-02 | 1.29E-06 |
| 592115 | 3.24E+01 | 3.52E-05 | 7.61E+00 | 3.52E-05 | 3.59E-01 | 1.41E-05 | 2.01E-02 | 1.29E-06 |
| 592116 | 3.66E+01 | 5.04E-05 | 8.61E+00 | 5.04E-05 | 4.06E-01 | 2.31E-05 | 2.27E-02 | 1.88E-06 |
| 592117 | 4.02E+01 | 3.52E-05 | 9.46E+00 | 3.52E-05 | 4.46E-01 | 1.41E-05 | 2.49E-02 | 1.29E-06 |
| 592118 | 4.45E+01 | 3.52E-05 | 1.04E+01 | 3.52E-05 | 4.93E-01 | 1.41E-05 | 2.76E-02 | 1.29E-06 |
| 592119 | 4.76E+01 | 3.52E-05 | 1.11E+01 | 3.52E-05 | 5.27E-01 | 1.41E-05 | 2.95E-02 | 1.29E-06 |
| 592120 | 5.16E+01 | 3.52E-05 | 1.21E+01 | 3.52E-05 | 5.71E-01 | 1.41E-05 | 3.20E-02 | 1.29E-06 |
| 592121 | 5.54E+01 | 3.52E-05 | 1.30E+01 | 3.52E-05 | 6.14E-01 | 1.41E-05 | 3.43E-02 | 1.29E-06 |
| 592122 | 5.83E+01 | 3.52E-05 | 1.36E+01 | 3.52E-05 | 6.46E-01 | 1.41E-05 | 3.61E-02 | 1.29E-06 |
| 592123 | 2.08E+01 | 3.52E-05 | 4.91E+00 | 3.52E-05 | 2.31E-01 | 1.41E-05 | 1.29E-02 | 1.29E-06 |
| 592124 | 1.14E+02 | 3.52E-05 | 2.68E+01 | 3.52E-05 | 1.27E+00 | 1.41E-05 | 7.09E-02 | 1.29E-06 |
| 592125 | 1.15E+02 | 3.52E-05 | 2.70E+01 | 3.52E-05 | 1.28E+00 | 1.41E-05 | 7.16E-02 | 1.29E-06 |
| 592126 | 1.20E+02 | 3.52E-05 | 2.82E+01 | 3.52E-05 | 1.33E+00 | 1.41E-05 | 7.46E-02 | 1.29E-06 |
| 592127 | 1.29E+02 | 3.52E-05 | 3.03E+01 | 3.52E-05 | 1.43E+00 | 1.41E-05 | 8.02E-02 | 1.29E-06 |
| 592128 | 1.33E+02 | 3.52E-05 | 3.11E+01 | 3.52E-05 | 1.47E+00 | 1.41E-05 | 8.22E-02 | 1.29E-06 |
| 592129 | 1.29E+02 | 3.52E-05 | 3.03E+01 | 3.52E-05 | 1.43E+00 | 1.41E-05 | 8.02E-02 | 1.29E-06 |
| 592130 | 1.25E+02 | 3.52E-05 | 2.92E+01 | 3.52E-05 | 1.38E+00 | 1.41E-05 | 7.74E-02 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 592131 | 1.19E+02 | 3.52E-05 | 2.79E+01 | 3.52E-05 | 1.32E+00 | 1.41E-05 | 7.40E-02 | 1.29E-06 |
| 592132 | 1.13E+02 | 3.52E-05 | 2.64E+01 | 3.52E-05 | 1.25E+00 | 1.41E-05 | 6.98E-02 | 1.29E-06 |
| 592133 | 1.06E+02 | 3.52E-05 | 2.48E+01 | 3.52E-05 | 1.17E+00 | 1.41E-05 | 6.57E-02 | 1.29E-06 |
| 592134 | 9.82E+01 | 3.52E-05 | 2.30E+01 | 3.52E-05 | 1.09E+00 | 1.41E-05 | 6.09E-02 | 1.29E-06 |
| 592135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 592146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593112 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.41E-04 | 1.41E-05 | 1.33E-05 | 1.29E-06 |
| 593113 | 2.74E+01 | 3.52E-05 | 6.44E+00 | 3.52E-05 | 3.03E-01 | 1.41E-05 | 1.70E-02 | 1.29E-06 |
| 593114 | 2.82E+01 | 3.52E-05 | 6.63E+00 | 3.52E-05 | 3.12E-01 | 1.41E-05 | 1.75E-02 | 1.29E-06 |
| 593115 | 3.24E+01 | 3.52E-05 | 7.62E+00 | 3.52E-05 | 3.59E-01 | 1.41E-05 | 2.01E-02 | 1.29E-06 |
| 593116 | 3.61E+01 | 3.52E-05 | 8.49E+00 | 3.52E-05 | 4.00E-01 | 1.41E-05 | 2.24E-02 | 1.29E-06 |
| 593117 | 4.04E+01 | 3.52E-05 | 9.49E+00 | 3.52E-05 | 4.48E-01 | 1.41E-05 | 2.50E-02 | 1.29E-06 |
| 593118 | 4.39E+01 | 3.52E-05 | 1.03E+01 | 3.52E-05 | 4.86E-01 | 1.41E-05 | 2.72E-02 | 1.29E-06 |
| 593119 | 4.80E+01 | 3.52E-05 | 1.12E+01 | 3.52E-05 | 5.32E-01 | 1.41E-05 | 2.98E-02 | 1.29E-06 |
| 593120 | 5.13E+01 | 3.52E-05 | 1.20E+01 | 3.52E-05 | 5.69E-01 | 1.41E-05 | 3.18E-02 | 1.29E-06 |
| 593121 | 5.52E+01 | 3.52E-05 | 1.29E+01 | 3.52E-05 | 6.12E-01 | 1.41E-05 | 3.42E-02 | 1.29E-06 |
| 593122 | 5.88E+01 | 3.52E-05 | 1.38E+01 | 3.52E-05 | 6.52E-01 | 1.41E-05 | 3.65E-02 | 1.29E-06 |
| 593123 | 2.12E+01 | 3.52E-05 | 5.00E+00 | 3.52E-05 | 2.35E-01 | 1.41E-05 | 1.31E-02 | 1.29E-06 |
| 593124 | 1.15E+02 | 3.52E-05 | 2.70E+01 | 3.52E-05 | 1.28E+00 | 1.41E-05 | 7.16E-02 | 1.29E-06 |
| 593125 | 1.22E+02 | 3.52E-05 | 2.86E+01 | 3.52E-05 | 1.35E+00 | 1.41E-05 | 7.57E-02 | 1.29E-06 |
| 593126 | 1.32E+02 | 3.52E-05 | 3.09E+01 | 3.52E-05 | 1.46E+00 | 1.41E-05 | 8.19E-02 | 1.29E-06 |
| 593127 | 1.37E+02 | 3.52E-05 | 3.20E+01 | 3.52E-05 | 1.51E+00 | 1.41E-05 | 8.46E-02 | 1.29E-06 |
| 593128 | 1.34E+02 | 3.52E-05 | 3.15E+01 | 3.52E-05 | 1.49E+00 | 1.41E-05 | 8.32E-02 | 1.29E-06 |
| 593129 | 1.31E+02 | 3.52E-05 | 3.07E+01 | 3.52E-05 | 1.45E+00 | 1.41E-05 | 8.12E-02 | 1.29E-06 |
| 593130 | 1.27E+02 | 3.52E-05 | 2.96E+01 | 3.52E-05 | 1.40E+00 | 1.41E-05 | 7.84E-02 | 1.29E-06 |
| 593131 | 1.21E+02 | 3.52E-05 | 2.83E+01 | 3.52E-05 | 1.34E+00 | 1.41E-05 | 7.50E-02 | 1.29E-06 |
| 593132 | 1.14E+02 | 3.52E-05 | 2.68E+01 | 3.52E-05 | 1.27E+00 | 1.41E-05 | 7.09E-02 | 1.29E-06 |
| 593133 | 1.07E+02 | 3.52E-05 | 2.51E+01 | 3.52E-05 | 1.19E+00 | 1.41E-05 | 6.64E-02 | 1.29E-06 |
| 593134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 593140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 593146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594112 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.42E-04 | 1.41E-05 | 1.33E-05 | 1.29E-06 |
| 594113 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.51E-04 | 1.41E-05 | 1.36E-05 | 1.29E-06 |
| 594114 | 3.54E+01 | 3.52E-05 | 8.32E+00 | 3.52E-05 | 3.92E-01 | 1.41E-05 | 2.19E-02 | 1.29E-06 |
| 594115 | 7.90E+01 | 9.57E-05 | 4.61E+01 | 9.57E-05 | 3.42E+00 | 2.54E-05 | 7.24E-01 | 2.83E-06 |
| 594116 | 3.57E+01 | 3.52E-05 | 8.40E+00 | 3.52E-05 | 3.96E-01 | 1.41E-05 | 2.22E-02 | 1.29E-06 |
| 594117 | 3.93E+01 | 3.52E-05 | 9.25E+00 | 3.52E-05 | 4.36E-01 | 1.41E-05 | 2.44E-02 | 1.29E-06 |
| 594118 | 4.37E+01 | 3.52E-05 | 1.02E+01 | 3.52E-05 | 4.84E-01 | 1.41E-05 | 2.71E-02 | 1.29E-06 |
| 594119 | 4.72E+01 | 3.52E-05 | 1.11E+01 | 3.52E-05 | 5.23E-01 | 1.41E-05 | 2.92E-02 | 1.29E-06 |
| 594120 | 5.13E+01 | 3.52E-05 | 1.20E+01 | 3.52E-05 | 5.68E-01 | 1.41E-05 | 3.18E-02 | 1.29E-06 |
| 594121 | 5.54E+01 | 3.52E-05 | 1.30E+01 | 3.52E-05 | 6.14E-01 | 1.41E-05 | 3.43E-02 | 1.29E-06 |
| 594122 | 1.09E+02 | 3.52E-05 | 2.56E+01 | 3.52E-05 | 1.21E+00 | 1.41E-05 | 6.78E-02 | 1.29E-06 |
| 594123 | 1.13E+02 | 3.52E-05 | 2.65E+01 | 3.52E-05 | 1.25E+00 | 1.41E-05 | 7.02E-02 | 1.29E-06 |
| 594124 | 1.20E+02 | 3.52E-05 | 2.82E+01 | 3.52E-05 | 1.33E+00 | 1.41E-05 | 7.46E-02 | 1.29E-06 |
| 594125 | 1.32E+02 | 3.52E-05 | 3.09E+01 | 3.52E-05 | 1.46E+00 | 1.41E-05 | 8.19E-02 | 1.29E-06 |
| 594126 | 1.38E+02 | 3.52E-05 | 3.22E+01 | 3.52E-05 | 1.53E+00 | 1.41E-05 | 8.53E-02 | 1.29E-06 |
| 594127 | 1.37E+02 | 3.52E-05 | 3.21E+01 | 3.52E-05 | 1.52E+00 | 1.41E-05 | 8.50E-02 | 1.29E-06 |
| 594128 | 1.35E+02 | 3.52E-05 | 3.16E+01 | 3.52E-05 | 1.49E+00 | 1.41E-05 | 8.36E-02 | 1.29E-06 |
| 594129 | 1.32E+02 | 3.52E-05 | 3.08E+01 | 3.52E-05 | 1.46E+00 | 1.41E-05 | 8.15E-02 | 1.29E-06 |
| 594130 | 1.27E+02 | 3.52E-05 | 2.98E+01 | 3.52E-05 | 1.41E+00 | 1.41E-05 | 7.88E-02 | 1.29E-06 |
| 594131 | 1.22E+02 | 3.52E-05 | 2.85E+01 | 3.52E-05 | 1.35E+00 | 1.41E-05 | 7.53E-02 | 1.29E-06 |
| 594132 | 1.15E+02 | 3.52E-05 | 2.69E+01 | 3.52E-05 | 1.27E+00 | 1.41E-05 | 7.12E-02 | 1.29E-06 |
| 594133 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 594146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 595110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595112 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.41E-04 | 1.41E-05 | 1.33E-05 | 1.29E-06 |
| 595113 | 3.42E-02 | 3.52E-05 | 3.42E-02 | 3.52E-05 | 2.51E-04 | 1.41E-05 | 1.36E-05 | 1.29E-06 |
| 595114 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595115 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595116 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595117 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595118 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595119 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595120 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595121 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595122 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595123 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595124 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595125 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595126 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595127 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595128 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595129 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595130 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595131 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595132 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595133 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 595146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596112 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596113 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596114 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596115 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596116 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596117 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596118 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 596119 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596120 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596121 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596122 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596123 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596124 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596125 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596126 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596127 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596128 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596129 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596130 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596131 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596132 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596133 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 596146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597112 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597113 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597114 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597115 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597116 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597117 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597118 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597119 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597120 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597121 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597122 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597123 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597124 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597125 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597126 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597127 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 597128 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597129 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597130 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597131 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597132 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597133 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 597146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598112 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598113 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598114 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598115 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598116 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598117 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598118 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598119 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598120 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598121 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598122 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598123 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598124 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598125 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598126 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598127 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598128 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598129 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598130 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598131 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598132 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598133 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 598137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 598146 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599108 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599109 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599110 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599111 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599112 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599113 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599114 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599115 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599116 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599117 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599118 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599119 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599120 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599121 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599122 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599123 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599124 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599125 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599126 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599127 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599128 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599129 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599130 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599131 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599132 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599133 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599134 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599135 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599136 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599137 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599138 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599139 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599140 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599141 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599142 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599143 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599144 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |
| 599145 | 3.41E-02 | 3.52E-05 | 3.41E-02 | 3.52E-05 | 2.23E-04 | 1.41E-05 | 1.28E-05 | 1.29E-06 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 599146 | 6.83E-02 | 7.04E-05 | 6.83E-02 | 7.04E-05 | 4.46E-04 | 2.81E-05 | 2.55E-05 | 2.59E-06 |
| 600057 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600067 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600077 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600087 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600090 | 4.72E-11 | 0.00E+00 | 1.46E-11 | 0.00E+00 | 1.85E-12 | 0.00E+00 | 7.49E-12 | 0.00E+00 |
| 600097 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600100 | 4.72E-11 | 0.00E+00 | 1.46E-11 | 0.00E+00 | 1.85E-12 | 0.00E+00 | 7.49E-12 | 0.00E+00 |
| 600107 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600117 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600127 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 600137 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600147 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600157 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600167 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600177 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600187 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600197 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 600207 | 9.97E-05 | 2.54E-07 | 9.97E-05 | 2.54E-07 | 1.84E-06 | 1.02E-07 | 7.64E-08 | 9.28E-09 |
| 610057 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610067 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610077 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610087 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610097 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610107 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610117 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610127 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610137 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610147 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610157 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610167 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610177 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610187 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610197 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 610207 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620057 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620067 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620077 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620087 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620097 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620107 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620117 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620127 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620137 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620147 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620157 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620167 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620177 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |

*Table B5-6. Statistical Increase in Individual Cancer Risk at T1000 (year 2989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 620187 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620197 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 620207 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630057 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630067 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630077 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630087 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630097 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630107 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630117 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630127 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630137 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630147 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630157 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630167 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630177 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630187 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630197 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 630207 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640057 | 3.45E-04 | 5.07E-07 | 3.45E-04 | 5.07E-07 | 4.21E-06 | 2.03E-07 | 1.90E-07 | 1.85E-08 |
| 640067 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640077 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640087 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640097 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640107 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640117 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640127 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640137 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640147 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640157 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640167 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640177 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640187 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640197 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |
| 640207 | 1.73E-04 | 2.54E-07 | 1.73E-04 | 2.54E-07 | 2.11E-06 | 1.02E-07 | 9.48E-08 | 9.28E-09 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 490057 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 490067 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 490077 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 490087 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 490097 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490107 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490117 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490127 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490137 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490147 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490157 | 2.83E-06 | 1.28E-08 | 2.83E-06 | 1.28E-08 | 1.69E-08 | 5.13E-09 | 1.46E-09 | 4.69E-10 |
| 490167 | 0.00E+00 | 1.50E-13 | 0.00E+00 | 1.50E-13 | 0.00E+00 | 4.94E-14 | 0.00E+00 | 4.47E-15 |
| 500057 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500067 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500077 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500087 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500097 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500107 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500117 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500127 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500137 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500147 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500157 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500167 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 500177 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 500187 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 500197 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 500207 | 3.15E-06 | 1.28E-08 | 3.15E-06 | 1.28E-08 | 1.81E-08 | 5.13E-09 | 1.54E-09 | 4.69E-10 |
| 510057 | 4.07E-06 | 1.36E-08 | 4.07E-06 | 1.36E-08 | 2.14E-08 | 5.47E-09 | 1.77E-09 | 5.00E-10 |
| 510067 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510077 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510087 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510097 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510107 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510117 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510127 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510137 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510147 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510157 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510167 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510177 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510187 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510197 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 510207 | 3.15E-06 | 1.36E-08 | 3.15E-06 | 1.36E-08 | 1.81E-08 | 5.47E-09 | 1.54E-09 | 5.00E-10 |
| 520057 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520067 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520077 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520087 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 520097 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520107 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520117 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520127 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520137 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520147 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520157 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 520167 | 4.07E-06 | 1.36E-08 | 4.07E-06 | 1.36E-08 | 2.14E-08 | 5.47E-09 | 1.77E-09 | 5.00E-10 |
| 520177 | 4.07E-06 | 1.36E-08 | 4.07E-06 | 1.36E-08 | 2.14E-08 | 5.47E-09 | 1.77E-09 | 5.00E-10 |
| 520187 | 4.07E-06 | 1.36E-08 | 4.07E-06 | 1.36E-08 | 2.14E-08 | 5.47E-09 | 1.77E-09 | 5.00E-10 |
| 520197 | 4.07E-06 | 1.36E-08 | 4.07E-06 | 1.36E-08 | 2.14E-08 | 5.47E-09 | 1.77E-09 | 5.00E-10 |
| 520207 | 4.07E-06 | 1.36E-08 | 4.07E-06 | 1.36E-08 | 2.14E-08 | 5.47E-09 | 1.77E-09 | 5.00E-10 |
| 530057 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530067 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530077 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530087 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530097 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530107 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530117 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530127 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530137 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530147 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530157 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530167 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530177 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530187 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530197 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 530207 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 540057 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540067 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540077 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540087 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540097 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540107 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540117 | 2.58E-05 | 6.21E-03 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540127 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540137 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540147 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 540157 | 8.69E-06 | 1.36E-08 | 8.69E-06 | 1.36E-08 | 6.33E-08 | 5.47E-09 | 5.76E-09 | 5.00E-10 |
| 540167 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 540177 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 540187 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 540197 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 540207 | 5.28E-06 | 1.36E-08 | 5.28E-06 | 1.36E-08 | 2.59E-08 | 5.47E-09 | 2.07E-09 | 5.00E-10 |
| 550057 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 550067 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 550077 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 550087 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 550097 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550107 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550117 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550127 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550137 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550147 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550157 | 2.58E-05 | 6.54E-08 | 2.58E-05 | 6.54E-08 | 1.26E-07 | 2.62E-08 | 1.01E-08 | 2.40E-09 |
| 550167 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 550177 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 550187 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 550197 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 550207 | 2.58E-05 | 6.21E-08 | 2.58E-05 | 6.21E-08 | 1.26E-07 | 2.49E-08 | 1.01E-08 | 2.28E-09 |
| 560057 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560067 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560077 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560087 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560097 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560107 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560117 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 560157 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 560167 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 560177 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 560187 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 560197 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 560207 | 2.74E-05 | 6.54E-08 | 2.74E-05 | 6.54E-08 | 1.32E-07 | 2.62E-08 | 1.05E-08 | 2.40E-09 |
| 561128 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561129 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561130 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561131 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561132 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561133 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561134 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561135 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561136 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561137 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561138 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561139 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561140 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561141 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561142 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561143 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561144 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561145 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561146 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561147 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561148 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561149 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561150 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 561151 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561152 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561153 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561154 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561155 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 561156 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 562128 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 562129 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 562130 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 562131 | 6.68E-04 | 1.19E-06 | 6.68E-04 | 1.19E-06 | 3.05E-06 | 4.74E-07 | 2.36E-07 | 4.36E-08 |
| 562132 | 6.68E-04 | 6.27E-06 | 6.68E-04 | 6.27E-06 | 3.05E-06 | 2.51E-06 | 2.36E-07 | 2.32E-07 |
| 562133 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562134 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562135 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562136 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562137 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562138 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562139 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562140 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562141 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562142 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562143 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562144 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562145 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 7.03E-06 | 2.51E-06 | 6.27E-07 | 2.32E-07 |
| 562146 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 7.05E-06 | 2.51E-06 | 6.28E-07 | 2.32E-07 |
| 562147 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562148 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562149 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562150 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562151 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562152 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562153 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562154 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562155 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 562156 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 563128 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 563129 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 563130 | 1.03E-03 | 6.27E-06 | 1.03E-03 | 6.27E-06 | 6.99E-06 | 2.51E-06 | 6.26E-07 | 2.32E-07 |
| 563131 | 1.03E-03 | 6.29E-06 | 1.03E-03 | 6.29E-06 | 6.99E-06 | 2.52E-06 | 6.26E-07 | 2.32E-07 |
| 563132 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563133 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563134 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563135 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563136 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563137 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563138 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563139 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563140 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 563141 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563142 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563143 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.92E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563144 | 4.35E-03 | 9.81E-06 | 4.35E-03 | 9.38E-06 | 2.40E-05 | 2.60E-06 | 1.61E-06 | 2.37E-07 |
| 563145 | 4.51E-03 | 1.16E-05 | 4.50E-03 | 1.10E-05 | 1.34E-04 | 2.64E-06 | 4.98E-06 | 2.40E-07 |
| 563146 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563147 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563148 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563149 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563150 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563151 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563152 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563153 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563154 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563155 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 563156 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564128 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564129 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564130 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564131 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564132 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564133 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564134 | 4.34E-03 | 6.29E-06 | 4.34E-03 | 6.29E-06 | 1.91E-05 | 2.52E-06 | 1.46E-06 | 2.32E-07 |
| 564135 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564136 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564137 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564138 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564139 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564140 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564141 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564142 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564143 | 4.36E-03 | 1.25E-05 | 4.36E-03 | 1.18E-05 | 2.90E-05 | 2.69E-06 | 1.76E-06 | 2.44E-07 |
| 564144 | 1.33E-02 | 1.56E-05 | 1.28E-02 | 1.45E-05 | 6.07E-03 | 2.83E-06 | 1.88E-04 | 2.52E-07 |
| 564145 | 2.31E-01 | 2.48E-05 | 2.19E-01 | 2.32E-05 | 1.54E-01 | 5.04E-06 | 4.75E-03 | 3.64E-07 |
| 564146 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564147 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564148 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564149 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564150 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564151 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564152 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564153 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564154 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564155 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 564156 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 565128 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 565129 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 565130 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 565131 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 565132 | 4.34E-03 | 6.35E-06 | 4.34E-03 | 6.35E-06 | 1.91E-05 | 2.55E-06 | 1.46E-06 | 2.34E-07 |
| 565133 | 4.34E-03 | 3.30E-05 | 4.34E-03 | 3.30E-05 | 1.91E-05 | 1.32E-05 | 1.46E-06 | 1.22E-06 |
| 565134 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565135 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565136 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565137 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565138 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565139 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565140 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565141 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565142 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565143 | 1.55E-02 | 4.99E-05 | 1.50E-02 | 4.79E-05 | 6.33E-03 | 1.37E-05 | 1.97E-04 | 1.25E-06 |
| 565144 | 1.74E+00 | 9.41E-05 | 1.65E+00 | 9.16E-05 | 1.18E+00 | 2.99E-05 | 3.62E-02 | 2.05E-06 |
| 565145 | 5.79E+01 | 1.46E-03 | 5.47E+01 | 1.46E-03 | 3.93E+01 | 5.87E-04 | 1.21E+00 | 2.93E-05 |
| 565146 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565147 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565148 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565149 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565150 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565151 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565152 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565153 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565154 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565155 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 565156 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 566128 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 566129 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 566130 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 566131 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.32E-05 | 3.50E-06 | 1.22E-06 |
| 566132 | 6.23E-03 | 3.30E-05 | 6.23E-03 | 3.30E-05 | 3.98E-05 | 1.33E-05 | 3.50E-06 | 1.22E-06 |
| 566133 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566134 | 3.00E-02 | 3.30E-05 | 3.00E-02 | 3.30E-05 | 1.37E-04 | 1.33E-05 | 1.07E-05 | 1.22E-06 |
| 566135 | 9.03E-01 | 3.31E-05 | 9.03E-01 | 3.31E-05 | 8.69E-02 | 1.33E-05 | 1.72E-02 | 1.22E-06 |
| 566136 | 6.75E+00 | 9.72E-02 | 6.75E+00 | 9.72E-02 | 1.31E+00 | 5.79E-02 | 1.52E-01 | 3.73E-03 |
| 566137 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566138 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566139 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566140 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566142 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566143 | 3.36E+00 | 1.42E-04 | 3.18E+00 | 1.37E-04 | 2.26E+00 | 4.20E-05 | 6.97E-02 | 2.68E-06 |
| 566144 | 1.50E+02 | 3.33E-03 | 1.43E+02 | 3.32E-03 | 1.02E+02 | 1.34E-03 | 3.14E+00 | 6.70E-05 |
| 566145 | 1.85E+03 | 4.18E-02 | 1.75E+03 | 4.18E-02 | 1.26E+03 | 1.74E-02 | 3.88E+01 | 8.69E-04 |
| 566146 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566147 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566148 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at TI0000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 566150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 566156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567133 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567134 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567135 | 2.15E+02 | 4.33E-03 | 2.03E+02 | 4.33E-03 | 1.46E+02 | 1.75E-03 | 4.49E+00 | 8.85E-05 |
| 567136 | 5.27E-02 | 3.51E-05 | 5.27E-02 | 3.50E-05 | 4.78E-03 | 1.40E-05 | 4.67E-04 | 1.25E-06 |
| 567137 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567138 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567139 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567140 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.28E-04 | 1.33E-05 | 9.51E-06 | 1.22E-06 |
| 567141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567142 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567143 | 3.64E+02 | 7.44E-03 | 3.44E+02 | 7.43E-03 | 2.46E+02 | 2.98E-03 | 7.60E+00 | 1.50E-04 |
| 567144 | 4.00E+03 | 7.65E-02 | 3.79E+03 | 7.65E-02 | 2.72E+03 | 3.23E-02 | 8.37E+01 | 1.67E-03 |
| 567145 | 1.33E+04 | 2.29E-01 | 1.26E+04 | 2.29E-01 | 9.03E+03 | 1.06E-01 | 2.78E+02 | 5.80E-03 |
| 567146 | 1.81E+04 | 3.32E-01 | 1.72E+04 | 3.32E-01 | 1.23E+04 | 1.57E-01 | 3.79E+02 | 8.68E-03 |
| 567147 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567148 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 567156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568133 | 3.07E-02 | 3.71E-05 | 3.02E-02 | 3.71E-05 | 1.54E-04 | 1.49E-05 | 1.09E-05 | 1.29E-06 |
| 568134 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568135 | 4.36E+01 | 9.03E-04 | 4.12E+01 | 9.03E-04 | 2.95E+01 | 3.65E-04 | 9.09E-01 | 1.89E-05 |
| 568136 | 3.00E-02 | 3.33E-05 | 3.00E-02 | 3.33E-05 | 1.72E-04 | 1.34E-05 | 1.09E-05 | 1.23E-06 |
| 568137 | 2.99E-02 | 3.31E-05 | 2.99E-02 | 3.31E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568138 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568139 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.47E-06 | 1.22E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 568140 | 5.43E-02 | 1.26E-04 | 5.29E-02 | 1.14E-04 | 1.67E-02 | 1.55E-05 | 5.18E-04 | 1.38E-06 |
| 568141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568142 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568143 | 8.61E+03 | 1.47E-01 | 8.14E+03 | 1.47E-01 | 5.85E+03 | 6.51E-02 | 1.80E+02 | 3.51E-03 |
| 568144 | 1.96E+04 | 2.81E-01 | 1.87E+04 | 2.81E-01 | 1.34E+04 | 1.38E-01 | 4.11E+02 | 8.06E-03 |
| 568145 | 1.71E+04 | 2.64E-01 | 1.61E+04 | 2.64E-01 | 1.16E+04 | 1.27E-01 | 3.57E+02 | 7.18E-03 |
| 568146 | 7.60E+03 | 1.51E-01 | 7.19E+03 | 1.51E-01 | 5.15E+03 | 6.60E-02 | 1.59E+02 | 3.45E-03 |
| 568147 | 1.76E+03 | 4.15E-02 | 1.67E+03 | 4.15E-02 | 1.20E+03 | 1.72E-02 | 3.68E+01 | 8.56E-04 |
| 568148 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 568156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569133 | 3.06E-02 | 3.41E-05 | 3.01E-02 | 3.41E-05 | 1.49E-04 | 1.37E-05 | 1.06E-05 | 1.24E-06 |
| 569134 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569135 | 2.12E+01 | 4.56E-04 | 2.00E+01 | 4.56E-04 | 1.44E+01 | 1.84E-04 | 4.42E-01 | 9.81E-06 |
| 569136 | 2.57E+02 | 5.19E-03 | 2.43E+02 | 5.19E-03 | 1.74E+02 | 2.09E-03 | 5.37E+00 | 1.05E-04 |
| 569137 | 2.99E-02 | 5.91E-05 | 2.99E-02 | 5.60E-05 | 1.27E-04 | 1.38E-05 | 9.47E-06 | 1.26E-06 |
| 569138 | 2.99E-02 | 3.33E-05 | 2.99E-02 | 3.33E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569139 | 6.72E-02 | 1.78E-04 | 6.51E-02 | 1.60E-04 | 2.55E-02 | 1.67E-05 | 7.89E-04 | 1.46E-06 |
| 569140 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569141 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569142 | 1.72E+04 | 2.53E-01 | 1.62E+04 | 2.53E-01 | 1.17E+04 | 1.22E-01 | 3.60E+02 | 7.00E-03 |
| 569143 | 2.26E+04 | 3.05E-01 | 2.14E+04 | 3.05E-01 | 1.54E+04 | 1.54E-01 | 4.74E+02 | 9.20E-03 |
| 569144 | 1.07E+04 | 1.76E-01 | 1.01E+04 | 1.76E-01 | 7.28E+03 | 7.98E-02 | 2.24E+02 | 4.37E-03 |
| 569145 | 2.61E+03 | 5.10E-02 | 2.47E+03 | 5.09E-02 | 1.77E+03 | 2.12E-02 | 5.46E+01 | 1.08E-03 |
| 569146 | 4.25E+02 | 9.37E-03 | 4.02E+02 | 9.37E-03 | 2.88E+02 | 3.79E-03 | 8.89E+00 | 1.89E-04 |
| 569147 | 5.37E+01 | 1.48E-03 | 5.09E+01 | 1.48E-03 | 3.65E+01 | 6.01E-04 | 1.13E+00 | 2.97E-05 |
| 569148 | 2.13E+00 | 2.79E-04 | 2.01E+00 | 2.77E-04 | 1.42E+00 | 1.12E-04 | 4.38E-02 | 5.63E-06 |
| 569149 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569150 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569151 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569152 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569153 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569154 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569155 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 569156 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 570057 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 570067 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 570077 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 570087 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 570097 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 570107 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 570117 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 570128 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 570129 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 570130 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 570131 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 570132 | 2.99E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.27E-04 | 1.33E-05 | 9.45E-06 | 1.22E-06 |
| 570133 | 3.00E-02 | 3.31E-05 | 2.99E-02 | 3.31E-05 | 1.29E-04 | 1.33E-05 | 9.56E-06 | 1.22E-06 |
| 570134 | 3.00E-02 | 3.30E-05 | 2.99E-02 | 3.30E-05 | 1.28E-04 | 1.33E-05 | 9.51E-06 | 1.22E-06 |
| 570135 | 1.24E+01 | 2.81E-04 | 1.17E+01 | 2.81E-04 | 8.38E+00 | 1.13E-04 | 2.58E-01 | 6.25E-06 |
| 570136 | 1.80E+04 | 2.61E-01 | 1.70E+04 | 2.61E-01 | 1.22E+04 | 1.26E-01 | 3.75E+02 | 7.29E-03 |
| 570137 | 1.46E+00 | 2.41E-04 | 1.39E+00 | 2.20E-04 | 9.77E-01 | 2.94E-05 | 3.01E-02 | 2.12E-06 |
| 570138 | 3.87E+01 | 1.12E-03 | 3.66E+01 | 1.08E-03 | 2.63E+01 | 3.32E-04 | 8.08E-01 | 1.74E-05 |
| 570139 | 1.71E+00 | 3.35E-04 | 1.62E+00 | 3.03E-04 | 1.14E+00 | 3.28E-05 | 3.51E-02 | 2.34E-06 |
| 570140 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570141 | 2.78E+04 | 3.47E-01 | 2.63E+04 | 3.47E-01 | 1.89E+04 | 1.82E-01 | 5.81E+02 | 1.11E-02 |
| 570142 | 1.62E+04 | 2.42E-01 | 1.53E+04 | 2.42E-01 | 1.10E+04 | 1.16E-01 | 3.39E+02 | 6.59E-03 |
| 570143 | 3.38E+03 | 6.43E-02 | 3.20E+03 | 6.43E-02 | 2.29E+03 | 2.69E-02 | 7.07E+01 | 1.39E-03 |
| 570144 | 3.87E+02 | 8.78E-03 | 3.66E+02 | 8.77E-03 | 2.63E+02 | 3.54E-03 | 8.08E+00 | 1.76E-04 |
| 570145 | 3.27E+01 | 1.21E-03 | 3.09E+01 | 1.20E-03 | 2.22E+01 | 4.82E-04 | 6.82E-01 | 2.34E-05 |
| 570146 | 2.41E+00 | 1.83E-03 | 2.28E+00 | 1.83E-03 | 1.62E+00 | 7.82E-04 | 4.98E-02 | 3.47E-05 |
| 570147 | 1.93E-01 | 1.42E-03 | 1.83E-01 | 1.42E-03 | 1.10E-01 | 6.11E-04 | 3.40E-03 | 2.71E-05 |
| 570148 | 4.18E-02 | 1.01E-03 | 4.02E-02 | 1.01E-03 | 7.30E-03 | 4.37E-04 | 2.31E-04 | 1.96E-05 |
| 570149 | 3.12E-02 | 6.47E-04 | 3.03E-02 | 6.46E-04 | 1.88E-04 | 2.77E-04 | 1.18E-05 | 1.27E-05 |
| 570150 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570151 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570152 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570153 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570154 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570155 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570156 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 570157 | 3.45E-05 | 6.55E-08 | 3.45E-05 | 6.55E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 570167 | 3.45E-05 | 6.55E-08 | 3.45E-05 | 6.55E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 570177 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 570187 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 570197 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 570207 | 3.45E-05 | 6.54E-08 | 3.45E-05 | 6.54E-08 | 1.58E-07 | 2.62E-08 | 1.23E-08 | 2.40E-09 |
| 571128 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571129 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571130 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571131 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571132 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571133 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571134 | 3.08E-02 | 3.35E-05 | 3.02E-02 | 3.35E-05 | 1.57E-04 | 1.34E-05 | 1.10E-05 | 1.24E-06 |
| 571135 | 3.11E-02 | 3.46E-05 | 3.06E-02 | 3.44E-05 | 5.44E-04 | 1.34E-05 | 2.25E-05 | 1.24E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at TI0000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 571136 | 1.48E+01 | 4.49E-04 | 1.41E+01 | 4.35E-04 | 1.01E+01 | 1.36E-04 | 3.10E-01 | 7.44E-06 |
| 571137 | 2.12E+04 | 2.92E-01 | 2.00E+04 | 2.92E-01 | 1.44E+04 | 1.45E-01 | 4.42E+02 | 8.59E-03 |
| 571138 | 4.19E+04 | 4.33E-01 | 3.96E+04 | 4.33E-01 | 2.85E+04 | 2.50E-01 | 8.76E+02 | 1.68E-02 |
| 571139 | 1.46E+04 | 2.23E-01 | 1.37E+04 | 2.23E-01 | 9.86E+03 | 1.05E-01 | 3.04E+02 | 5.90E-03 |
| 571140 | 3.68E+03 | 6.90E-02 | 3.48E+03 | 6.89E-02 | 2.49E+03 | 2.89E-02 | 7.69E+01 | 1.50E-03 |
| 571141 | 8.76E+00 | 7.06E-04 | 8.29E+00 | 6.69E-04 | 5.92E+00 | 1.76E-04 | 1.82E-01 | 8.98E-06 |
| 571142 | 3.27E+02 | 7.94E-03 | 3.09E+02 | 7.92E-03 | 2.22E+02 | 3.17E-03 | 6.82E+00 | 1.57E-04 |
| 571143 | 1.49E+01 | 3.91E-03 | 1.42E+01 | 3.90E-03 | 1.01E+01 | 1.65E-03 | 3.12E-01 | 7.29E-05 |
| 571144 | 6.27E-01 | 4.14E-03 | 5.93E-01 | 4.13E-03 | 4.04E-01 | 1.78E-03 | 1.25E-02 | 7.77E-05 |
| 571145 | 5.38E-02 | 2.50E-03 | 5.17E-02 | 2.49E-03 | 1.56E-02 | 1.07E-03 | 4.85E-04 | 4.72E-05 |
| 571146 | 3.20E-02 | 4.76E-03 | 3.11E-02 | 4.76E-03 | 7.66E-04 | 2.06E-03 | 2.97E-05 | 9.02E-05 |
| 571147 | 3.09E-02 | 3.11E-03 | 3.02E-02 | 3.11E-03 | 1.81E-04 | 1.35E-03 | 1.15E-05 | 5.92E-05 |
| 571148 | 3.07E-02 | 1.66E-03 | 3.01E-02 | 1.66E-03 | 1.46E-04 | 7.19E-04 | 1.04E-05 | 3.19E-05 |
| 571149 | 3.06E-02 | 7.59E-04 | 3.01E-02 | 7.59E-04 | 1.42E-04 | 3.30E-04 | 1.03E-05 | 1.50E-05 |
| 571150 | 3.03E-02 | 2.97E-04 | 3.00E-02 | 2.97E-04 | 1.37E-04 | 1.29E-04 | 1.00E-05 | 6.21E-06 |
| 571151 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571152 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571153 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571154 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571155 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 571156 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572128 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572129 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572130 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572131 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572132 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572133 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572134 | 3.02E-02 | 3.34E-05 | 3.00E-02 | 3.34E-05 | 1.35E-04 | 1.34E-05 | 9.91E-06 | 1.23E-06 |
| 572135 | 3.01E-02 | 3.46E-05 | 3.00E-02 | 3.45E-05 | 1.31E-04 | 1.34E-05 | 9.69E-06 | 1.24E-06 |
| 572136 | 3.09E-02 | 3.48E-05 | 3.02E-02 | 3.47E-05 | 1.42E-04 | 1.34E-05 | 1.03E-05 | 1.24E-06 |
| 572137 | 4.81E-01 | 2.09E-04 | 4.58E-01 | 1.89E-04 | 3.06E-01 | 2.07E-05 | 9.44E-03 | 1.68E-06 |
| 572138 | 4.98E+02 | 1.03E-02 | 4.71E+02 | 1.03E-02 | 3.38E+02 | 4.04E-03 | 1.04E+01 | 2.04E-04 |
| 572139 | 6.21E+03 | 1.11E-01 | 5.87E+03 | 1.11E-01 | 4.21E+03 | 4.77E-02 | 1.30E+02 | 2.52E-03 |
| 572140 | 6.51E+01 | 1.65E-03 | 6.15E+01 | 1.61E-03 | 4.42E+01 | 5.52E-04 | 1.36E+00 | 2.84E-05 |
| 572141 | 4.77E-02 | 3.71E-04 | 4.65E-02 | 3.47E-04 | 1.19E-02 | 7.93E-05 | 3.72E-04 | 4.22E-06 |
| 572142 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572143 | 3.13E-02 | 1.61E-03 | 3.11E-02 | 1.61E-03 | 9.05E-04 | 6.77E-04 | 3.35E-05 | 3.00E-05 |
| 572144 | 3.01E-02 | 1.68E-03 | 3.00E-02 | 1.68E-03 | 1.48E-04 | 7.19E-04 | 1.02E-05 | 3.19E-05 |
| 572145 | 3.00E-02 | 8.48E-04 | 3.00E-02 | 8.48E-04 | 1.29E-04 | 3.68E-04 | 9.58E-06 | 1.67E-05 |
| 572146 | 3.01E-02 | 2.34E-03 | 3.00E-02 | 2.34E-03 | 1.32E-04 | 1.02E-03 | 9.72E-06 | 4.50E-05 |
| 572147 | 3.01E-02 | 1.46E-03 | 3.00E-02 | 1.46E-03 | 1.32E-04 | 6.37E-04 | 9.71E-06 | 2.83E-05 |
| 572148 | 3.01E-02 | 7.42E-04 | 3.00E-02 | 7.42E-04 | 1.31E-04 | 3.23E-04 | 9.70E-06 | 1.47E-05 |
| 572149 | 3.01E-02 | 3.33E-04 | 3.00E-02 | 3.33E-04 | 1.31E-04 | 1.44E-04 | 9.70E-06 | 6.89E-06 |
| 572150 | 3.01E-02 | 1.39E-04 | 3.00E-02 | 1.39E-04 | 1.31E-04 | 5.93E-05 | 9.68E-06 | 3.22E-06 |
| 572151 | 3.00E-02 | 8.31E-05 | 2.99E-02 | 8.31E-05 | 1.29E-04 | 3.50E-05 | 9.57E-06 | 2.17E-06 |
| 572152 | 2.99E-02 | 3.35E-05 | 2.99E-02 | 3.35E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572153 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572154 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 572155 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 572156 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573128 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573129 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573130 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573131 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573132 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573133 | 2.99E-02 | 3.34E-05 | 2.99E-02 | 3.34E-05 | 1.27E-04 | 1.34E-05 | 9.45E-06 | 1.23E-06 |
| 573134 | 8.68E-01 | 3.34E-05 | 8.68E-01 | 3.34E-05 | 1.71E-01 | 1.34E-05 | 1.69E-02 | 1.23E-06 |
| 573135 | 3.01E-02 | 3.41E-05 | 3.00E-02 | 3.40E-05 | 1.32E-04 | 1.34E-05 | 9.72E-06 | 1.23E-06 |
| 573136 | 4.93E-02 | 3.60E-05 | 4.93E-02 | 3.59E-05 | 4.09E-03 | 1.42E-05 | 3.99E-04 | 1.26E-06 |
| 573137 | 7.76E+00 | 4.08E-05 | 7.76E+00 | 4.07E-05 | 1.50E+00 | 1.63E-05 | 1.75E-01 | 1.35E-06 |
| 573138 | 3.34E-02 | 1.81E-04 | 3.32E-02 | 1.64E-04 | 2.45E-03 | 1.73E-05 | 8.11E-05 | 1.52E-06 |
| 573139 | 2.21E-01 | 2.36E-04 | 2.10E-01 | 2.12E-04 | 1.29E-01 | 1.99E-05 | 3.99E-03 | 1.68E-06 |
| 573140 | 3.08E-02 | 1.73E-04 | 3.07E-02 | 1.57E-04 | 6.91E-04 | 1.75E-05 | 2.69E-05 | 1.53E-06 |
| 573141 | 2.99E-02 | 4.43E-05 | 2.99E-02 | 4.43E-05 | 1.31E-04 | 1.80E-05 | 9.61E-06 | 1.46E-06 |
| 573142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 573143 | 2.99E-02 | 1.03E-04 | 2.99E-02 | 1.03E-04 | 1.27E-04 | 4.35E-05 | 9.46E-06 | 2.57E-06 |
| 573144 | 2.99E-02 | 1.21E-04 | 2.99E-02 | 1.20E-04 | 1.27E-04 | 5.11E-05 | 9.46E-06 | 2.90E-06 |
| 573145 | 2.99E-02 | 8.63E-05 | 2.99E-02 | 8.63E-05 | 1.27E-04 | 3.63E-05 | 9.45E-06 | 2.26E-06 |
| 573146 | 2.99E-02 | 2.24E-04 | 2.99E-02 | 2.24E-04 | 1.27E-04 | 9.64E-05 | 9.47E-06 | 4.86E-06 |
| 573147 | 2.99E-02 | 1.79E-04 | 2.99E-02 | 1.79E-04 | 1.27E-04 | 7.68E-05 | 9.47E-06 | 4.01E-06 |
| 573148 | 2.99E-02 | 1.21E-04 | 2.99E-02 | 1.21E-04 | 1.27E-04 | 5.16E-05 | 9.48E-06 | 2.92E-06 |
| 573149 | 2.99E-02 | 8.12E-05 | 2.99E-02 | 8.12E-05 | 1.27E-04 | 3.42E-05 | 9.48E-06 | 2.16E-06 |
| 573150 | 3.00E-02 | 5.18E-05 | 2.99E-02 | 5.18E-05 | 1.27E-04 | 2.14E-05 | 9.49E-06 | 1.61E-06 |
| 573151 | 2.99E-02 | 4.22E-05 | 2.99E-02 | 4.22E-05 | 1.27E-04 | 1.72E-05 | 9.47E-06 | 1.43E-06 |
| 573152 | 2.99E-02 | 3.53E-05 | 2.99E-02 | 3.53E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.29E-06 |
| 573153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 573154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 573155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 573156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574128 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574129 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574130 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574131 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574140 | 2.99E-02 | 3.53E-05 | 2.99E-02 | 3.53E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574143 | 2.99E-02 | 3.55E-05 | 2.99E-02 | 3.55E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 574144 | 2.99E-02 | 3.57E-05 | 2.99E-02 | 3.56E-05 | 1.27E-04 | 1.43E-05 | 9.45E-06 | 1.30E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 574145 | 2.99E-02 | 3.58E-05 | 2.99E-02 | 3.58E-05 | 1.27E-04 | 1.44E-05 | 9.45E-06 | 1.30E-06 |
| 574146 | 2.99E-02 | 3.82E-05 | 2.99E-02 | 3.82E-05 | 1.27E-04 | 1.54E-05 | 9.45E-06 | 1.35E-06 |
| 574147 | 2.99E-02 | 3.88E-05 | 2.99E-02 | 3.88E-05 | 1.27E-04 | 1.57E-05 | 9.45E-06 | 1.36E-06 |
| 574148 | 2.99E-02 | 3.92E-05 | 2.99E-02 | 3.92E-05 | 1.27E-04 | 1.59E-05 | 9.45E-06 | 1.37E-06 |
| 574149 | 2.99E-02 | 3.95E-05 | 2.99E-02 | 3.95E-05 | 1.27E-04 | 1.60E-05 | 9.45E-06 | 1.37E-06 |
| 574150 | 2.99E-02 | 3.80E-05 | 2.99E-02 | 3.80E-05 | 1.27E-04 | 1.54E-05 | 9.45E-06 | 1.35E-06 |
| 574151 | 2.99E-02 | 3.69E-05 | 2.99E-02 | 3.69E-05 | 1.27E-04 | 1.49E-05 | 9.45E-06 | 1.33E-06 |
| 574152 | 2.99E-02 | 3.55E-05 | 2.99E-02 | 3.55E-05 | 1.27E-04 | 1.43E-05 | 9.45E-06 | 1.30E-06 |
| 574153 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 574156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575128 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575129 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575130 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575131 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575148 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575149 | 2.99E-02 | 3.53E-05 | 2.99E-02 | 3.53E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 575150 | 2.99E-02 | 3.53E-05 | 2.99E-02 | 3.53E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.29E-06 |
| 575151 | 2.99E-02 | 3.57E-05 | 2.99E-02 | 3.57E-05 | 1.27E-04 | 1.44E-05 | 9.45E-06 | 1.30E-06 |
| 575152 | 2.99E-02 | 3.54E-05 | 2.99E-02 | 3.54E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 575153 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 575156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576126 | 1.75E-14 | 1.28E-16 | 1.75E-14 | 1.28E-16 | 1.29E-14 | 5.67E-17 | 3.92E-16 | 2.46E-18 |
| 576127 | 5.17E-15 | 6.11E-14 | 5.17E-15 | 6.11E-14 | 3.81E-15 | 2.66E-14 | 1.16E-16 | 1.15E-15 |
| 576128 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576129 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576130 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576131 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 576133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576151 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576152 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 576156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577124 | 4.62E-22 | 4.91E-19 | 1.08E-22 | 4.91E-19 | 5.12E-24 | 2.14E-19 | 2.87E-25 | 9.26E-21 |
| 577125 | 1.55E-13 | 1.13E-15 | 1.55E-13 | 1.13E-15 | 1.14E-13 | 4.97E-16 | 3.48E-15 | 2.16E-17 |
| 577126 | 5.62E-14 | 4.85E-13 | 5.62E-14 | 4.85E-13 | 4.14E-14 | 2.11E-13 | 1.26E-15 | 9.16E-15 |
| 577127 | 2.61E-14 | 1.15E-10 | 2.29E-14 | 1.15E-10 | 1.61E-14 | 5.02E-11 | 4.94E-16 | 2.18E-12 |
| 577128 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577129 | 2.99E-02 | 3.54E-05 | 2.99E-02 | 3.54E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 577130 | 2.99E-02 | 3.73E-05 | 2.99E-02 | 3.73E-05 | 1.27E-04 | 1.51E-05 | 9.45E-06 | 1.33E-06 |
| 577131 | 2.99E-02 | 3.97E-05 | 2.99E-02 | 3.97E-05 | 1.27E-04 | 1.61E-05 | 9.45E-06 | 1.38E-06 |
| 577132 | 2.99E-02 | 3.77E-05 | 2.99E-02 | 3.77E-05 | 1.27E-04 | 1.52E-05 | 9.45E-06 | 1.34E-06 |
| 577133 | 2.99E-02 | 3.53E-05 | 2.99E-02 | 3.53E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.29E-06 |
| 577134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 577148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 577156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578122 | 7.28E-12 | 1.84E-15 | 7.28E-12 | 1.84E-15 | 5.36E-12 | 1.09E-15 | 1.63E-13 | 4.65E-17 |
| 578123 | 2.13E-12 | 5.55E-16 | 2.13E-12 | 5.55E-16 | 1.57E-12 | 3.27E-16 | 4.77E-14 | 1.39E-17 |
| 578124 | 9.73E-13 | 6.43E-15 | 9.73E-13 | 6.43E-15 | 7.17E-13 | 2.84E-15 | 2.18E-14 | 1.23E-16 |
| 578125 | 4.15E-13 | 2.06E-12 | 4.15E-13 | 2.06E-12 | 3.06E-13 | 8.98E-13 | 9.31E-15 | 3.89E-14 |
| 578126 | 2.08E-13 | 4.17E-10 | 1.93E-13 | 4.17E-10 | 1.39E-13 | 1.81E-10 | 4.24E-15 | 7.87E-12 |
| 578127 | 1.46E-12 | 3.80E-08 | 3.95E-13 | 3.80E-08 | 6.60E-14 | 1.65E-08 | 2.40E-15 | 7.17E-10 |
| 578128 | 2.99E-02 | 3.66E-05 | 2.99E-02 | 3.66E-05 | 1.27E-04 | 1.47E-05 | 9.45E-06 | 1.32E-06 |
| 578129 | 2.99E-02 | 5.25E-05 | 2.99E-02 | 5.25E-05 | 1.27E-04 | 2.17E-05 | 9.45E-06 | 1.62E-06 |
| 578130 | 2.99E-02 | 8.60E-05 | 2.99E-02 | 8.60E-05 | 1.27E-04 | 3.63E-05 | 9.45E-06 | 2.25E-06 |
| 578131 | 2.99E-02 | 7.94E-05 | 2.99E-02 | 7.94E-05 | 1.27E-04 | 3.34E-05 | 9.45E-06 | 2.13E-06 |
| 578132 | 2.99E-02 | 4.38E-05 | 2.99E-02 | 4.38E-05 | 1.27E-04 | 1.79E-05 | 9.45E-06 | 1.46E-06 |
| 578133 | 2.99E-02 | 3.54E-05 | 2.99E-02 | 3.54E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 578134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 578143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 578156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579121 | 2.64E-11 | 6.68E-15 | 2.64E-11 | 6.68E-15 | 1.95E-11 | 3.97E-15 | 5.93E-13 | 1.69E-16 |
| 579122 | 1.46E-11 | 3.99E-15 | 1.46E-11 | 3.99E-15 | 1.08E-11 | 2.32E-15 | 3.28E-13 | 9.89E-17 |
| 579123 | 3.04E-12 | 1.55E-14 | 3.04E-12 | 1.55E-14 | 2.24E-12 | 6.85E-15 | 6.82E-14 | 2.96E-16 |
| 579124 | 2.01E-12 | 3.64E-12 | 2.01E-12 | 3.64E-12 | 1.48E-12 | 1.59E-12 | 4.50E-14 | 6.88E-14 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 579125 | 1.21E-12 | 5.94E-10 | 1.17E-12 | 5.94E-10 | 8.51E-13 | 2.59E-10 | 2.59E-14 | 1.12E-11 |
| 579126 | 3.50E-12 | 6.92E-09 | 1.20E-12 | 6.92E-08 | 3.96E-13 | 3.01E-08 | 1.29E-14 | 1.31E-09 |
| 579127 | 9.51E-11 | 2.57E-06 | 2.24E-11 | 2.57E-06 | 1.22E-12 | 1.12E-06 | 6.38E-14 | 4.86E-08 |
| 579128 | 2.99E-02 | 7.39E-05 | 2.99E-02 | 7.39E-05 | 1.27E-04 | 3.10E-05 | 9.45E-06 | 2.03E-06 |
| 579129 | 2.99E-02 | 2.14E-04 | 2.99E-02 | 2.14E-04 | 1.27E-04 | 9.21E-05 | 9.45E-06 | 4.67E-06 |
| 579130 | 2.99E-02 | 2.82E-04 | 2.99E-02 | 2.82E-04 | 1.27E-04 | 1.22E-04 | 9.45E-06 | 5.97E-06 |
| 579131 | 2.99E-02 | 1.22E-04 | 2.99E-02 | 1.22E-04 | 1.27E-04 | 5.21E-05 | 9.45E-06 | 2.94E-06 |
| 579132 | 2.99E-02 | 4.39E-05 | 2.99E-02 | 4.39E-05 | 1.27E-04 | 1.79E-05 | 9.45E-06 | 1.46E-06 |
| 579133 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.29E-06 |
| 579134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.48E-06 | 1.29E-06 |
| 579143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 579147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 579148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 579149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 579156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580057 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 580067 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 580077 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 580087 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 580097 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 580107 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 580120 | 5.11E-11 | 1.29E-14 | 5.11E-11 | 1.29E-14 | 3.76E-11 | 7.66E-15 | 1.15E-12 | 3.26E-16 |
| 580121 | 4.86E-11 | 1.31E-14 | 4.86E-11 | 1.31E-14 | 3.58E-11 | 7.65E-15 | 1.09E-12 | 3.25E-16 |
| 580122 | 6.22E-12 | 2.03E-14 | 6.22E-12 | 2.03E-14 | 4.58E-12 | 9.08E-15 | 1.39E-13 | 3.94E-16 |
| 580123 | 4.76E-12 | 2.46E-12 | 4.76E-12 | 2.46E-12 | 3.51E-12 | 1.07E-12 | 1.07E-13 | 4.64E-14 |
| 580124 | 3.29E-12 | 4.07E-10 | 3.21E-12 | 4.07E-10 | 2.35E-12 | 1.77E-10 | 7.17E-14 | 7.68E-12 |
| 580125 | 6.47E-12 | 3.85E-08 | 3.12E-12 | 3.85E-08 | 1.60E-12 | 1.68E-08 | 4.98E-14 | 7.28E-10 |
| 580126 | 1.25E-10 | 2.05E-06 | 3.04E-11 | 2.05E-06 | 2.49E-12 | 8.94E-07 | 1.10E-13 | 3.88E-08 |
| 580127 | 1.55E-09 | 3.91E-05 | 3.65E-10 | 3.91E-05 | 1.77E-11 | 1.70E-05 | 9.78E-13 | 7.38E-07 |
| 580128 | 2.99E-02 | 2.90E-04 | 2.99E-02 | 2.90E-04 | 1.27E-04 | 1.26E-04 | 9.45E-06 | 6.12E-06 |
| 580129 | 2.99E-02 | 5.58E-04 | 2.99E-02 | 5.58E-04 | 1.27E-04 | 2.42E-04 | 9.45E-06 | 1.12E-05 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 580130 | 2.99E-02 | 3.48E-04 | 2.99E-02 | 3.48E-04 | 1.27E-04 | 1.51E-04 | 9.45E-06 | 7.21E-06 |
| 580131 | 2.99E-02 | 9.58E-05 | 2.99E-02 | 9.58E-05 | 1.27E-04 | 4.05E-05 | 9.45E-06 | 2.44E-06 |
| 580132 | 2.99E-02 | 3.84E-05 | 2.99E-02 | 3.84E-05 | 1.27E-04 | 1.55E-05 | 9.45E-06 | 1.35E-06 |
| 580133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.51E-06 | 1.29E-06 |
| 580143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 580145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 580146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 580147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 580148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.46E-06 | 1.29E-06 |
| 580149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 580157 | 9.36E-05 | 2.42E-07 | 9.36E-05 | 2.42E-07 | 4.64E-07 | 9.71E-08 | 3.74E-08 | 8.88E-09 |
| 580167 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 580177 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 580187 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 580197 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 580207 | 9.36E-05 | 2.41E-07 | 9.36E-05 | 2.41E-07 | 4.64E-07 | 9.70E-08 | 3.74E-08 | 8.87E-09 |
| 581118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581120 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581121 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581122 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581123 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581124 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581125 | 2.99E-02 | 3.57E-05 | 2.99E-02 | 3.57E-05 | 1.27E-04 | 1.43E-05 | 9.45E-06 | 1.30E-06 |
| 581126 | 2.99E-02 | 5.50E-05 | 2.99E-02 | 5.50E-05 | 1.27E-04 | 2.28E-05 | 9.45E-06 | 1.67E-06 |
| 581127 | 2.99E-02 | 2.13E-04 | 2.99E-02 | 2.13E-04 | 1.27E-04 | 9.17E-05 | 9.45E-06 | 4.66E-06 |
| 581128 | 2.99E-02 | 5.46E-04 | 2.99E-02 | 5.46E-04 | 1.27E-04 | 2.37E-04 | 9.45E-06 | 1.10E-05 |
| 581129 | 2.99E-02 | 4.82E-04 | 2.99E-02 | 4.82E-04 | 1.27E-04 | 2.09E-04 | 9.45E-06 | 9.74E-06 |
| 581130 | 2.99E-02 | 1.65E-04 | 2.99E-02 | 1.65E-04 | 1.27E-04 | 7.09E-05 | 9.45E-06 | 3.76E-06 |
| 581131 | 2.99E-02 | 5.08E-05 | 2.99E-02 | 5.08E-05 | 1.27E-04 | 2.09E-05 | 9.45E-06 | 1.59E-06 |
| 581132 | 2.99E-02 | 3.56E-05 | 2.99E-02 | 3.56E-05 | 1.27E-04 | 1.43E-05 | 9.45E-06 | 1.30E-06 |

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*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 581133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.57E-06 | 1.29E-06 |
| 581142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 581143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.30E-04 | 1.41E-05 | 9.57E-06 | 1.29E-06 |
| 581144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.47E-06 | 1.29E-06 |
| 581145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.47E-06 | 1.29E-06 |
| 581146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.47E-06 | 1.29E-06 |
| 581147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.47E-06 | 1.29E-06 |
| 581148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.47E-06 | 1.29E-06 |
| 581149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 581156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582120 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582121 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582122 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582123 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582124 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582125 | 2.99E-02 | 3.77E-05 | 2.99E-02 | 3.77E-05 | 1.27E-04 | 1.52E-05 | 9.45E-06 | 1.34E-06 |
| 582126 | 2.99E-02 | 8.33E-05 | 2.99E-02 | 8.33E-05 | 1.27E-04 | 3.51E-05 | 9.45E-06 | 2.20E-06 |
| 582127 | 2.99E-02 | 3.04E-04 | 2.99E-02 | 3.04E-04 | 1.27E-04 | 1.31E-04 | 9.45E-06 | 6.37E-06 |
| 582128 | 2.99E-02 | 4.02E-04 | 2.99E-02 | 4.02E-04 | 1.27E-04 | 1.74E-04 | 9.45E-06 | 8.23E-06 |
| 582129 | 2.99E-02 | 1.79E-04 | 2.99E-02 | 1.79E-04 | 1.27E-04 | 7.68E-05 | 9.45E-06 | 4.01E-06 |
| 582130 | 2.99E-02 | 5.15E-05 | 2.99E-02 | 5.15E-05 | 1.27E-04 | 2.12E-05 | 9.45E-06 | 1.60E-06 |
| 582131 | 2.99E-02 | 3.60E-05 | 2.99E-02 | 3.60E-05 | 1.27E-04 | 1.45E-05 | 9.45E-06 | 1.31E-06 |
| 582132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 582142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 582143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.59E-06 | 1.29E-06 |
| 582144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.59E-06 | 1.29E-06 |
| 582145 | 3.00E-02 | 3.51E-05 | 3.00E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.60E-06 | 1.29E-06 |
| 582146 | 3.00E-02 | 3.51E-05 | 3.00E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.60E-06 | 1.29E-06 |
| 582147 | 3.00E-02 | 3.51E-05 | 3.00E-02 | 3.51E-05 | 1.35E-04 | 1.41E-05 | 9.70E-06 | 1.29E-06 |
| 582148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 582156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583117 | 7.83E-23 | 4.70E-24 | 1.83E-23 | 4.70E-24 | 8.67E-25 | 2.05E-24 | 4.85E-26 | 8.87E-26 |
| 583118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583120 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583121 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583122 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583123 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583124 | 2.99E-02 | 3.54E-05 | 2.99E-02 | 3.54E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 583125 | 2.99E-02 | 4.16E-05 | 2.99E-02 | 4.16E-05 | 1.27E-04 | 1.69E-05 | 9.45E-06 | 1.42E-06 |
| 583126 | 2.99E-02 | 9.31E-05 | 2.99E-02 | 9.31E-05 | 1.27E-04 | 3.94E-05 | 9.45E-06 | 2.39E-06 |
| 583127 | 2.99E-02 | 1.44E-04 | 2.99E-02 | 1.44E-04 | 1.27E-04 | 6.15E-05 | 9.45E-06 | 3.35E-06 |
| 583128 | 2.99E-02 | 1.11E-04 | 2.99E-02 | 1.11E-04 | 1.27E-04 | 4.74E-05 | 9.45E-06 | 2.74E-06 |
| 583129 | 2.99E-02 | 5.23E-05 | 2.99E-02 | 5.23E-05 | 1.27E-04 | 2.16E-05 | 9.45E-06 | 1.62E-06 |
| 583130 | 2.99E-02 | 3.60E-05 | 2.99E-02 | 3.60E-05 | 1.27E-04 | 1.45E-05 | 9.45E-06 | 1.31E-06 |
| 583131 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.57E-06 | 1.29E-06 |
| 583142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 583143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.59E-06 | 1.29E-06 |
| 583144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.59E-06 | 1.29E-06 |
| 583145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 583150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 583156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584117 | 2.23E-10 | 5.64E-14 | 2.23E-10 | 5.64E-14 | 1.65E-10 | 3.35E-14 | 5.01E-12 | 1.43E-15 |
| 584118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584120 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584121 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584122 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584123 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584124 | 2.99E-02 | 3.59E-05 | 2.99E-02 | 3.59E-05 | 1.27E-04 | 1.44E-05 | 9.45E-06 | 1.31E-06 |
| 584125 | 2.99E-02 | 4.20E-05 | 2.99E-02 | 4.20E-05 | 1.27E-04 | 1.71E-05 | 9.45E-06 | 1.42E-06 |
| 584126 | 2.99E-02 | 5.11E-05 | 2.99E-02 | 5.11E-05 | 1.27E-04 | 2.10E-05 | 9.45E-06 | 1.59E-06 |
| 584127 | 2.99E-02 | 4.59E-05 | 2.99E-02 | 4.59E-05 | 1.27E-04 | 1.88E-05 | 9.45E-06 | 1.50E-06 |
| 584128 | 2.99E-02 | 3.94E-05 | 2.99E-02 | 3.94E-05 | 1.27E-04 | 1.60E-05 | 9.45E-06 | 1.37E-06 |
| 584129 | 2.99E-02 | 3.56E-05 | 2.99E-02 | 3.56E-05 | 1.27E-04 | 1.43E-05 | 9.45E-06 | 1.30E-06 |
| 584130 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584131 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.30E-04 | 1.41E-05 | 9.57E-06 | 1.29E-06 |
| 584142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.31E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 584143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 584156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585116 | 4.86E-10 | 1.23E-13 | 4.86E-10 | 1.23E-13 | 3.58E-10 | 7.30E-14 | 1.09E-11 | 3.10E-15 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 585117 | 4.26E-10 | 1.08E-13 | 4.26E-10 | 1.08E-13 | 3.14E-10 | 6.38E-14 | 9.55E-12 | 2.72E-15 |
| 585118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585120 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585121 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585122 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585123 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585124 | 2.99E-02 | 3.54E-05 | 2.99E-02 | 3.54E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 585125 | 2.99E-02 | 3.63E-05 | 2.99E-02 | 3.63E-05 | 1.27E-04 | 1.46E-05 | 9.45E-06 | 1.31E-06 |
| 585126 | 2.99E-02 | 3.63E-05 | 2.99E-02 | 3.63E-05 | 1.27E-04 | 1.46E-05 | 9.45E-06 | 1.31E-06 |
| 585127 | 2.99E-02 | 3.57E-05 | 2.99E-02 | 3.57E-05 | 1.27E-04 | 1.44E-05 | 9.45E-06 | 1.30E-06 |
| 585128 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585129 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585130 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585131 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 585156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586115 | 1.22E-22 | 0.00E+00 | 2.85E-23 | 0.00E+00 | 1.35E-24 | 0.00E+00 | 7.53E-26 | 0.00E+00 |
| 586116 | 8.25E-10 | 2.09E-13 | 8.25E-10 | 2.09E-13 | 6.08E-10 | 1.24E-13 | 1.85E-11 | 5.27E-15 |
| 586117 | 7.71E-10 | 1.95E-13 | 7.71E-10 | 1.95E-13 | 5.68E-10 | 1.16E-13 | 1.73E-11 | 4.92E-15 |
| 586118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586120 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586121 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586122 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (3-4 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 586123 | 2.99E-02 | 3.55E-05 | 2.99E-02 | 3.55E-05 | 1.27E-04 | 1.43E-05 | 9.45E-06 | 1.30E-06 |
| 586124 | 2.99E-02 | 3.52E-05 | 2.99E-02 | 3.52E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586125 | 2.99E-02 | 3.53E-05 | 2.99E-02 | 3.53E-05 | 1.27E-04 | 1.42E-05 | 9.45E-06 | 1.30E-06 |
| 586126 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586127 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586128 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586129 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586130 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586131 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586132 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586133 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586134 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586135 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586136 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586137 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586138 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586139 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586140 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586141 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586142 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586143 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586144 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586145 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586146 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586147 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586148 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586149 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586150 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586151 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586152 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586153 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586154 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586155 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 586156 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 587114 | 3.20E-23 | 0.00E+00 | 7.50E-24 | 0.00E+00 | 3.55E-25 | 0.00E+00 | 1.98E-26 | 0.00E+00 |
| 587115 | 1.58E-09 | 3.99E-13 | 1.58E-09 | 3.99E-13 | 1.16E-09 | 2.37E-13 | 3.55E-11 | 1.01E-14 |
| 587116 | 1.42E-09 | 3.59E-13 | 1.42E-09 | 3.59E-13 | 1.05E-09 | 2.13E-13 | 3.19E-11 | 9.07E-15 |
| 587117 | 1.26E-09 | 3.19E-13 | 1.26E-09 | 3.19E-13 | 9.32E-10 | 1.90E-13 | 2.84E-11 | 8.07E-15 |
| 587118 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 587119 | 2.99E-02 | 3.51E-05 | 2.99E-02 | 3.51E-05 | 1.27E-04 | 1.41E-05 | 9.45E-06 | 1.29E-06 |
| 587120 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587121 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587122 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587123 | 3.04E-02 | 3.52E-05 | 3.04E-02 | 3.52E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587124 | 3.04E-02 | 3.61E-05 | 3.04E-02 | 3.61E-05 | 1.29E-04 | 1.45E-05 | 9.58E-06 | 1.31E-06 |
| 587125 | 3.04E-02 | 3.59E-05 | 3.04E-02 | 3.59E-05 | 1.29E-04 | 1.44E-05 | 9.58E-06 | 1.31E-06 |
| 587126 | 3.04E-02 | 3.53E-05 | 3.04E-02 | 3.53E-05 | 1.29E-04 | 1.42E-05 | 9.58E-06 | 1.29E-06 |
| 587127 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 587128 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587129 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587130 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587131 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587132 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587133 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587134 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587135 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587136 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587137 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587138 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587139 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587140 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587141 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587142 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587143 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587144 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587145 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587146 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587147 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587148 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587149 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587150 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587151 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587152 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587153 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587154 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587155 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 587156 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588114 | 2.86E-09 | 7.22E-13 | 2.86E-09 | 7.22E-13 | 2.11E-09 | 4.29E-13 | 6.41E-11 | 1.82E-14 |
| 588115 | 2.60E-09 | 6.57E-13 | 2.60E-09 | 6.57E-13 | 1.92E-09 | 3.90E-13 | 5.83E-11 | 1.66E-14 |
| 588116 | 2.36E-09 | 1.74E-09 | 2.36E-09 | 1.74E-09 | 1.74E-09 | 8.74E-10 | 5.29E-11 | 3.95E-11 |
| 588117 | 2.11E-09 | 1.98E-09 | 2.11E-09 | 1.98E-09 | 1.56E-09 | 9.95E-10 | 4.74E-11 | 4.50E-11 |
| 588118 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588119 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588120 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588121 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588122 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588123 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588124 | 3.04E-02 | 3.52E-05 | 3.04E-02 | 3.52E-05 | 1.29E-04 | 1.42E-05 | 9.58E-06 | 1.29E-06 |
| 588125 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588126 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588127 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588128 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588129 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588130 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588131 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588132 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 588133 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588134 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588135 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588136 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588137 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588138 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588139 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588140 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588141 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588142 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588143 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588144 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588145 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588146 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588147 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588148 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588149 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588150 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588151 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588152 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588153 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588154 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588155 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 588156 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589113 | 4.64E-09 | 1.17E-12 | 4.64E-09 | 1.17E-12 | 3.42E-09 | 6.95E-13 | 1.04E-10 | 2.96E-14 |
| 589114 | 4.29E-09 | 1.08E-12 | 4.29E-09 | 1.08E-12 | 3.16E-09 | 6.43E-13 | 9.62E-11 | 2.74E-14 |
| 589115 | 3.92E-09 | 1.74E-09 | 3.92E-09 | 1.74E-09 | 2.89E-09 | 8.75E-10 | 8.80E-11 | 3.95E-11 |
| 589116 | 3.57E-09 | 2.08E-09 | 3.57E-09 | 2.08E-09 | 2.63E-09 | 1.04E-09 | 8.01E-11 | 4.72E-11 |
| 589117 | 3.24E-09 | 2.40E-09 | 3.24E-09 | 2.40E-09 | 2.39E-09 | 1.21E-09 | 7.26E-11 | 5.46E-11 |
| 589118 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589119 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589120 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589121 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589122 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589123 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589124 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589125 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589126 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589127 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589128 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589129 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589130 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589131 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589132 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589133 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589134 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589135 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589136 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at TI0000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 589137 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589138 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589139 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589140 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589141 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589142 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589143 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589144 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589145 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589146 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589147 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589148 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589149 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589150 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589151 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589152 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589153 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589154 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589155 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 589156 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 590057 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 590067 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 590077 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 590087 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 590097 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 590100 | 0.00E+00 | 3.67E-14 | 0.00E+00 | 3.57E-14 | 0.00E+00 | 1.04E-14 | 0.00E+00 | 4.98E-15 |
| 590112 | 7.10E-23 | 0.00E+00 | 1.66E-23 | 0.00E+00 | 7.87E-25 | 0.00E+00 | 4.40E-26 | 0.00E+00 |
| 590113 | 7.05E-09 | 1.78E-12 | 7.05E-09 | 1.78E-12 | 5.20E-09 | 1.06E-12 | 1.58E-10 | 4.50E-14 |
| 590114 | 6.54E-09 | 1.65E-12 | 6.54E-09 | 1.65E-12 | 4.82E-09 | 9.80E-13 | 1.47E-10 | 4.17E-14 |
| 590115 | 6.03E-09 | 2.01E-09 | 6.03E-09 | 2.01E-09 | 4.45E-09 | 1.01E-09 | 1.35E-10 | 4.55E-11 |
| 590116 | 5.52E-09 | 2.40E-09 | 5.52E-09 | 2.40E-09 | 4.07E-09 | 1.21E-09 | 1.24E-10 | 5.46E-11 |
| 590117 | 5.03E-09 | 2.78E-09 | 5.03E-09 | 2.78E-09 | 3.71E-09 | 1.40E-09 | 1.13E-10 | 6.31E-11 |
| 590118 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 590119 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 590120 | 3.04E-02 | 3.51E-05 | 3.04E-02 | 3.51E-05 | 1.29E-04 | 1.41E-05 | 9.58E-06 | 1.29E-06 |
| 590121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 590134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 590147 | 9.48E-05 | 2.53E-07 | 9.48E-05 | 2.53E-07 | 4.69E-07 | 1.01E-07 | 3.77E-08 | 9.28E-09 |
| 590157 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 590167 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 590177 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 590187 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 590197 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 590207 | 9.36E-05 | 2.53E-07 | 9.36E-05 | 2.53E-07 | 4.64E-07 | 1.01E-07 | 3.74E-08 | 9.28E-09 |
| 591108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 591136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 591146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592116 | 3.40E-02 | 4.21E-05 | 3.40E-02 | 4.21E-05 | 1.42E-04 | 1.82E-05 | 1.05E-05 | 1.56E-06 |
| 592117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 592145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 592146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 593146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 594115 | 2.47E-01 | 3.60E-05 | 2.47E-01 | 3.60E-05 | 2.08E-02 | 1.42E-05 | 4.18E-03 | 1.31E-06 |
| 594116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 594146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 595124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 595146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 596133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 596146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 597142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 597146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 598146 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599108 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599109 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599110 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599111 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 599112 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599113 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599114 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599115 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599116 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599117 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599118 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599119 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599120 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599121 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599122 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599123 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599124 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599125 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599126 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599127 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599128 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599129 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599130 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599131 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599132 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599133 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599134 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599135 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599136 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599137 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599138 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599139 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599140 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599141 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599142 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599143 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599144 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599145 | 3.40E-02 | 3.51E-05 | 3.40E-02 | 3.51E-05 | 1.42E-04 | 1.41E-05 | 1.05E-05 | 1.29E-06 |
| 599146 | 6.81E-02 | 7.03E-05 | 6.81E-02 | 7.03E-05 | 2.83E-04 | 2.81E-05 | 2.10E-05 | 2.59E-06 |
| 600057 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600067 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600077 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600087 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600090 | 0.00E+00 | 9.05E-15 | 0.00E+00 | 8.80E-15 | 0.00E+00 | 2.57E-15 | 0.00E+00 | 1.23E-15 |
| 600097 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600100 | 0.00E+00 | 9.05E-15 | 0.00E+00 | 8.80E-15 | 0.00E+00 | 2.57E-15 | 0.00E+00 | 1.23E-15 |
| 600107 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600117 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600127 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 600137 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 600147 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 600157 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 600167 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 600177 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 600187 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 600197 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 600207 | 9.77E-05 | 2.53E-07 | 9.77E-05 | 2.53E-07 | 4.79E-07 | 1.01E-07 | 3.84E-08 | 9.28E-09 |
| 610057 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610067 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610077 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610087 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610097 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610107 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610117 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610127 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610137 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610147 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610157 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610167 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610177 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610187 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610197 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 610207 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620057 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620067 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620077 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620087 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620097 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620107 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620117 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620127 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620137 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620147 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620157 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620167 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620177 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620187 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620197 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 620207 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630057 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630067 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630077 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630087 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630097 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630107 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630117 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630127 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630137 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630147 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630157 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |

*Table B5-7. Statistical Increase in Individual Cancer Risk at T10000 (year 11989). (34 sheets)*

| Cell | Agricultural Scenario | | Residential Scenario | | Industrial Scenario | | Recreational Scenario | |
|---|---|---|---|---|---|---|---|---|
| | Hazard | Risk | Hazard | Risk | Hazard | Risk | Hazard | Risk |
| 630167 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630177 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630187 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630197 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 630207 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640057 | 3.41E-04 | 5.06E-07 | 3.41E-04 | 5.06E-07 | 1.49E-06 | 2.03E-07 | 1.14E-07 | 1.85E-08 |
| 640067 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640077 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640087 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640097 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640107 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640117 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640127 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640137 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640147 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640157 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640167 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640177 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640187 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640197 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |
| 640207 | 1.71E-04 | 2.53E-07 | 1.71E-04 | 2.53E-07 | 7.47E-07 | 1.01E-07 | 5.68E-08 | 9.28E-09 |

*Table B5-8. Maximum Soil Contaminant Concentrations for Each of the Three Geographic Areas. (2 sheets)*

| CONSTITUENT | REACTORS ON THE RIVER | ALL OTHER AREAS | CENTRAL PLATEAU |
|---|---|---|---|
| Radionuclide | Concentration Ci/cm³ | Concentration Ci/cm³ | Concentration Ci/cm³ |
| Am241 | 0.00 | 0.00 | 7.61E-06 |
| C14 | 2.77E-07 | 0.00 | 0.00 |
| Ce144 | 2.87E-11 | 0.00 | 0.00 |
| Co60 | 1.22E-05 | 1.16E-09 | 3.52E-08 |
| Cs134 | 3.31E-10 | 0.00 | 0.00 |
| Cs137 | 5.78E-08 | 1.06E-07 | 8.51E-05 |
| Eu152 | 8.91E-09 | 0.00 | 0.00 |
| Eu154 | 2.33E-09 | 0.00 | 4.24E-16 |
| Eu155 | 1.98E-09 | 0.00 | 0.00 |
| Fe59 | 6.69E-21 | 0.00 | 0.00 |
| H3 | 2.81E-05 | 0.00 | 1.03E-06 |
| I129 | 0.00 | 0.00 | 1.01E-11 |
| Mn54 | 6.40E-11 | 0.00 | 0.00 |
| Nb95 | 2.39E-25 | 0.00 | 0.00 |
| Ni63 | 3.89E-07 | 0.00 | 0.00 |
| Pm147 | 0.00 | 0.00 | 2.40E-09 |
| Pu238 | 1.76E-10 | 0.00 | 1.78E-06 |
| Pu239 | 5.08E-10 | 3.99E-10 | 1.39E-04 |
| Pu240 | 5.65E-11 | 2.21E-12 | 1.54E-05 |
| Pu241 | 0.00 | 0.00 | 2.19E-04 |
| Pu242 | 0.00 | 0.00 | 1.32E-09 |
| Ru103 | 1.13E-23 | 0.00 | 0.00 |
| Ru106 | 1.75E-10 | 0.00 | 3.81E-09 |
| Sb125 | 4.91E-11 | 0.00 | 0.00 |
| Sn113 | 0.00 | 0.00 | 1.39E-12 |
| Sr90 | 4.51E-08 | 1.06E-07 | 4.17E-05 |
| Tc99 | 9.82E-09 | 0.00 | 0.00 |
| Th232 | 0.00 | 1.20E-14 | 1.03E-09 |
| U235 | 9.79E-12 | 1.74E-10 | 2.00E-09 |
| U238 | 1.95E-10 | 3.73E-09 | 1.96E-07 |
| Zr95 | 6.43E-18 | 0.00 | 0.00 |
| **Chemical** | **kg/cm³** | **kg/cm³** | **kg/cm³** |
| AGI | 0.00 | 2.81E-08 | 0.00 |
| AlFNO3 | 0.00 | 0.00 | 4.12E-05 |
| AlNO3 | 0.00 | 0.00 | 3.73E-05 |
| Be | 0.00 | 9.36E-10 | 0.00 |
| BP | 0.00 | 0.00 | 1.97E-05 |
| CaNO3 | 0.00 | 0.00 | 2.55E-05 |
| CCL4 | 0.00 | 0.00 | 4.56E-05 |
| CdII | 0.00 | 1.87E-09 | 0.00 |

*Table B5-8. Maximum Soil Contaminant Concentrations for Each of the Three Geographic Areas. (2 sheets)*

| CONSTITUENT<br>Chemical | REACTORS ON THE RIVER<br>kg/cm³ | ALL OTHER AREAS<br>kg/cm³ | CENTRAL PLATEAU<br>kg/cm³ |
|---|---|---|---|
| CrVI | 0.00 | 9.36E-08 | 0.00 |
| Cu2SO4 | 7.47E-09 | 0.00 | 0.00 |
| CuII | 0.00 | 1.87E-06 | 0.00 |
| DBBP | 0.00 | 0.00 | 2.63E-06 |
| F | 0.00 | 1.87E-07 | 1.38E-02 |
| FeCN | 0.00 | 0.00 | 2.63E-05 |
| FeNO3 | 0.00 | 0.00 | 7.84E-06 |
| H2SO4 | 1.49E-07 | 0.00 | 3.11E-04 |
| Hg | 1.43E-05 | 9.36E-10 | 0.00 |
| HNO3 | 0.00 | 0.00 | 2.27E-04 |
| K | 0.00 | 0.00 | 2.07E-02 |
| KBO2 | 9.42E-05 | 0.00 | 0.00 |
| MgNO3 | 0.00 | 0.00 | 3.53E-05 |
| MIBK | 0.00 | 3.72E-05 | 1.30E-05 |
| Na | 0.00 | 0.00 | 8.62E-02 |
| NaAl | 0.00 | 0.00 | 2.08E-03 |
| NaCr2 | 8.56E-05 | 0.00 | 1.30E-05 |
| NaOH | 3.20E-04 | 0.00 | 1.35E-03 |
| NaOXAL | 8.56E-05 | 0.00 | 3.10E-03 |
| NaSI | 0.00 | 0.00 | 8.33E-04 |
| NaSULFAM | 2.32E-04 | 0.00 | 0.00 |
| NH4CO3 | 0.00 | 0.00 | 4.85E-05 |
| NH4NO3 | 0.00 | 0.00 | 1.38E-03 |
| NiII | 0.00 | 2.81E-07 | 0.00 |
| NO2 | 0.00 | 0.00 | 1.67E-03 |
| NO3 | 0.00 | 1.24E-05 | 1.00E-01 |
| NPH | 0.00 | 0.00 | 1.29E-03 |
| Oxalate | 0.00 | 0.00 | 1.40E-04 |
| PbII | 0.00 | 5.62E-08 | 0.00 |
| PO4 | 0.00 | 0.00 | 7.24E-03 |
| SO4 | 0.00 | 0.00 | 8.28E-04 |
| Sulfacid | 5.31E-07 | 0.00 | 0.00 |
| TBP | 0.00 | 0.00 | 7.14E-04 |
| TBPPH | 0.00 | 0.00 | 1.63E-04 |
| Trichlor | 0.00 | 0.00 | 0.00 |
| U | 0.00 | 2.48E-05 | 0.00 |
| ZnII | 0.00 | 9.36E-08 | 0.00 |

*Table B5-9. Groundwater Contaminant Concentrations and Maximum Radionuclide Inventory for Pump-and-Treat Accident.*

| Constituent | Max GW Concentration (pCi/L) | Inventory (Curies) |
|---|---|---|
| Co-60 | 100 | 1.0E-5 |
| Cs-137 | 120 | 1.2E-5 |
| I-129 | 20 | 2.0E-6 |
| plutonium | 30 | 3.0E-6 |
| Sr-90 | 2500 | 2.5E-4 |
| Tc-99 | 20000 | 2.0E-3 |
| tritium | 2500000 | 2.5E-1 |
| uranium | 2000 | 2.0E-4 |

*Table B5-10. Radionuclide Inventory in One Square Mile in Standing Dry Vegetation.*

| Radionuclide | Concentration in Vegetation (pCi/g dry weight) | Activity in plants in 1 $mi^2$ - Curies |
|---|---|---|
| Sr-90 | .41 | 2.28E-6 |
| Cs-137 | .32 | 1.78E-6 |
| U-NATURAL | .036 | 2.00E-7 |
| U-ISOTOPIC | .0062 | 3.44E-8 |
| Pu-239/240 | .041 | 2.28E-7 |
| Conversion factor for converting pCi/g to Ci/$mi^2$ is 5.56E-6. | | |

*Table B5-11. Results from Pump-and-Treat Accident.*

| Location | 100 BC | 100 D | 100 F | 100 H | 100 K |
|---|---|---|---|---|---|
| Major contributing radionuclides | U-238 | U-238 | U-238 | U-238 | U-238 |
| 100 m dose (mrem) & wind direction | 6.0E+02 (E) *2.4E-04*[a] | 6.2E+02 (E) *2.5E-04*[a] | 6.2E+02 (E) *2.5E-04*[a] | 6.2E+02 (E) *2.5E-04*[a] | 6.2E+02 (E) *2.5E-04*[a] |
| NPAL dose (mrem) | 1.3E+02 *6.5E-05*[a] | 8.8E+01 *4.4E-05*[a] | 2.1E+02 *1.1E-04*[a] | 5.1E+02 *2.6E-04*[a] | 7.1E+01 *3.6E-05*[a] |
| NPAL distance (m) & wind direction | 140 (N) | 270 (W) | 150 (ENE) | 110 (E) | 210 (NW) |
| Site boundary dose (mrem) | 6.1E-01 *3.1E-07*[a] | 5.5-01 *2.8E-07*[a] | 8.0E-01 *4.0E-07*[a] | 6.1E-01 *3.1E-07*[a] | 4.3E-01 *2.2E-07*[a] |
| Site boundary distance (m) & wind direction | 8910 (W) | 9700 (W) | 8510 (E) | 10520 (E) | 11730 (W) |
| Population dose (person-rem) | 5.1E-01 *2.6E-04*[b] | 5.1E-01 *2.6E-04*[b] | 5.1E-01 *2.6E-04*[b] | 5.1E-01 *2.6E-04*[b] | 5.1E-01 *2.6E-04*[b] |
| Highest population downwind sector & wind direction | 97689 (W) | 97689 (W) | 97689 (W) | 97689 (W) | 97689 (W) |

| Location | 100 N | 200 W | 200 E | 300 | 400 |
|---|---|---|---|---|---|
| Major contributing radionuclides | U-238 | U-238 | U-238 | U-328 | U-238 |
| 100 m dose (mrem) & wind direction | 6.0E+02 (E) *2.4E-04*[a] | 2.8E+02 (E) *1.1E-04*[a] | 2.8E+02 (E) *1.1E-04*[a] | 3.5E+02 (N) *1.4E-04*[a] | 2.6E+02 (N) *1.0E-04*[a] |
| NPAL dose (mrem) | 4.9E+02 *2.5E-04*[a] | 6.0E-01 *3.0E-07*[a] | 1.9E-01 *9.5E-08*[a] | 1.9E+02 *9.5E-05*[a] | 1.8E+00 *9.0E-07*[a] |
| NPAL distance (m) & wind direction | 100 (W) | 3920 (W) | 10840 (E) | 120 (E) | 1720 (NNE) |
| Site boundary dose (mrem) | 4.5E-01 *2.3E-07*[a] | 2.0E-01 *1.0E-07*[a] | 1.9E-01 *9.5E-08*[a] | 7.4E+00 *3.7E-06*[a] | 3.7E-01 *1.9E-07*[a] |
| Site boundary distance (m) & wind direction | 11390 (W) | 11720 (W) | 10840 (E) | 840 (E) | 8020 (S) |
| Population dose (person-rem) | 5.1E-01 *2.6E-04*[b] | 4.9E-01 *2.5E-04*[b] | 4.9E-01 *2.5E-04*[b] | 9.4E-01 *4.7E-04*[b] | 6.4E-01 *3.2E-04*[b] |
| Highest population downwind sector & wind direction | 97689 (W) | 114734 (SE) | 114734 (SE) | 57116 (S) | 78757 (SSE) |

[a] Increased probability of this individual contracting a fatal cancer.
[b] Increase in latent cancer fatalitites in this population.

*Table B5-12. Results from Excavation Accident.*

| Location | 100 BC | 100 D | 100 F | 100 H | 100 K |
|---|---|---|---|---|---|
| Major contributing radionuclide | Co-60 | Co-60 | Co-60 | Co-60 | Co-60 |
| 100 m dose (mrem) & wind direction | 4.6E+00 (E) *1.8E-06*[a] | 4.6E+00 (E) *1.8E-06*[a] | 4.6E+00 (E) *1.8E-06*[a] | 4.6E+00 (E) *1.8E-06*[a] | 4.6E-00 (E) *1.8E-06*[a] |
| NPAL dose (mrem) | 1.0E+00 *5.0E-07*[a] | 6.7E-01 *3.4E-07*[a] | 1.6E+00 *8.0E-07*[a] | 3.9E+00 *2.0E-06*[a] | 5.4E-01 *2.7E-07*[a] |
| NPAL distance (m) & wind direction | 140 (N) | 270 (W) | 150 (ENE) | 110 (E) | 210 (NW) |
| Site boundary dose (mrem) | 7.8E-02 *3.9E-08*[a] | 7.0E-02 *3.5E-08*[a] | 1.0E-01 *5.0E-08*[a] | 7.9E-02 *4.0E-08*[a] | 5.5E-02 *2.8E-08*[a] |
| Site boundary distance (m) & wind direction | 8910 (W) | 9700 (W) | 8510 (E) | 10520 (E) | 11730 (W) |
| Population dose (person-rem) | 5.5E-02 *2.8E-05*[b] | 5.5E-02 *2.8E-05*[b] | 5.5E-02 *2.8E-05*[b] | 5.5E-02 *2.8E-05*[b] | 5.5E-02 *2.8E-05*[b] |
| Highest population downwind sector & wind direction | 97689 (W) | 97689 (W) | 97689 (W) | 97689 (W) | 97689 (W) |

| Location | 100 N | 200 W | 200 E | 300 | 400 |
|---|---|---|---|---|---|
| Major contributing radionuclide | Co-60 | Pu-239 | Pu-239 | U-238 | U-238 |
| 100 m dose (mrem) & wind direction | 4.6E+00 (E) *1.8E-06*[a] | 5.4E+04 (E) *2.2E-02*[a] | 5.4E+04 (E) *2.2E-02*[a] | 6.1E-01 (N) *2.4E-07*[a] | 4.6E-01 (N) *1.8E-07*[a] |
| NPAL dose (mrem) | 3.7E+00 *1.9E-06*[a] | 1.2E+02 *6.0E-05*[a] | 3.7E+01 *1.9E-05*[a] | 3.3E-01 *1.7E-07*[a] | 3.2E-03 *1.6E-09*[a] |
| NPAL distance (m) & wind direction | 100 (W) | 3920 (W) | 10840 (E) | 120 (E) | 1720 (NNE) |
| Site boundary dose (mrem) | 5.7E-02 *2.9E-08*[a] | 4.8E+01 *2.4E-05*[a] | 4.4E+01 *2.2E-05*[a] | 5.9E-02 *3.0E-08*[a] | 3.0E-03 *1.5E-09*[a] |
| Site boundary distance (m) & wind direction | 11390 (W) | 11720 (W) | 10840 (E) | 840 (E) | 8020 (S) |
| Population dose (person-rem) | 5.5E-02 *2.8E-05*[b] | 5.3E-02 *2.7E-05*[b] | 1.1E-02 *5.5E-06*[b] | 6.2E-03 *3.1E-06*[b] | 4.2E-03 *2.1E-06*[b] |
| Highest population downwind sector & wind direction | 97689 (W) | 114734 (SE) | 114734 (SE) | 57116 (S) | 78757 (SSE) |

[a] Increased probability of this individual contracting a fatal cancer.
[b] Increase in latent cancer fatalities in this population.

*Table B5-13. Results from Range Fire.*

| Location | 100 BC | 100 D | 100 F | 100 H | 100 K |
|---|---|---|---|---|---|
| 100 m dose (mrem) & wind direction | 3.0E+00 (E) *1.2E-06*[a] | 3.0E+00 (E) *1.2E-06*[a] | 3.0E+00 (E) *1.2E-06*[a] | 3.0E+00 (E) *1.2E-06*[a] | 3.0E+00 (E) *1.2E-06*[a] |
| NPAL dose (mrem) | 6.8E-01 *3.4E-07*[a] | 4.4E-01 *2.2E-07*[a] | 1.1E+00 *5.5E-07*[a] | 2.6E+00 *1.3E-06*[a] | 3.6E-01 *1.8E-07*[a] |
| NPAL distance (m) & wind direction | 140 (N) | 270 (W) | 150 (ENE) | 110 (E) | 210 (NW) |
| Site Boundary dose (mrem) | 4.6E-03 *2.3E-09*[a] | 4.1E-03 *2.1E-09*[a] | 6.0E-03 *3.0E-09*[a] | 4.6E-03 *2.3E-09*[a] | 3.2E-03 *1.6E-09*[a] |
| Site Boundary Distance (m) & wind direction | 8910 (W) | 9700 (W) | 8510 (E) | 10520 (E) | 11730 (W) |
| Population Dose (person-rem) | 3.4E-03 *1.7E-06*[b] | 3.4E-03 *1.7E-06*[b] | 3.4E-03 *1.7E-06*[b] | 3.4E-03 *1.7E-06*[b] | 3.4E-03 *1.7E-06*[b] |
| Highest population downwind sector & wind direction | 97689 (W) | 97689 (W) | 97689 (W) | 97689 (W) | 97689 (W) |

| Location | 100 N | 200 W | 200 E | 300 | 400 |
|---|---|---|---|---|---|
| 100 m dose (mrem) & wind direction | 3.0E+00 (E) *1.2E-06*[a] | 1.4E+00 (E) *5.6E-07*[a] | 1.4E+00 (E) *5.6E-07*[a] | 1.7E+00 (N) *6.8E-07*[a] | 1.3E+00 (N) *5.2E-07*[a] |
| NPAL dose (mrem) | 2.4E+00 *1.2E-06*[a] | 3.0E-03 *1.5E-09*[a] | 9.7E-04 *4.9E-10*[a] | 9.5E-01 *4.8E-07*[a] | 9.3E-03 *4.7E-09*[a] |
| NPAL distance (m) & wind direction | 100 (W) | 3920 (W) | 10840 (E) | 120 (E) | 1720 (NNE) |
| Site Boundary dose (mrem) | 3.3E-03 *1.7E-09*[a] | 1.5E-03 *7.5E-10*[a] | 1.4E-03 *7.0E-10*[a] | 5.5E-02 *2.8E-08*[a] | 2.8E-03 *1.4E-09*[a] |
| Site Boundary Distance (m) & wind direction | 11390 (W) | 11720 (W) | 10840 (E) | 840 (E) | 8020 (S) |
| Population Dose (person-rem) | 3.4E-03 *1.7E-06*[b] | 3.3E-03 *1.7E-06*[b] | 3.3E-03 *1.7E-06*[b] | 6.3E-03 *3.2E-06*[b] | 4.3E-03 *2.2E-06*[b] |
| Highest population downwind sector & wind direction | 97689 (W) | 114734 (SE) | 114734 (SE) | 57116 (S) | 78757 (SSE) |

[a] Increased probability of this individual contracting a fatal cancer.
[b] Increase in latent cancer fatalities in this population.

# Appendix C

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# C.0 Ecological Risk Assessment Methodology and Calculations

This appendix describes the methods used to estimate radiation doses and hazard indices associated with intake of hazardous chemicals for ecological receptors at the Hanford Site. Detailed results are also presented. Results are summarized by geographic area in Chapter 5.0 of the *Hanford Remedial Action Environmental Impact Statement* (HRA-EIS).

## C.1 Ecological Risk Assessment Methodology

The general approach used in the *Hanford Remedial Action Environmental Impact Statement* (EIS) follows the approach recommended in the *Hanford Site Baseline Risk Assessment Methodology (HSBRAM)* (DOE-RL 1993). The basic steps in ecological risk assessment are (1) problem formulation, (2) characterization of potential exposures and associated ecological effects, and (3) a comprehensive presentation of the results as a risk characterization (EPA 1992). This section describes those steps in terms specific to this EIS. Further detail on the general process of ecological assessment at the Hanford Site and elsewhere may be found in the references cited in this appendix.

### C.1.1 Problem Formulation

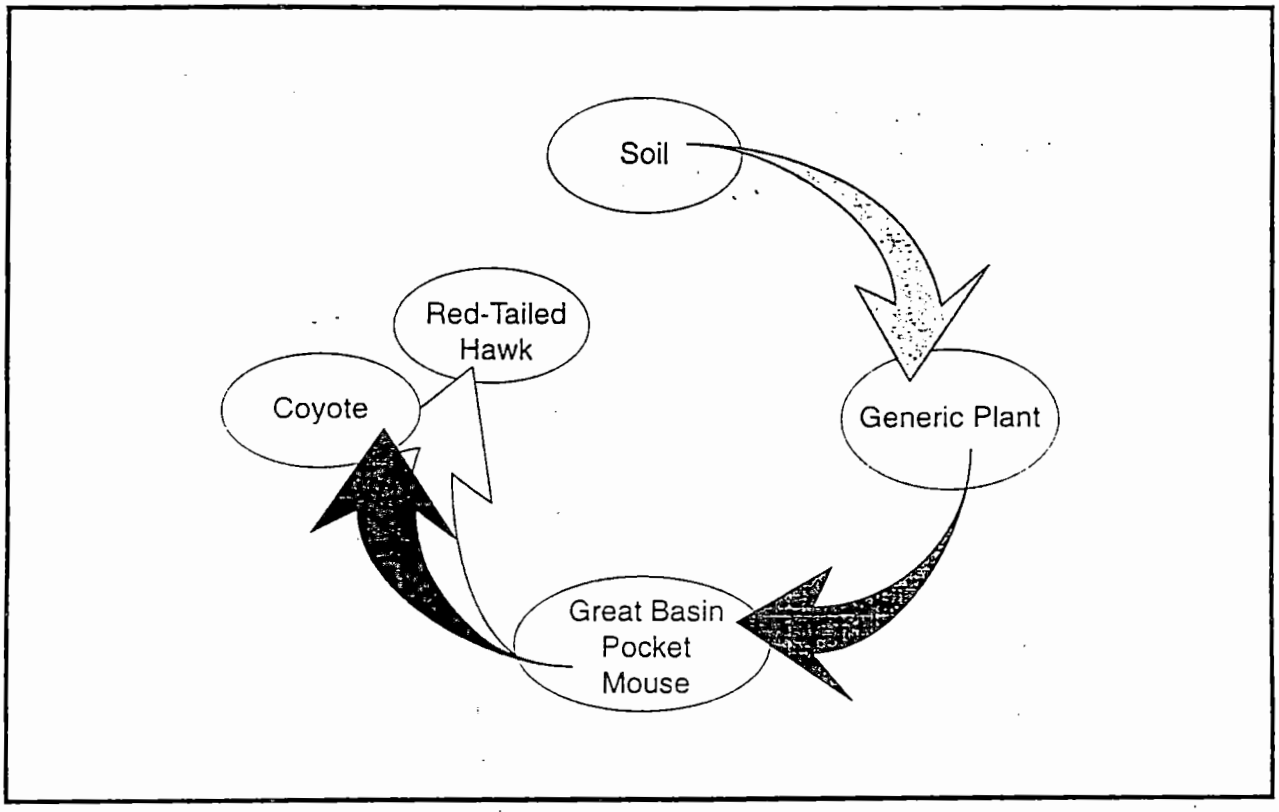
The Hanford Site supports a variety of arid terrestrial habitats; a major aquatic habitat in the Columbia River; and a number of threatened, endangered, or candidate species as described in Chapter 4.0 of this EIS. These habitats and adjacent off-site habitats constitute the ecosystem potentially at risk for purposes of this EIS. Contaminants of potential concern include a wide variety of radionuclides and hazardous chemicals. Ecological receptors may be exposed to these substances in surface and subsurface soils, ground and surface water, and via uptake through the food chain. Effects of exposure can be chronic, such as effects on the development and viability of offspring, or acute, such as direct mortality, depending on the magnitude and frequency of exposure.

Preparation of an ecological risk assessment requires selection of assessment and measurement endpoints. Assessment endpoints are the specific ecological characteristics to be protected; and measurement endpoints are characteristics that can be measured and correspond in some way to the assessment endpoints. In this EIS, the assessment endpoint for effects of radionuclides and hazardous chemicals is prevention of adverse effects of these substances on ecological receptors. The measurement endpoints that correspond to this assessment endpoint are (1) estimated radiation dose, which is compared to the 1 rad/day expected to have no adverse effects on aquatic organisms (NCRP 1991) and the 0.1 rad/day considered protective of terrestrial organisms (IAEA 1992) and (2) the ratio of estimated intake of hazardous chemicals compared to the intake expected to have No Observable Adverse Effects Level (NOAEL). The latter ratio is called the hazard index (HI); a value greater than 1.0 indicates a potential for adverse effects.

### C.1.2 Conceptual Model

Estimating potential radiation and hazardous chemical effects requires a conceptual model that illustrates transport of constituents of potential concern to ecological receptors. The conceptual model used in this analysis is a simple food chain consisting of three wildlife species and a generic

*Figure C-1. Conceptual Model for Estimating Hazard Indices and Radiation Doses to Ecological Receptors.*



plant (Figure C-1). Wildlife species are the Great Basin pocket mouse, coyote, and red-tailed hawk). The single exposure pathway considered is plant uptake from soil followed by ingestion of vegetation by the pocket mouse and ingestion of mice by the coyote and the hawk. This model was designed to assess effects at several trophic levels (primary producer, herbivore, and mammalian and avian carnivore) while being simple enough to efficiently assess potential effects at the many waste sites within the scope of this EIS. In addition, hazards to aquatic receptors were assessed by estimating radiation doses from surface water concentrations of radionuclides.

### *C.1.3 Source Terms*

Source terms for constituents of concern in soils were the same as those used for the human health risk assessment, described in Appendix B. The maximum estimated concentration at time zero was used throughout. For a number of chemicals, data were provided for a compound where only one element in the compound was of concern for possible adverse effects. For example, the element of concern in sodium dichromate is chromium. In these cases, the concentration of the specific element was computed based on the atomic weights of the elements making up the compound. Chemical concentrations used to estimate HIs are listed in Table C-1 and radionuclide concentrations used to estimate radiation doses are listed in Table C-2. Volume-based concentrations were converted to weight-based concentrations (mg/kg for chemicals, pCi/g for radionuclides), assuming a soil density of 1.76 g/cm$^3$.

### *C.1.4 Exposure Assessment*

This section describes the general methods used to estimate intake of hazardous chemicals, the associated HIs, and radiation doses resulting from radionuclide intake. The section describes the equations typically presented in the risk assessment literature and then describes modifications used to calculate unit risk factors (URF) in order to simplify computation. This approach is detailed in Appendix B regarding human health risk assessment. Application of the URFs to ecological receptors results in an estimated radiation dose or chemical HI rather than a probability of some adverse effect as in the human health risk assessment. However, the term URF is maintained here for purposes of consistency with the similar methodology used for the human health risk assessment.

***C.1.4.1 Estimation of Hazardous Chemical Intake.*** Contaminant uptake by a generic plant was estimated by multiplying the soil concentration by the soil-to-plant concentration factors used in the GENII model at the Hanford Site. The equation used was:

$$C_{vi} = (C_{si})(B_{vi})(0.4) \qquad (1)$$

where:

$C_{vi}$ = contaminant concentration in plant, mg/kg wet weight
$C_{si}$ = contaminant concentration in soil, mg/kg dry weight
$B_{vi}$ = soil-to-plant concentration factor (unitless) (The factor for grain concentration was used, rather than for vegetative portions, as the pocket mouse was assumed to consume seeds.)
0.4 = wet weight/dry weight conversion (DOE-RL 1994).

The intake rate of hazardous chemicals by an herbivore via consumption of plants was calculated using the following equation:

$$I_i = (C_{vi})(IR)(FI)/(BW) \quad (2)$$

where:

$I_i$ = intake rate of the $i_{th}$ contaminant, mg/kg/day
$C_{vi}$ = contaminant concentration in plant, mg/kg
IR = ingestion rate of food, kg/day wet weight
FI = fraction ingested from contaminated source, unitless
BW = body weight, kg wet weight.

Intake rates by carnivores are calculated similarly, substituting the contaminant concentrations in the herbivore for the concentrations in plants. Contaminant concentrations in herbivore muscle are estimated using Equation 3.

$$C_{mi} = (C_{vi})(IR)(FI)(B_{mi}) \quad (3)$$

where:

$C_{mi}$ = contaminant concentration in muscle, mg/kg wet weight
$C_{vi}$ = contaminant concentration in plant, mg/kg wet weight
IR = ingestion rate of plants by herbivore, kg/day
FI = fraction ingested from a contaminated source, unitless
$B_{mi}$ = plant-to-muscle transfer factor, day/kg (Plant-to-beef transfer factors used in the GENII model at the Hanford Site were used where available or from Baes et al. (1984) where not. The transfer factors used to calculate URFs for chemicals are identified in Table C-3.

Ingestion rates and body weights used in calculating URFs for this EIS are listed in Table C-4.

*C.1.4.2 Calculation of Hazard Indices*. Hazard indices, the ratio of estimated intake rate to that expected to have no adverse effect, are calculated by dividing the intake rate by the NOAEL as shown in Equation 4.

$$HI = I/NOAEL \quad (4)$$

where I is calculated as described above (Equation 2). NOAELs for contaminants of concern were obtained from the scientific literature and scaled to the body weight of the receptor as described below. Both factors are expressed as mg/kg body weight per day.

An HI greater than 1.0 for a given chemical indicates that estimated intake exceeds the threshold "safe" level. For sites with multiple chemicals present, the HIs may be summed, making the

conservative assumption that the modes of action and target organs of the chemicals are similar. Thus a site may be said to present a hazard if the sum of HIs exceeds 1.0, even if the individual chemical HIs are less than 1.0. This approach was modified to allow calculation of HIs directly from soil concentrations, without the necessity of separate calculations of plant uptake from soil, plant consumption by the mouse, and so forth, for each site location.

NOAELs were obtained, in order of preference, from Opresko et al. (1993) or the U.S. Department of Energy (DOE-RL 1994). Wildlife NOAELs obtained from Opresko et al. (1993) were scaled to the body weight of the pocket mouse or coyote using the equation:

$$NOAEL_y = (NOAEL_x)[(bw_x)/(bw_y)]^{1/3} \quad (5)$$

where:

$NOAEL_y$ = NOAEL for the organism of interest
$NOAEL_x$ = NOAEL for experimental animal available from the literature
$bw_y$ = body weight of the organism of interest
$bw_x$ = body weight of experimental animal with the known NOAEL.

Wildlife NOAELs obtained from DOE-RL (1994) were used directly as listed, without attempting to scale them to body weight. Red-tailed hawk NOAELs were taken directly from the values for this species in Opresko et al. (1993) or as the avian NOAELs from DOE-RL (1994). In some cases NOAELs in Opresko et al. (1993) were reported for compounds where a specific element in the compound was the one of primary concern for adverse effects. In these cases, a NOAEL for the specific element was computed based on the atomic weights of the elements comprising the compound. This procedure was directly analogous to that used to estimate element-specific contaminant concentration, as described in Section C.1.3. Scaling factors used to adjust NOAELs obtained from Opresko et al. (1993) are listed in Table C-5, and NOAELs and data sources are listed in Table C-6. NOAELs for plants were obtained as soil concentrations from Suter et al. (1993), and HIs were calculated as the waste unit soil concentration divided by the NOAEL. It was, therefore, not necessary to calculate URFs for plants.

*C.1.4.3 Calculation of Unit Risk Factors for Chemicals*. Unit risk factors were calculated to allow computation of the HI for any specified contaminant and receptor directly from the soil concentration.

*C.1.4.3.1 Pocket Mouse Unit Risk Factors*. Expanding equation (4) for estimation of the HI for the pocket mouse consuming the $i_{th}$ chemical,

$$HI_i = I_i/NOAEL_i \quad (6)$$

$$= [(C_{vi})(IR)(FI)/(BW)]/NOAEL; \text{ expanding } C_{vi},$$

$$= [(C_{si})(B_{vi})(0.4)(IR)(FI)/(BW)]/NOAEL$$

The URF was defined as

$$URF_i = NOAEL_i/[(B_{vi})(0.4)(IR)(FI)/(BW)] \quad (7)$$

such that

$$HI_i = C_{si}/URF_i. \quad (8)$$

The fraction ingested (FI) was assumed to be 1.0 for all calculations for the pocket mouse, coyote, and hawk. This simplifies Equation (7), substituting in the ingestion rate and body weight for the pocket mouse (Table C-4) to:

$$URF_i = NOAEL_i/[(B_{vi})(0.4)(0.0067\ kg/d)(1.0)/(0.0235\ kg)] \quad (9)$$

$$= NOAEL_i/[(B_{vi})(0.4)(0.2851/d)].$$

*C.1.4.3.2 Coyote and Red-Tailed Hawk Unit Risk Factors.* An analogous process was used to calculate URFs for the coyote and red-tailed hawk. Calculation of factors for these receptors required calculating the chemical concentration in mouse muscle, $C_{mi}$, as an input variable. The analogous series of equations are shown in Equations 10-14.

$$HI_i = I_i/NOAEL_i \quad (10)$$

$$= [(C_{mi})(IR)(FI)/(BW)]/NOAEL;\ \text{expanding } C_{mi} \text{ (see equation 3)},$$

$$HI_i = [(C_{vi})(IR_{mouse})(B_{mi})(IR_{coyote})/(BW_{coyote})]/NOAEL;\ \text{expanding } C_{vi},$$

$$HI_i = [(C_{si})(B_{vi})(0.4)(IR_{mouse})(B_{mi})(IR_{coyote})/(BW_{coyote})]/NOAEL.$$

As above, the URF was defined as:

$$URF_i = NOAEL_i/[(B_{vi})(0.4)(IR_{mouse})(B_{mi})(IR_{coyote})/(BW_{coyote})] \quad (11)$$

such that

$$HI_i = C_{si}/URF_i. \quad (12)$$

Incorporating the ingestion rate for the pocket mouse and the ingestion rate and body weight for the coyote (Table C-4):

$$URF_i = NOAEL_i/[(B_{vi})(0.4)(0.0067\ kg/d)(B_{mi})(1.3\ kg/d)/(10\ kg)] \quad (13)$$

$$= NOAEL_i/[(B_{vi})(0.4)(B_{mi})(0.000871/d)].$$

The calculation for the hawk is similar, substituting the ingestion and body weights of 1.1 kg/d and 1.0 kg, respectively, into Equation (13),

$$URF_i = NOAEL_i/[(B_{vi})(0.4)(B_{mi})(0.00737/d)]. \quad (14)$$

The resulting URFs used to calculate HIs for the pocket mouse, coyote, and red-tailed hawk are listed in Table C-7.

*C.1.4.4 Estimation of Radiation Doses to Ecological Receptors.* Radiation doses to ecological receptors were calculated using URFs analogous to those discussed above for chemicals. The basic equation used was:

$$\text{Dose (rad/day)} = (5.11 \times 10^{-5})(\text{MeV})(C) \quad (15)$$

where:

| | | |
|---|---|---|
| $5.11 \times 10^{-5}$ | = | Constant, rad $d^{-1}$ $pCi^{-1}$ g $MeV^{-1}$ disintegration |
| MeV | = | Mean energy of decay, MeV per disintegration |
| C | = | Radionuclide concentration in organism, pCi/g dry weight. |

The constant was derived as follows:

$$5.11 \times 10^{-5} = (A)(B)(C)(D)(E)(F)(G)$$

where:

A = 1 Ci/$10^{12}$ pCi
B = 3.7 x $10^{10}$ disintegrations/Ci-sec
C = 3,600 sec/hr
D = 24 hr/d
E = $10^6$ eV/MeV
F = 1.6 x $10^{-12}$ erg/eV
G = 1 rad-g/100 ergs.

*C.1.4.4.1 Derivation of Unit Risk Factors for Radiation Doses to Plants.* Equation (15) written for a generic plant is:

$$D_{Pr}\ (\text{rad/d}) = (5.11 \times 10^{-5})(MeV_{Pr})(C_{Pr}) \tag{16}$$

where:

$MeV_{Pr}$ = average effective energy of decay of radionuclide r in the plant
$C_{Pr}$ = concentration of radionuclide r in plant, pCi/g = $(C_{sr})(B_{vr})$, where
$C_{sr}$ = concentration of radionuclide r in soil, pCi/g
$B_{vr}$ = soil-to-plant concentration factor (unitless) for radionuclide r.

Expanding Equation (16) to express radiation dose as a function of soil concentration,

$$D_{Pr}\ (\text{rad/d}) = (5.11 \times 10^{-5})(MeV_{Pr})(C_{sr})(B_{vi}). \tag{17}$$

The URF ($K_{Pr}$, to avoid confusion with the chemical URFs) for calculating the radiation dose to a plant due to uptake from soil is:

$$K_{Pr} = (5.11 \times 10^{-5})(MeV_{Pr})(B_{vi}). \tag{18}$$

The dose Equation (17) is simplified to:

$$D_{Pr}\ (\text{rad/d}) = (C_{sr})(K_{Pr}). \tag{19}$$

*C.1.4.4.2 Derivation of Unit Risk Factors for Radiation Doses to the Pocket Mouse.* The derivation of the URF for radiation dose to the pocket mouse is analogous to the derivation of URFs for the chemical HI for the mouse and the radiation dose to the plant. Following Equation (16), the estimated dose is:

$$D_{Mr}\ (\text{rad/d}) = (5.11 \times 10^{-5})(MeV_{Mr})(C_{Mr}), \tag{20}$$

where the terms are defined in the same manner as for the plant (Section C.1.4.4.1) and $C_{Mr}$, the radionuclide concentration in the mouse, is calculated using Equation (3), but expressing the soil concentration in pCi/g and multiplying the right side of the equation by 0.001 kg/g to adjust for the difference in units (chemical concentrations are expressed in mg/kg), yielding Equation 21.

$$C_{Mr} = (C_{Pr})(IR)(FI)(B_{mr})(0.4)(0.001) \tag{21}$$

where:

| | | |
|---|---|---|
| $C_{Mr}$ | = | contaminant concentration in mouse, pCi/g wet weight |
| $C_{Pr}$ | = | contaminant concentration in plant, pCi/g dry weight |
| IR | = | ingestion rate of plants by herbivore, g/day |
| FI | = | fraction ingested from a contaminated source, unitless, = 1.0 |
| $B_{mr}$ | = | plant-to-muscle transfer factor, day/kg (Plant-to-beef transfer factors used in the GENII model at the Hanford Site were used where available or from Baes et al. [1984] where not) |
| 0.4 | = | wet weight/dry weight conversion (DOE-RL 1994) |
| 0.001 | = | kg/g, conversion factor for plant-to-beef transfer factors, which have units of days/kg. |

Expanding Equation 20,

$$D_{Mr} = (C_{Pr})(IR_M)(FI_M)(B_{Mr})(5.11 \times 10^{-5})(MeV_{Mr}), \tag{22}$$

and expanding $C_{Pr}$ using equation (1),

$$D_{Mr} = (C_{sr})(B_{vr})(0.4)(IR_M)(FI_M)(B_{Mr})(5.11 \times 10^{-5})(MeV_{Mr}). \tag{23}$$

Following the reasoning in Equations (17) through (19), the URF $K_{Mr}$ for calculating the radiation dose to a mouse due to consumption of plants growing in contaminated soil is:

$$K_{Mr} = (5.11 \times 10^{-5})(MeV_{Mr})(B_{vr})(0.4)(IR_M)(FI_M)(B_{Mr}). \tag{24}$$

The dose equation is simplified to:

$$D_{Mr}\ (rad/d) = (C_{sr})(K_{Mr}). \tag{25}$$

As with chemicals, FI was assumed to be 1.0 for the mouse, coyote, and hawk.

*C.1.4.4.3 Derivation of Unit Risk Factors for Radiation Doses to the Coyote and Hawk.* The derivation of risk factors for the coyote and hawk was analogous to derivation of risk factor for radiation dose for the mouse and the chemical HI for the coyote. The concentration of radionuclides in the coyote was calculated as:

$$C_{Cr} = (C_{Mr})(IR)(FI)(B_{mmr}) \tag{26}$$

where:

$C_{Cr}$ = radionuclide concentration in coyote, pCi/g wet weight
$C_{Mr}$ = contaminant concentration in mouse, pCi/g wet weight, calculated in equation (21)
IR = ingestion rate of mice by coyote, kg/day
FI = fraction ingested from a contaminated source, unitless
$B_{mmr}$ = muscle-to-muscle transfer factor, assumed to be 1.0.

The resulting equation for radiation dose, expanding Equation (21) is:

$$D_{Cr} = (C_{sr})(B_{vr})(0.4)(IR_M)(B_{Mr})(5.11 \times 10^{-5})(MeV_{Cr})(IR_C) \tag{27}$$

The URF $K_C$ is:

$$K_C = (B_{vr})(0.4)(IR_M)(B_{Mr})(5.11 \times 10^{-5})(MeV_{Cr})(IR_C). \tag{28}$$

The URF for the hawk was calculated using the same equation, substituting $MeV_{Hr}$ and $IR_H$ for $MeV_{Cr}$ and $IR_C$, respectively.

Unit risk factors for radiation dose calculated in this manner are listed in Table C-8. The soil-to-plant transfer factors used in the GENII model for the Hanford Site were used in the analysis. Organism-specific MeVs were obtained from Baker and Soldat (1992), assuming radii of 1.4, 2, 30, and 5 cm (0.6, 0.8, 12, and 2 in.) for the generic plant, pocket mouse, coyote, and red-tailed hawk respectively.

*C.1.4.4.4 Estimation of Radiation Dose to Aquatic Receptors.* Mean and maximum radiation doses to aquatic receptors were estimated for a generic aquatic plant, invertebrate, fish, and the muskrat using the constants provided by Killough and McKay (1976) and the same source terms used in the human health risk assessment. Concentrations used in the analysis are listed in Tables C-9 and C-10.

## *C.2 Results*

Estimated HIs and radiation doses to ecological receptors are presented in Tables C-11 through C-22. Results are presented for each of the four geographic areas and for each grid cell within the geographic areas. Division of the Hanford Site into grid cells for purposes of risk assessment is

discussed in Appendix B. The results are presented for each individual chemical or radionuclide by cell within each geographic area. A second table then provides the results summed by cell for all chemicals or radionuclides within the cell, that is, the total HI or radiation dose resulting from contaminants within that grid cell. Table C-23 presents the estimated radiation doses to aquatic receptors. This appendix does not assess the significance of the calculations.

## *C.3 Uncertainties*

A quantitative uncertainty analysis was not undertaken because of the level of effort that would be required to assess and present the analysis for each grid cell on the Site. The primary contributor to uncertainty in calculating both the HIs and radiation doses is probably the source data, as described in Appendix B. Additional source data could either increase or decrease the estimated hazards; the maximum chemical and radionuclide concentrations were used for all analyses so that the estimate would represent an upper bound value. Secondary contributors to uncertainty are considered to be the conceptual model and the transfer factors used to estimate plant uptake and assimilation in the mouse. The conceptual model does not include potential dose contributions from water ingestion, inhalation, or direct radiation exposure. Inclusion of these pathways would increase the estimated radiation doses and chemical hazard indexes. The model also assumes that organisms obtain all food from contaminated sources. Accounting for home range size relative to grid cell size would decrease the estimated risks for the coyote and hawk, which range over a larger area than the 1 $km^2$ (0.39 $mi^2$) grid cell area. Additional data on transfer factors could either increase or decrease the estimated hazards; again, use of the maximum concentrations, essentially assuming direct uptake from the waste, was intended to ensure that the hazard estimates are an upper bound. Additional secondary contributors to uncertainty are the NOAELs for hazardous chemicals and the assumption that radionuclides have infinite half-lives in the environment and are perfectly assimilated by the hawk and coyote. Although NOAEL estimates could be too high (making the HI too low), additional data (or calculations accounting for radiological decay) in either of these areas would probably reduce the estimates of hazard. Data regarding body weight and ingestion rates are considered to be minor contributors to uncertainty, because estimates of these parameters are better than estimates of the other variables. The assumption that the FI equals 1.0 is a contributor to the conservatism of the hazard estimates rather than a source of uncertainty. Reduction of this value for a given receptor would proportionally reduce the HI or radiation dose.

*Table C-1. Chemical Concentrations Used as Input to Hazard Index Calculations. (4 sheets)*

| Area | Cell ID | Casid | Chemical (Time 0) | Soil (g/cm3) | Chemical Name | | Concentration (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| All Other Areas | 591122 | 108101 | MIBK | 3.72E-02 | MIBK | | 2.11E+04 | |
| | 591122 | 7440611 | U | 2.48E-02 | U | | 1.41E+04 | |
| | 591122 | 14797558 | NO3 | 1.24E-02 | NO3 | | 7.05E+03 | |
| | 594115 | 7439921 | PbII | 5.62E-05 | PbII | | 3.19E+01 | |
| | 594115 | 7439976 | Hg | 9.36E-07 | Hg | | 5.32E-01 | |
| | 594115 | 7440020 | NiII | 2.81E-04 | NiII | | 1.60E+02 | |
| | 594115 | 7440224 | AgI | 2.81E-05 | Ag | I | 7.34E+00 | 8.62E+00 |
| | 594115 | 7440417 | Be | 9.36E-07 | Be | | 5.32E-01 | |
| | 594115 | 7440439 | CdII | 1.87E-06 | CdII | | 1.06E+00 | |
| | 594115 | 7440473 | CrVI | 9.36E-05 | CrVI | | 5.32E+01 | |
| | 594115 | 7440508 | CuII | 1.87E-03 | CuII | | 1.06E+03 | |
| | 594115 | 7440611 | U | 9.36E-04 | U | | 5.32E+02 | |
| | 594115 | 7646857 | ZnII | 9.36E-05 | ZnII | | 5.32E+01 | |
| | 594115 | 7782414 | F | 1.87E-04 | F | | 1.06E+02 | |
| Central Plateau | 565133 | 14797558 | NO3 | 5.00E-06 | NO3 | | 2.84E+00 | |
| | 566133 | 14797558 | NO3 | 1.08E-05 | NO3 | | 6.12E+00 | |
| | 566134 | 1302427 | NaAl | 8.33E-05 | Na | Al | 2.09E+01 | 2.46E+01 |
| | 566134 | 1310732 | NaOH | 5.56E-05 | Na | OH | 1.82E+01 | 1.34E+01 |
| | 566134 | 6484522 | NH4NO3 | 7.27E-04 | NH4 | NO3 | 9.30E+01 | 3.20E+02 |
| | 566134 | 7647145 | Na | 5.88E-03 | Na | | 3.34E+03 | |
| | 566134 | 7697372 | HNO3 | 5.88E-02 | NO3 | | 3.28E+04 | |
| | 566134 | 10588019 | NaCr2 | 5.56E-05 | CrVI | | 1.10E+01 | |
| | 566134 | 13473900 | AlNO3 | 3.53E-02 | Al | NO3 | 2.55E+03 | 1.75E+04 |
| | 566134 | 14797558 | NO3 | 3.53E-02 | NO3 | | 2.01E+04 | |
| | 566135 | | AlFNO3 | 4.12E-02 | Al | F | 5.85E+03 | 4.12E+03 |
| | 566135 | 56235 | CCl4 | 4.56E-02 | CCl4 | | 2.59E+04 | |
| | 566135 | 126738 | TBP | 3.86E-03 | TBP | | 2.19E+03 | |
| | 566135 | 1310732 | NaOH | 1.72E-02 | Na | OH | 5.63E+03 | 4.16E+03 |
| | 566135 | 1809194 | DBBP | 2.63E-03 | DBBP | | 1.50E+03 | |
| | 566135 | 6484522 | NH4NO3 | 4.00E-03 | NH4 | NO3 | 5.11E+02 | 1.76E+03 |
| | 566135 | 7601549 | PO4 | 1.33E-02 | PO4 | | 7.58E+03 | |
| | 566135 | 7647145 | Na | 4.76E-01 | Na | | 2.71E+05 | |
| | 566135 | 7697372 | HNO3 | 7.65E-03 | NO3 | | 4.26E+03 | |
| | 566135 | 7782414 | F | 1.07E-01 | F | | 6.06E+04 | |
| | 566135 | 10124375 | CaNO3 | 2.55E-02 | Ca | NO3 | 5.69E+03 | 8.79E+03 |
| | 566135 | 10377603 | MgNO3 | 3.53E-02 | Mg | NO3 | 3.29E+03 | 1.68E+04 |
| | 566135 | 12808798 | SO4 | 2.00E-03 | SO4 | | 1.14E+03 | |
| | 566135 | 13473900 | AlNO3 | 3.73E-02 | Al | NO3 | 2.69E+03 | 1.85E+04 |
| | 566135 | 13520688 | FeNO3 | 7.84E-03 | Fe | NO3 | 1.03E+03 | 3.43E+03 |
| | 566135 | 14797558 | NO3 | 5.88E-01 | NO3 | | 3.34E+05 | |

*Table C-1. Chemical Concentrations Used as Input to Hazard Index Calculations. (4 sheets)*

| Area | Cell ID | Casid | Chemical (Time 0) | Soil (g/cm3) | Chemical Name | | Concentration (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| Central Plateau (continued) | 566136 | | NaSi | 5.62E-01 | NaSi | | 3.19E+05 | |
| | 566136 | 62760 | NaOxal | 8.70E-02 | Na | | 1.69E+04 | |
| | 566136 | 1302427 | NaAl | 1.46E+00 | Na | Al | 3.67E+05 | 4.31E+05 |
| | 566136 | 1310732 | NaOH | 1.35E+00 | Na | OH | 4.41E+05 | 3.26E+05 |
| | 566136 | 6484522 | NH4NO3 | 4.55E-01 | NH4 | NO3 | 5.81E+04 | 2.00E+05 |
| | 566136 | 7447407 | K | 5.56E-02 | K | | 3.16E+04 | |
| | 566136 | 7601549 | PO4 | 3.26E+00 | PO4 | | 1.85E+06 | |
| | 566136 | 7647145 | Na | 1.01E+01 | Na | | 5.75E+06 | |
| | 566136 | 7782414 | F | 4.49E-01 | F | | 2.55E+05 | |
| | 566136 | 12808798 | SO4 | 6.74E-01 | SO4 | | 3.83E+05 | |
| | 566136 | 13943583 | FeCN | 1.30E-02 | Fe | CN | 3.10E+03 | 4.31E+03 |
| | 566136 | 14797558 | NO3 | 1.35E+01 | NO3 | | 7.66E+06 | |
| | 566136 | Nitrite | NO2 | 1.57E+00 | NO2 | | 8.94E+05 | |
| | 567133 | 7647145 | Na | 1.76E-02 | Na | | 1.00E+04 | |
| | 567133 | 14797558 | NO3 | 4.12E-02 | NO3 | | 2.34E+04 | |
| | 567134 | 108101 | MIBK | 1.30E-02 | MIBK | | 7.38E+03 | |
| | 567134 | 6484522 | NH4NO3 | 9.09E-03 | NH4 | NO3 | 1.16E+03 | 4.00E+03 |
| | 567134 | 7647145 | Na | 6.36E-03 | Na | | 3.62E+03 | |
| | 567134 | 7697372 | HNO3 | 2.27E-01 | NO3 | | 1.27E+05 | |
| | 567134 | 10588019 | NaCr2 | 1.30E-02 | CrVI | | 2.58E+03 | |
| | 567134 | 13473900 | AlNO3 | 3.64E-02 | Al | NO3 | 2.62E+03 | 1.80E+04 |
| | 567134 | 14797558 | NO3 | 1.00E-01 | NO3 | | 5.68E+04 | |
| | 567135 | 126738 | NPH | 7.41E-01 | NPH | | 4.21E+05 | |
| | 567135 | 7601549 | TBP | 2.41E-01 | TBP | | 1.37E+05 | |
| | 567135 | | PO4 | 3.18E-01 | PO4 | | 1.81E+05 | |
| | 567135 | 7647145 | Na | 2.27E+00 | Na | | 1.29E+06 | |
| | 567135 | 12808798 | SO4 | 4.55E-01 | SO4 | | 2.58E+05 | |
| | 567135 | 14797558 | NO3 | 5.45E+00 | NO3 | | 3.10E+06 | |
| | 567136 | 62760 | NaOxal | 3.10E+00 | Na | | 6.05E+05 | |
| | 567136 | 1310732 | NaOH | 1.64E-04 | Na | OH | 5.36E+01 | 3.96E+01 |
| | 567136 | 6484522 | NH4NO3 | 1.38E+00 | NH4 | NO3 | 1.76E+05 | 6.07E+05 |
| | 567136 | 7447407 | K | 2.07E+01 | K | | 1.18E+07 | |
| | 567136 | 7601549 | PO4 | 7.24E+00 | PO4 | | 4.11E+06 | |
| | 567136 | 7647145 | Na | 8.62E+01 | Na | | 4.90E+07 | |
| | 567136 | 7664939 | H2SO4 | 4.55E-03 | H2SO4 | | 2.58E+03 | |
| | 567136 | 7697372 | HNO3 | 4.55E-03 | NO3 | | 2.53E+03 | |
| | 567136 | 7782414 | F | 1.38E+01 | F | | 7.84E+06 | |
| | 567136 | 10588019 | NaCr2 | 4.55E-05 | CrVI | | 9.01E+00 | |
| | 567136 | 12808798 | SO4 | 8.28E-01 | SO4 | | 4.70E+05 | |
| | 567136 | 14797558 | NO3 | 1.00E+02 | NO3 | | 5.68E+07 | |

*Table C-1. Chemical Concentrations Used as Input to Hazard Index Calculations. (4 sheets)*

| Area | Cell ID | Casid | Chemical (Time 0) | Soil (g/cm3) | Chemical Name | | Concentration (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| Central Plateau (continued) | 567137 | 14797558 | NO3 | 8.33E-04 | NO3 | | 4.73E+02 | |
| | 573134 | 62760 | NaOxal | 5.26E-03 | Na | | 1.03E+03 | |
| | 573134 | 7601549 | PO4 | 4.21E-01 | PO4 | | 2.39E+05 | |
| | 573134 | 7647145 | Na | 4.53E+00 | Na | | 2.57E+06 | |
| | 573134 | 12808798 | SO4 | 4.74E-01 | SO4 | | 2.69E+05 | |
| | 573134 | 13943583 | FeCN | 2.63E-02 | Fe | CN | 6.25E+03 | 8.70E+03 |
| | 573134 | 14797558 | NO3 | 1.11E+01 | NO3 | | 6.28E+06 | |
| | 573136 | 144627 | Oxalate | 7.50E-02 | Oxalate | | 4.26E+04 | |
| | 573136 | 6484522 | NH4NO3 | 6.00E-01 | NH4 | NO3 | 7.67E+04 | 2.64E+05 |
| | 573136 | 7447407 | K | 5.00E-01 | K | | 2.84E+05 | |
| | 573136 | 7601549 | PO4 | 1.81E-01 | PO4 | | 1.03E+05 | |
| | 573136 | 7647145 | Na | 2.19E+00 | Na | | 1.24E+06 | |
| | 573136 | 7697372 | HNO3 | 2.22E-02 | NO3 | | 1.24E+04 | |
| | 573136 | 7782414 | F | 3.13E-01 | F | | 1.78E+05 | |
| | 573136 | 10588019 | NaCr2 | 2.22E-03 | CrVI | | 4.41E+02 | |
| | 573136 | 12808798 | SO4 | 2.22E-02 | SO4 | | 1.26E+04 | |
| | 573136 | 13473900 | AlNO3 | 3.13E-02 | Al | NO3 | 2.25E+03 | 1.55E+04 |
| | 573136 | 14797558 | NO3 | 2.50E+00 | NO3 | | 1.42E+06 | |
| | 573137 | 144627 | NaSi | 8.33E-01 | NaSi | | 4.73E+05 | |
| | 573137 | | Oxalate | 1.40E-01 | Oxalate | | 7.93E+04 | |
| | 573137 | 506876 | NH4CO3 | 1.98E-02 | NH4 | CO3 | 2.60E+03 | 8.19E+03 |
| | 573137 | 1302427 | NaAl | 2.08E+00 | Na | Al | 5.23E+05 | 6.14E+05 |
| | 573137 | 1310732 | NaOH | 3.17E-01 | Na | OH | 1.03E+05 | 7.65E+04 |
| | 573137 | 6484522 | NH4NO3 | 5.12E-02 | NH4 | NO3 | 6.54E+03 | 2.25E+04 |
| | 573137 | 7447407 | K | 9.30E-01 | K | | 5.29E+05 | |
| | 573137 | 7601549 | PO4 | 3.33E+00 | PO4 | | 1.89E+06 | |
| | 573137 | 7647145 | Na | 1.08E+01 | Na | | 6.16E+06 | |
| | 573137 | 7664939 | H2SO4 | 3.11E-01 | H2SO4 | | 1.77E+05 | |
| | 573137 | 7782414 | F | 5.58E-01 | F | | 3.17E+05 | |
| | 573137 | 12808798 | SO4 | 7.50E-01 | SO4 | | 4.26E+05 | |
| | 573137 | 13943583 | FeCN | 9.52E-03 | Fe | CN | 2.26E+03 | 3.15E+03 |
| | 573137 | 14797558 | NO3 | 1.42E+01 | NO3 | | 8.05E+06 | |
| | 573137 | Nitrite | NO2 | 1.67E+00 | NO2 | | 9.47E+05 | |
| | 574136 | 78466 | NPH | 2.79E-01 | NPH | | 1.59E+05 | |
| | 574136 | | TBPPH | 1.63E-01 | TBPPH | | 9.25E+04 | |
| | 574136 | 7647145 | Na | 3.49E-02 | Na | | 1.98E+04 | |
| | 574136 | 7697372 | HNO3 | 1.00E-01 | NO3 | | 5.57E+04 | |
| | 574136 | 14797558 | NO3 | 9.30E-02 | NO3 | | 5.29E+04 | |
| | 575135 | 126738 | NPH | 5.71E-01 | NPH | | 3.25E+05 | |
| | 575135 | | TBP | 3.33E-01 | TBP | | 1.89E+05 | |

*Table C-1. Chemical Concentrations Used as Input to Hazard Index Calculations. (4 sheets)*

| Area | Cell ID | Casid | Chemical (Time 0) | Soil (g/cm3) | Chemical Name | | Concentration (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| Central Plateau (continued) | 575135 | 6484522 | NH4NO3 | 2.86E-01 | NH4 | NO3 | 3.65E+04 | 1.26E+05 |
| | 575135 | 7647145 | Na | 1.90E-02 | Na | | 1.08E+04 | |
| | 575135 | 10588019 | NaCr2 | 5.24E-04 | CrVI | | 1.04E+02 | |
| | 575135 | 12808798 | SO4 | 2.38E-02 | SO4 | | 1.35E+04 | |
| | 575135 | 14797558 | NO3 | 1.45E+00 | NO3 | | 8.23E+05 | |
| | 575136 | | NPH | 1.29E+00 | NPH | | 7.31E+05 | |
| | 575136 | 50328 | BP | 1.97E-02 | BP | | 1.12E+04 | |
| | 575136 | 126738 | TBP | 7.14E-01 | TBP | | 4.06E+05 | |
| | 575136 | 506876 | NH4CO3 | 4.85E-02 | NH4 | CO3 | 6.36E+03 | 2.01E+04 |
| | 575136 | 14797558 | NO3 | 3.03E-01 | NO3 | | 1.72E+05 | |
| Reactors on River | 565144 | 62760 | NaOxal | 3.86E-02 | Na | | 7.52E+03 | |
| | 565144 | 5329146 | NaSulfam | 2.32E-01 | Na | | 2.54E+04 | |
| | 565144 | 10588019 | NaCr2 | 3.86E-02 | CrVI | | 7.65E+03 | |
| | 565145 | 10588019 | NaCr2 | 1.02E-05 | CrVI | | 2.03E+00 | |
| | 569146 | 1310732 | NaOH | 3.20E-01 | Na | OH | 1.04E+05 | 7.72E+04 |
| | 569146 | 7439976 | Hg | 1.43E-02 | Hg | | 8.10E+03 | |
| | 569147 | 7664939 | H2SO4 | 1.49E-04 | H2SO4 | | 8.49E+01 | |
| | 569147 | 7664939 | SulfAcid | 1.49E-04 | SO4 | | 8.49E+01 | |
| | 569147 | 7758987 | Cu2SO4 | 7.47E-06 | CuI | | 1.69E+00 | |
| | 569147 | 10588019 | NaCr2 | 4.48E-03 | CrVI | | 8.89E+02 | |
| | 573151 | 62760 | NaOxal | 2.23E-03 | Na | | 4.35E+02 | |
| | 573151 | 5329146 | NaSulfam | 2.23E-03 | Na | | 2.45E+02 | |
| | 573151 | 7632044 | KBO2 | 9.42E-02 | K | B | 2.55E+04 | 7.06E+03 |
| | 573151 | 10588019 | NaCr2 | 7.81E-04 | CrVI | | 1.55E+02 | |
| | 573152 | 10588019 | NaCr2 | 1.01E-05 | CrVI | | 2.01E+00 | |
| | 574152 | 10588019 | NaCr2 | 1.95E-05 | CrVI | | 3.86E+00 | |
| | 577152 | 62760 | NaOxal | 1.54E-02 | Na | | 3.00E+03 | |
| | 577152 | 5329146 | NaSulfam | 1.54E-02 | Na | | 1.69E+03 | |
| | 577152 | 10588019 | NaCr2 | 4.68E-02 | CrVI | | 9.28E+03 | |
| | 578152 | 10588019 | NaCr2 | 2.37E-05 | CrVI | | 4.70E+00 | |
| | 580147 | 62760 | NaOxal | 8.56E-02 | Na | | 1.67E+04 | |
| | 580147 | 5329146 | NaSulfam | 8.56E-02 | Na | | 9.39E+03 | |
| | 580147 | 7664939 | SulfAcid | 5.31E-04 | SO4 | | 3.02E+02 | |
| | 580147 | 10588019 | NaCr2 | 8.56E-02 | CrVI | | 1.70E+04 | |
| | 581147 | 10588019 | NaCr2 | 1.42E-05 | CrVI | | 2.81E+00 | |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| All Other Areas | 589127 | Co60 | 1.16E-09 |
| | 590121 | Co60 | 5.72E-10 |
| | 590121 | Pu239 | 3.99E-10 |
| | 590121 | U235 | 3.00E-16 |
| | 590121 | U238 | 3.23E-18 |
| | 592116 | Co60 | 2.47E-15 |
| | 592116 | Th232 | 1.09E-07 |
| | 592116 | U235 | 1.74E-10 |
| | 592116 | U238 | 3.73E-09 |
| | 593116 | Co60 | 2.39E-15 |
| | 593116 | U235 | 3.49E-11 |
| | 593116 | U238 | 7.46E-10 |
| | 594116 | Co60 | 2.11E-09 |
| | 594116 | Cs137 | 5.33E-08 |
| | 594116 | Pu239 | 2.40E-11 |
| Central Plateau | 594116 | Pu240 | 2.21E-12 |
| | 594116 | U235 | 1.25E-13 |
| | 594116 | U238 | 2.70E-12 |
| | 565133 | Co60 | 3.44E-09 |
| | 565133 | Cs137 | 6.98E-10 |
| | 565133 | Pu240 | 5.26E-10 |
| | 565133 | Ru106 | 1.04E-16 |
| | 565133 | Sr90 | 1.05E-09 |
| | 565133 | U235 | 2.44E-11 |
| | 565134 | Cs137 | 8.92E-12 |
| | 565134 | H3 | 6.78E-09 |
| | 565134 | Ru106 | 8.58E-25 |
| | 565134 | Sr90 | 5.49E-12 |
| | 566133 | Am241 | 6.91E-12 |
| | 566133 | Co60 | 1.22E-08 |
| | 566133 | Cs134 | 8.84E-09 |
| | 566133 | Cs137 | 2.03E-09 |
| | 566133 | Pu239 | 9.23E-09 |
| | 566133 | Pu240 | 2.74E-09 |
| | 566133 | Ru106 | 1.57E-10 |
| | 566133 | Sr90 | 1.57E-08 |
| | 566133 | U235 | 6.98E-12 |
| | 566134 | Am241 | 2.59E-09 |
| | 566134 | Co60 | 1.19E-06 |
| | 566134 | Cs134 | 6.46E-07 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Central Plateau (continued) | 566134 | Cs137 | 6.08E-07 |
| | 566134 | H3 | 1.03E-06 |
| | 566134 | Pu239 | 8.68E-06 |
| | 566134 | Pu240 | 2.66E-06 |
| | 566134 | Ru106 | 1.47E-13 |
| | 566134 | Sr90 | 7.35E-07 |
| | 566134 | U235 | 2.33E-07 |
| | 566135 | Am241 | 4.21E-10 |
| | 566135 | Co60 | 1.36E-06 |
| | 566135 | Cs137 | 3.49E-07 |
| | 566135 | H3 | 9.44E-10 |
| | 566135 | Pu238 | 6.37E-12 |
| | 566135 | Pu239 | 6.05E-05 |
| | 566135 | Pu240 | 1.80E-05 |
| | 566135 | Pu241 | 1.05E-09 |
| | 566135 | Ru106 | 4.45E-14 |
| | 566135 | Sr90 | 3.44E-07 |
| | 566135 | U235 | 3.25E-12 |
| | 566136 | Co60 | 8.31E-05 |
| | 566136 | Cs134 | 4.71E-09 |
| | 566136 | Cs137 | 4.34E-05 |
| | 566136 | Pm147 | 5.81E-11 |
| | 566136 | Pu239 | 2.17E-06 |
| | 566136 | Pu240 | 4.26E-07 |
| | 566136 | Ru106 | 8.90E-14 |
| | 566136 | Sr90 | 6.13E-07 |
| | 566136 | Th232 | 1.03E-09 |
| | 566136 | U235 | 3.21E-08 |
| | 566137 | Cs137 | 2.60E-10 |
| | 566137 | Sr90 | 1.40E-10 |
| | 567133 | Co60 | 1.04E-07 |
| | 567133 | Cs137 | 3.77E-08 |
| | 567133 | H3 | 3.74E-11 |
| | 567133 | Pu239 | 2.36E-08 |
| | 567133 | Pu240 | 7.00E-09 |
| | 567133 | Ru106 | 1.66E-16 |
| | 567133 | Sr90 | 1.51E-08 |
| | 567133 | U235 | 1.04E-11 |
| | 567134 | Am241 | 2.93E-12 |
| | 567134 | Co60 | 3.80E-06 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Central Plateau (continued) | 567134 | Cs137 | 6.39E-07 |
| | 567134 | H3 | 8.54E-13 |
| | 567134 | Pu239 | 8.28E-08 |
| | 567134 | Pu240 | 2.45E-08 |
| | 567134 | Ru106 | 1.59E-13 |
| | 567134 | Sr90 | 1.26E-06 |
| | 567134 | U235 | 2.05E-09 |
| | 567134 | U238 | 3.94E-11 |
| | 567135 | Cs134 | 2.89E-07 |
| | 567135 | Sr90 | 9.59E-09 |
| | 567136 | Co60 | 2.70E-06 |
| | 567136 | Cs137 | 1.00E-05 |
| | 567136 | Pu239 | 2.39E-04 |
| | 567136 | Pu240 | 7.10E-05 |
| | 567136 | Sr90 | 8.92E-06 |
| | 567136 | U235 | 1.53E-09 |
| | 567137 | Cs137 | 1.31E-07 |
| | 567137 | Ru106 | 9.98E-15 |
| | 567137 | Sr90 | 1.48E-07 |
| | 569140 | Cs137 | 2.83E-08 |
| | 569140 | Ru106 | 7.83E-20 |
| | 569140 | Sr90 | 5.28E-09 |
| | 570140 | Cs137 | 1.80E-08 |
| | 570140 | Pu239 | 2.21E-11 |
| | 570140 | Ru106 | 6.47E-20 |
| | 570140 | Sr90 | 3.38E-09 |
| | 570140 | U235 | 4.87E-13 |
| | 571140 | Cs137 | 1.80E-08 |
| | 571140 | Pu239 | 8.62E-11 |
| | 571140 | Pu240 | 2.56E-11 |
| | 571140 | Ru106 | 6.47E-20 |
| | 571140 | Sr90 | 3.38E-09 |
| | 571140 | U235 | 6.29E-13 |
| | 573134 | Co60 | 1.31E-05 |
| | 573134 | Cs137 | 5.81E-06 |
| | 573134 | Pu239 | 8.62E-07 |
| | 573134 | Pu240 | 2.56E-07 |
| | 573134 | Ru106 | 1.25E-14 |
| | 573134 | Sr90 | 2.97E-06 |
| | 573134 | U235 | 1.22E-09 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Central Plateau (continued) | 573134 | U238 | 7.26E-10 |
| | 573136 | Am241 | 1.08E-10 |
| | 573136 | Co60 | 6.25E-07 |
| | 573136 | Cs137 | 4.26E-07 |
| | 573136 | H3 | 1.55E-08 |
| | 573136 | Po210 | 2.17E-07 |
| | 573136 | Pu239 | 2.83E-05 |
| | 573136 | Pu240 | 1.64E-06 |
| | 573136 | Re187 | 1.97E-14 |
| | 573136 | Ru106 | 5.17E-12 |
| | 573136 | Sn123M | 4.38E-12 |
| | 573136 | Sr90 | 1.59E-07 |
| | 573136 | U234 | 2.32E-09 |
| | 573136 | U235 | 2.00E-09 |
| | 573136 | U238 | 3.57E-09 |
| | 573137 | Cs134 | 4.40E-09 |
| | 573137 | Cs137 | 1.12E-05 |
| | 573137 | Pu239 | 1.00E-05 |
| | 573137 | Ru106 | 7.34E-15 |
| | 573137 | Sr90 | 6.32E-06 |
| | 573137 | U238 | 1.89E-09 |
| | 574135 | Am241 | 2.34E-11 |
| | 574135 | Co60 | 1.09E-08 |
| | 574135 | Cs137 | 2.44E-09 |
| | 574135 | H3 | 5.61E-07 |
| | 574135 | I129 | 3.24E-12 |
| | 574135 | Pm147 | 9.45E-12 |
| | 574135 | Pu238 | 9.97E-12 |
| | 574135 | Pu239 | 2.30E-09 |
| | 574135 | Pu240 | 8.61E-10 |
| | 574135 | Pu241 | 1.28E-09 |
| | 574135 | Ru106 | 9.35E-12 |
| | 574135 | Sr90 | 2.50E-09 |
| | 574135 | U235 | 2.45E-12 |
| | 574136 | Cs137 | 3.20E-09 |
| | 574136 | Eu154 | 4.24E-16 |
| | 574136 | Pu239 | 5.33E-08 |
| | 574136 | Ru106 | 4.11E-15 |
| | 574136 | Sr90 | 5.16E-04 |
| | 574136 | U235 | 1.19E-05 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Central Plateau (continued) | 574136 | U238 | 6.55E-10 |
| | 574139 | Am241 | 3.52E-15 |
| | 574139 | Cs137 | 7.62E-09 |
| | 574139 | H3 | 1.42E-09 |
| | 574139 | Pm147 | 9.59E-12 |
| | 574139 | Pu239 | 7.74E-10 |
| | 574139 | Ru106 | 1.08E-15 |
| | 574139 | Sr90 | 1.71E-09 |
| | 574139 | U235 | 2.83E-11 |
| | 575135 | Am241 | 2.61E-10 |
| | 575135 | Co60 | 3.30E-05 |
| | 575135 | Cs137 | 7.70E-06 |
| | 575135 | H3 | 8.89E-07 |
| | 575135 | I129 | 1.01E-11 |
| | 575135 | Pm147 | 2.40E-09 |
| | 575135 | Pu239 | 1.51E-07 |
| | 575135 | Pu240 | 4.46E-08 |
| | 575135 | Pu241 | 6.72E-10 |
| | 575135 | Ru106 | 3.81E-09 |
| | 575135 | Sn113 | 1.39E-12 |
| | 575135 | Sr90 | 8.89E-06 |
| | 575135 | U235 | 1.33E-06 |
| | 575136 | Co58 | 1.14E-07 |
| | 575136 | Co60 | 4.72E-10 |
| | 575136 | Cs137 | 7.91E-08 |
| | 575136 | H3 | 5.24E-11 |
| | 575136 | Pu239 | 2.38E-08 |
| | 575136 | Pu240 | 6.48E-11 |
| | 575136 | Ru106 | 7.11E-15 |
| | 575136 | Sr90 | 7.80E-09 |
| | 575136 | U235 | 1.43E-10 |
| | 575136 | U238 | 1.64E-11 |
| | 575137 | Cs137 | 5.70E-12 |
| | 575137 | Sr90 | 5.08E-12 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Reactors on River | 564143 | C14 | 9.48E-12 |
| | 564143 | Co60 | 3.62E-09 |
| | 564143 | Cs137 | 2.07E-11 |
| | 564143 | Eu152 | 2.05E-10 |
| | 564143 | Eu154 | 3.36E-10 |
| | 564143 | H3 | 4.63E-08 |
| | 564143 | Ni63 | 1.42E-09 |
| | 564143 | Sr90 | 2.06E-11 |
| | 565143 | C14 | 7.33E-11 |
| | 565143 | Co60 | 2.81E-09 |
| | 565143 | Cs137 | 2.51E-11 |
| | 565143 | Eu152 | 2.47E-10 |
| | 565143 | Eu154 | 4.05E-10 |
| | 565143 | H3 | 1.45E-10 |
| | 565143 | Ni63 | 1.29E-09 |
| | 565143 | Sr90 | 2.51E-11 |
| | 565144 | Co60 | 1.22E-05 |
| | 565144 | Cs134 | 1.12E-11 |
| | 565144 | Cs137 | 1.23E-08 |
| | 565144 | Eu152 | 6.94E-09 |
| | 565144 | Eu154 | 3.76E-10 |
| | 565144 | Eu155 | 1.98E-09 |
| | 565144 | H3 | 2.81E-05 |
| | 565144 | Ni63 | 3.89E-07 |
| | 565144 | Pu238 | 1.76E-10 |
| | 565144 | Pu239 | 1.75E-10 |
| | 565144 | Pu240 | 1.95E-11 |
| | 565144 | Sr90 | 1.22E-08 |
| | 565144 | U235 | 2.85E-13 |
| | 565144 | U238 | 1.95E-10 |
| | 565145 | C14 | 1.08E-10 |
| | 565145 | Co60 | 1.02E-07 |
| | 565145 | Cs134 | 7.30E-13 |
| | 565145 | Cs137 | 1.35E-09 |
| | 565145 | Eu152 | 2.04E-09 |
| | 565145 | Eu154 | 7.47E-10 |
| | 565145 | Eu155 | 9.00E-10 |
| | 565145 | H3 | 2.92E-11 |
| | 565145 | Pu238 | 5.06E-14 |
| | 565145 | Pu239 | 2.60E-12 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Reactors on River (continued) | 565145 | Pu240 | 2.78E-12 |
| | 565145 | Sr90 | 2.46E-11 |
| | 565145 | U235 | 9.85E-13 |
| | 565145 | U238 | 2.20E-12 |
| | 568146 | C14 | 2.77E-07 |
| | 568146 | Co60 | 1.62E-12 |
| | 568146 | Cs134 | 2.99E-14 |
| | 568146 | Cs137 | 8.79E-12 |
| | 568146 | Eu152 | 1.18E-12 |
| | 568146 | Eu154 | 2.54E-13 |
| | 568146 | Eu155 | 1.44E-12 |
| | 568146 | H3 | 1.74E-07 |
| | 568146 | Sr90 | 1.50E-11 |
| | 568146 | U235 | 2.89E-13 |
| | 569146 | C14 | 2.77E-07 |
| | 569146 | Co60 | 2.17E-08 |
| | 569146 | Cs134 | 3.05E-16 |
| | 569146 | Cs137 | 2.35E-09 |
| | 569146 | Eu152 | 1.96E-10 |
| | 569146 | Eu154 | 4.02E-10 |
| | 569146 | Eu155 | 2.80E-11 |
| | 569146 | H3 | 1.20E-07 |
| | 569146 | Ni63 | 1.85E-09 |
| | 569146 | Pu239 | 5.43E-11 |
| | 569146 | Pu240 | 6.07E-12 |
| | 569146 | Sb125 | 4.91E-11 |
| | 569146 | Sr90 | 6.23E-09 |
| | 569146 | U235 | 6.39E-14 |
| | 569146 | U238 | 6.65E-12 |
| | 569147 | C14 | 1.34E-11 |
| | 569147 | Co60 | 4.93E-10 |
| | 569147 | Cs134 | 3.19E-12 |
| | 569147 | Cs137 | 2.04E-09 |
| | 569147 | Eu152 | 8.91E-09 |
| | 569147 | Eu154 | 2.33E-09 |
| | 569147 | Eu155 | 9.21E-11 |
| | 569147 | H3 | 1.90E-10 |
| | 569147 | Ni63 | 2.05E-09 |
| | 569147 | Pu238 | 2.58E-12 |
| | 569147 | Pu239 | 6.73E-11 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Reactors on River (continued) | 569147 | Pu240 | 7.47E-12 |
| | 569147 | Sr90 | 1.23E-10 |
| | 569147 | U235 | 4.16E-14 |
| | 569147 | U238 | 4.74E-12 |
| | 571149 | Fe59 | 6.69E-21 |
| | 571149 | Zr95 | 6.43E-18 |
| | 571149 | Ce144 | 2.87E-11 |
| | 571149 | Co60 | 5.97E-08 |
| | 571149 | Cs134 | 3.31E-10 |
| | 571149 | Cs137 | 5.78E-08 |
| | 571149 | H3 | 2.38E-08 |
| | 571149 | Mn54 | 6.40E-11 |
| | 571149 | Nb95 | 2.39E-25 |
| | 571149 | Pu239 | 5.00E-10 |
| | 571149 | Ru103 | 1.13E-23 |
| | 571149 | Ru106 | 1.75E-10 |
| | 571149 | Sr90 | 4.51E-08 |
| | 571149 | Tc99 | 9.82E-09 |
| | 572150 | C14 | 7.70E-12 |
| | 572150 | Co60 | 7.02E-10 |
| | 572150 | Cs137 | 1.68E-11 |
| | 572150 | Eu152 | 1.64E-10 |
| | 572150 | Eu154 | 2.52E-10 |
| | 572150 | H3 | 3.46E-11 |
| | 572150 | Ni63 | 1.10E-09 |
| | 572150 | Sr90 | 1.68E-11 |
| | 573150 | Co60 | 4.22E-10 |
| | 573151 | C14 | 1.04E-11 |
| | 573151 | Co60 | 3.24E-08 |
| | 573151 | Cs134 | 9.82E-14 |
| | 573151 | Cs137 | 2.88E-09 |
| | 573151 | Eu152 | 3.01E-10 |
| | 573151 | Eu154 | 3.40E-10 |
| | 573151 | Eu155 | 1.79E-10 |
| | 573151 | H3 | 3.60E-10 |
| | 573151 | Ni63 | 8.31E-10 |
| | 573151 | Pu239 | 9.09E-12 |
| | 573151 | Pu240 | 1.01E-12 |
| | 573151 | Sr90 | 3.83E-09 |
| | 573151 | U235 | 2.23E-14 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Reactors on River (continued) | 573151 | U238 | 2.77E-12 |
| | 573152 | Co60 | 1.67E-10 |
| | 573152 | Cs134 | 1.62E-13 |
| | 573152 | Cs137 | 3.06E-09 |
| | 573152 | Eu152 | 1.12E-09 |
| | 573152 | Eu154 | 1.83E-10 |
| | 573152 | Eu155 | 1.56E-11 |
| | 573152 | H3 | 9.16E-11 |
| | 573152 | Pu238 | 3.73E-15 |
| | 573152 | Pu239 | 7.97E-12 |
| | 574152 | Cs134 | 3.18E-13 |
| | 574152 | Cs137 | 5.90E-09 |
| | 574152 | Eu152 | 2.17E-09 |
| | 574152 | Eu154 | 3.52E-10 |
| | 574152 | Eu155 | 3.00E-11 |
| | 574152 | H3 | 1.76E-10 |
| | 574152 | Pu239 | 1.53E-11 |
| | 574152 | Pu240 | 1.70E-12 |
| | 574152 | Sr90 | 1.35E-10 |
| | 574152 | U235 | 1.17E-13 |
| | 574152 | U238 | 1.32E-11 |
| | 577152 | C14 | 9.57E-12 |
| | 577152 | Co60 | 1.82E-09 |
| | 577152 | Cs134 | 1.18E-15 |
| | 577152 | Cs137 | 2.49E-10 |
| | 577152 | Eu152 | 5.79E-10 |
| | 577152 | Eu154 | 2.81E-10 |
| | 577152 | Eu155 | 6.52E-12 |
| | 577152 | H3 | 4.30E-11 |
| | 577152 | Pu238 | 2.85E-13 |
| | 577152 | Pu239 | 9.79E-12 |
| | 577152 | Pu240 | 5.54E-15 |
| | 577152 | Sr90 | 6.22E-11 |
| | 577152 | U235 | 9.79E-12 |
| | 577152 | U238 | 8.23E-13 |
| | 578152 | C14 | 9.25E-14 |
| | 578152 | Co60 | 1.46E-10 |
| | 578152 | Cs134 | 2.99E-15 |
| | 578152 | Cs137 | 9.18E-10 |
| | 578152 | Eu152 | 2.00E-09 |

*Table C-2. Radionuclide Source Term Concentrations Used to Estimate Radiation Dose. (10 sheets)*

| Area | Cell ID | Radionuclide | Ci/cm3 |
|---|---|---|---|
| Reactors on River (continued) | 578152 | Eu154 | 9.73E-10 |
| | 578152 | Eu155 | 2.28E-11 |
| | 578152 | H3 | 6.61E-12 |
| | 578152 | Pu238 | 2.96E-15 |
| | 578152 | Pu239 | 1.58E-11 |
| | 578152 | Pu240 | 1.76E-12 |
| | 578152 | Sr90 | 1.81E-10 |
| | 578152 | U235 | 3.69E-13 |
| | 578152 | U238 | 4.21E-11 |
| | 579147 | Co60 | 7.56E-10 |
| | 580147 | C14 | 5.54E-11 |
| | 580147 | Co60 | 1.00E-09 |
| | 580147 | Cs134 | 6.00E-12 |
| | 580147 | Cs137 | 1.94E-08 |
| | 580147 | Eu152 | 4.17E-10 |
| | 580147 | Eu154 | 3.54E-10 |
| | 580147 | Eu155 | 2.69E-10 |
| | 580147 | H3 | 1.88E-09 |
| | 580147 | Ni63 | 1.38E-09 |
| | 580147 | Pu238 | 6.92E-12 |
| | 580147 | Pu239 | 5.08E-10 |
| | 580147 | Pu240 | 5.65E-11 |
| | 580147 | Sr90 | 1.30E-08 |
| | 580147 | U235 | 1.35E-13 |
| | 580147 | U238 | 2.14E-11 |
| | 581147 | C14 | 2.00E-13 |
| | 581147 | Co60 | 1.15E-10 |
| | 581147 | Cs134 | 1.94E-14 |
| | 581147 | Cs137 | 1.65E-10 |
| | 581147 | Eu152 | 1.18E-09 |
| | 581147 | Eu154 | 2.60E-10 |
| | 581147 | Eu155 | 2.81E-11 |
| | 581147 | H3 | 7.12E-11 |
| | 581147 | Pu238 | 4.22E-17 |
| | 581147 | Pu239 | 2.15E-11 |
| | 581147 | Pu240 | 2.45E-13 |
| | 581147 | Sr90 | 6.83E-10 |
| | 581147 | U235 | 5.08E-14 |
| | 581147 | U238 | 3.73E-12 |

*Table C-3. Transfer Factors Used to Calculate Unit Risk Factors for Chemicals. (2 sheets)*

| Chemical | Const. 1 | Const. 2 | Transfer Factors | | | |
|---|---|---|---|---|---|---|
| | | | Soil-to-Plant | | Plant-to-beef | |
| | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| AgI | Ag | I | 6.00E-02 | 4.00E-01 | 2.00E-03 | 2.00E-03 |
| AlFNO3 | Al | F | 6.50E-04 | 2.00E-02 | 1.50E-03 | 2.00E-02 |
| AlNO3 | Al | NO3 | 6.50E-04 | NA | 1.50E-03 | NA |
| Be | Be | | 3.30E-03 | NA | 8.00E-04 | NA |
| BP | BP | | NA | NA | NA | NA |
| CaNO3 | Ca | NO3 | 2.00E+00 | NA | 1.60E-03 | NA |
| CCl4 | CCl4 | | NA | NA | NA | NA |
| CdII | CdII | | 6.00E-01 | NA | 4.00E-04 | NA |
| CrVI | CrVI | | 4.00E-03 | NA | 9.00E-03 | NA |
| Cu2SO4 | CuI | | 5.00E-02 | NA | 9.00E-03 | NA |
| CuII | CuII | | 5.00E-02 | NA | 9.00E-03 | NA |
| DBBP | DBBP | | NA | NA | NA | NA |
| F | F | | 2.00E-02 | NA | 2.00E-02 | NA |
| FeCN | Fe | CN | 5.00E-03 | NA | 2.00E-02 | NA |
| FeNO3 | Fe | NO3 | 5.00E-03 | NA | 2.00E-02 | NA |
| H2SO4 | H2SO4 | | NA | NA | NA | NA |
| Hg | Hg | | 1.00E-01 | NA | 1.00E-01 | NA |
| HNO3 | NO3 | | NA | NA | NA | NA |
| K | K | | 3.00E+00 | NA | 1.80E-02 | NA |
| KBO2 | K | B | 3.00E+00 | 4.00E+00 | 1.80E-02 | 2.00E+00 |
| MgNO3 | Mg | NO3 | 9.90E-04 | NA | 1.80E-02 | NA |
| MIBK | MIBK | | NA | NA | NA | NA |
| Na | Na | | 1.00E+01 | NA | 8.00E-02 | NA |
| NaAl | Na | Al | 1.00E+01 | 6.50E-04 | 8.00E-02 | 1.50E-03 |
| NaCr2 | CrVI | | 4.00E-03 | NA | 9.00E-03 | NA |
| NaOH | Na | OH | 1.00E+01 | NA | 8.00E-02 | NA |
| NaOxal | Na | | NA | NA | NA | NA |
| NaSi | NaSi | | NA | NA | NA | NA |
| NaSulfam | Na | | NA | NA | NA | NA |
| NH4CO3 | NH4 | CO3 | NA | NA | NA | NA |
| NH4NO3 | NH4 | NO3 | NA | NA | NA | NA |
| NiII | NiII | | 5.00E-02 | NA | 2.00E-03 | NA |
| NO2 | NO2 | | NA | NA | NA | NA |
| NO3 | NO3 | | NA | NA | NA | NA |
| NPH | NPH | | NA | NA | NA | NA |

*Table C-3. Transfer Factors Used to Calculate Unit Risk Factors for Chemicals. (2 sheets)*

| Chemical | Const. 1 | Const. 2 | Transfer Factors | | | |
|---|---|---|---|---|---|---|
| | | | Soil-to-Plant | | Plant-to-beef | |
| | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| Oxalate | Oxalate | | NA | NA | NA | NA |
| PbII | PbII | | 1.00E-02 | NA | 4.00E-04 | NA |
| PO4 | PO4 | | NA | NA | NA | NA |
| SO4 | SO4 | | NA | NA | NA | NA |
| TBP | TBP | | NA | NA | NA | NA |
| TBPPH | TBPPH | | NA | NA | NA | NA |
| TriChlor | TCE | | 1.84E+00 | NA | 4.90E-06 | NA |
| U | U | | 2.00E-04 | NA | 2.00E-04 | NA |
| ZnII | ZnII | | 2.00E+00 | NA | 1.00E-01 | NA |

Source: GENII database, Pacific Northwest Laboratory.
Blanks in Const. 2 column indicate only one constituent of concern in chemical.
Const. = constituent of concern contained in chemical.
NA = not available.

*Table C-4. Body Weights and Ingestion Rates of Ecological Receptors.*

| Organism | Ingestion rate (g/d) | Body weight (kg) |
|---|---|---|
| Pocket Mouse | 6.7 | 0.0235 |
| Coyote | 1,300 | 10 |
| Red-tailed Hawk | 1,100 | 1 |

*Table C-5. Scaling Factors for Adjusting Wildlife No Observed Adverse Effect Levels for Body Size.*

| Experimental Animal Species | Weight (kg) | Wildlife Species | Weight (kg) | Scaling Factor |
|---|---|---|---|---|
| rat | 0.35 | pocket mouse | 0.0235 | 2.46 |
| rat | 0.35 | coyote | 10 | 0.33 |
| mouse | 0.03 | pocket mouse | 0.0235 | 1.08 |
| mouse | 0.03 | coyote | 10 | 0.14 |
| rabbit | 3.8 | pocket mouse | 0.0235 | 5.45 |
| rabbit | 3.8 | coyote | 10 | 0.72 |
| dog | 12.7 | pocket mouse | 0.0235 | 8.15 |
| dog | 12.7 | coyote | 10 | 1.08 |
| human | 70 | pocket mouse | 0.0235 | 14.39 |
| human | 70 | coyote | 10 | 1.91 |

Scaling factors derived as in Opresko et al. (1993), as (weight experimental animal/weight wildlife species) ^1/3.

*Table C-6. No Observed Adverse Effect Levels for Chemical Intake by Ecological Receptors.*

| Chemical | Const. 1 | Const. 2 | No Observed Adverse Effect Level (mg/kg/day) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Plant | | | | Mouse | | | | Coyote | | | | Hawk | | | |
| | | | Const. 1 | Ref. | Const. 2 | Ref. | Const. 1 | Ref. | Const. 2 | Ref. | Const. 1 | Ref. | Const. 2 | Ref. | Const. 1 | Ref. | Const. 2 | Ref. |
| AgI | Ag | I | 2.00E+00 | 1 | 4.00E+00 | 1 | 1.50E-03 | 3 | | | 1.50E-03 | 3 | | | 5.00E-01 | 3 | | |
| AlFNO3 | Al | F | 1.00E+01 | 1 | 2.00E+02 | 1 | 1.34E-01 | 3 | | | 1.34E-01 | 3 | | | 7.50E-01 | 3 | | |
| AlNO3 | Al | NO3 | 1.00E+01 | 1 | | | 1.34E-01 | 3 | 2.30E+01 | | 1.34E-01 | 3 | 3.06E+00 | 2 | 7.50E-01 | 3 | | |
| Be | Be | | 1.00E+01 | 1 | | | 1.33E+00 | 3 | | | 1.77E-01 | 2 | | | 5.40E-02 | 3 | | |
| BP | BP | | | | | | | | | | | | | | | | | |
| CaNO3 | Ca | NO3 | | | | | | | 2.30E+01 | 2 | | | 3.06E+00 | 2 | | | | |
| CCl4 | CCl4 | | | | | | 1.75E-01 | 2 | | | 2.32E-02 | 2 | | | | | | |
| CdII | CdII | | 2.00E+00 | 1 | | | 5.80E-01 | 3 | | | 5.80E-01 | 3 | | | 2.00E-02 | 3 | | |
| CrVI | CrVI | | 2.00E+01 | 1 | | | 5.90E+00 | 2 | | | 8.50E-01 | 2 | | | 1.50E-01 | 3 | | |
| Cu2SO4 | CuI | | 4.00E+01 | 1 | | | 4.00E-03 | 3 | | | 4.00E-03 | 3 | | | 1.25E-01 | 3 | | |
| CuII | CuII | | 4.00E+01 | 1 | | | 4.00E-03 | 3 | | | 4.00E-03 | 3 | | | 1.25E-01 | 3 | | |
| DBBP | DBBP | | | | | | | | | | | | | | | | | |
| F | F | | 2.00E+02 | 1 | | | | | | | | | | | | | | |
| FeCN | Fe | CN | | | | | | | | | | | | | | | | |
| FeNO3 | Fe | NO3 | | | | | | | 2.30E+01 | 2 | | | 3.06E+00 | 2 | | | | |
| H2SO4 | H2SO4 | | | | | | | | | | | | | | | | | |
| Hg | Hg | | 3.00E-01 | 1 | | | 3.00E-02 | 3 | | | 3.00E-02 | 3 | | | 5.60E-03 | 2 | | |
| HNO3 | NO3 | | | | | | 2.30E+01 | 2 | | | 3.06E+00 | 2 | | | | | | |
| K | K | | | | | | | | | | | | | | | | | |
| KBO2 | K | B | | | 5.00E-01 | 1 | | | | | | | | | | | | |
| MgNO3 | Mg | NO3 | | | | | | | 2.30E+01 | 2 | | | 3.06E+00 | 2 | | | | |
| MIBK | MIBK | | | | | | 1.23E+01 | 2 | | | 1.64E+00 | 2 | | | | | | |
| Na | Na | | | | | | | | | | | | | | | | 7.50E-01 | 3 |
| NaAl | Na | Al | 2.00E+00 | 1 | 1.00E+01 | 1 | | | 1.50E-03 | 3 | | | 1.50E-03 | 3 | | | | |
| NaCr2 | CrVI | | | | | | 5.90E+00 | 2 | | | 8.50E-01 | 2 | | | 1.50E-01 | 3 | | |
| NaOH | Na | OH | | | | | | | | | | | | | | | | |
| NaOxal | Na | CO3 | | | | | | | | | | | | | | | | |
| NaSi | NaSi | | | | | | | | | | | | | | | | | |
| NaSulfam | Na | | | | | | | | | | | | | | | | | |
| NH4CO3 | NH4 | | | | | | | | | | | | | | | | | |
| NH4NO3 | NH4 | NO3 | | | | | | | 2.30E+01 | 2 | | | 3.06E+00 | 2 | | | | |
| NiII | NiII | | 2.50E+01 | 1 | | | 2.25E+01 | 2 | | | 3.00E+00 | 2 | | | 3.50E-01 | 3 | | |
| NO2 | NO2 | | | | | | | | | | | | | | | | | |
| NO3 | NO3 | | | | | | 2.30E+01 | 2 | | | 3.06E+00 | 2 | | | | | | |
| NPH | NPH | | | | | | | | | | | | | | | | | |
| Oxalate | Oxalate | | | | | | | | | | | | | | | | | |
| PbII | PbII | | 5.00E+01 | 1 | | | 1.90E-02 | 3 | | | 1.90E-02 | 3 | | | 1.60E-01 | 3 | | |
| PO4 | PO4 | | | | | | | | | | | | | | | | | |
| SO4 | SO4 | | | | | | | | | | | | | | | | | |
| TBP | TBP | | | | | | | | | | | | | | | | | |
| TBPPH | TBPPH | | | | | | | | | | | | | | | | | |
| TriChlor | TCE | | | | | | 1.85E+02 | 2 | | | 2.45E+01 | 2 | | | | | | |
| U | U | | | | | | 1.53E+00 | 2 | | | 2.03E-01 | 2 | | | 8.90E+00 | 2 | | |
| ZnII | ZnII | | 2.00E+01 | 1 | | | 1.24E+01 | 2 | | | 1.66E+00 | 2 | | | 8.86E-01 | 2 | | |

Const. = constituent of concern contained in chemical
Ref. = reference
References: 1. Suter et al. (1993)
2. Opresko et al. (1993, scaled to body size as described in text
3. DOE-RL (1994)

*Table C-7. Unit Risk Factors for Calculating Chemical Hazard Indices.*

| Chemical | Const. 1 | Const. 2 | Unit Risk Factor | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Mouse | | Coyote | | Hawk | |
| | | | Const. 1 | Const. 2 | Const. 1 | Const. 2 | Const. 1 | Const. 2 |
| AgI | Ag | I | 2.19E-01 | NA | 3.59E+04 | NA | 1.41E+06 | NA |
| AlFNO3 | Al | F | 1.81E+03 | NA | 3.94E+08 | NA | 2.61E+08 | NA |
| AlNO3 | Al | NO3 | 1.81E+03 | NA | 3.94E+08 | NA | 2.61E+08 | NA |
| Be | Be | | 3.53E+03 | NA | 1.92E+08 | NA | 6.94E+06 | NA |
| BP | BP | | NA | NA | NA | NA | NA | NA |
| CaNO3 | Ca | NO3 | NA | NA | NA | NA | NA | NA |
| CCl4 | CCl4 | | NA | NA | NA | NA | NA | NA |
| CdII | CdII | | 8.48E+00 | NA | 6.94E+06 | NA | 2.83E+04 | NA |
| CrVI | CrVI | | 1.29E+04 | NA | 6.78E+07 | NA | 1.41E+06 | NA |
| Cu2SO4 | CuI | | 7.02E-01 | NA | 2.55E+04 | NA | 9.42E+04 | NA |
| CuII | CuII | | 7.02E-01 | NA | 2.55E+04 | NA | 9.42E+04 | NA |
| DBBP | DBBP | | NA | NA | NA | NA | NA | NA |
| F | F | | NA | NA | NA | NA | NA | NA |
| FeCN | Fe | CN | NA | NA | NA | NA | NA | NA |
| FeNO3 | Fe | NO3 | NA | NA | NA | NA | NA | NA |
| H2SO4 | H2SO4 | | NA | NA | NA | NA | NA | NA |
| Hg | Hg | | 2.63E+00 | NA | 8.61E+03 | NA | 1.90E+02 | NA |
| HNO3 | NO3 | | NA | NA | NA | NA | NA | NA |
| K | K | | NA | NA | NA | NA | NA | NA |
| KBO2 | K | B | NA | NA | NA | NA | NA | NA |
| MgNO3 | Mg | NO3 | NA | NA | NA | NA | NA | NA |
| MIBK | MIBK | | NA | NA | NA | NA | NA | NA |
| Na | Na | | NA | NA | NA | NA | NA | NA |
| NaAl | Na | Al | NA | 2.02E+01 | NA | 4.42E+06 | NA | 2.61E+08 |
| NaCr2 | CrVI | | 1.29E+04 | NA | 6.78E+07 | NA | 1.41E+06 | NA |
| NaOH | Na | OH | NA | NA | NA | NA | NA | NA |
| NaOxal | Na | | NA | NA | NA | NA | NA | NA |
| NaSi | NaSi | | NA | NA | NA | NA | NA | NA |
| NaSulfam | Na | | NA | NA | NA | NA | NA | NA |
| NH4CO3 | NH4 | CO3 | NA | NA | NA | NA | NA | NA |
| NH4NO3 | NH4 | NO3 | NA | NA | NA | NA | NA | NA |
| NiII | NiII | | 3.95E+03 | NA | 8.60E+07 | NA | 1.19E+06 | NA |
| NO2 | NO2 | | NA | NA | NA | NA | NA | NA |
| NO3 | NO3 | | NA | NA | NA | NA | NA | NA |
| NPH | NPH | | NA | NA | NA | NA | NA | NA |
| Oxalate | Oxalate | | NA | NA | NA | NA | NA | NA |
| PbII | PbII | | 1.67E+01 | NA | 1.36E+07 | NA | 1.36E+07 | NA |
| PO4 | PO4 | | NA | NA | NA | NA | NA | NA |
| SO4 | SO4 | | NA | NA | NA | NA | NA | NA |
| TBP | TBP | | NA | NA | NA | NA | NA | NA |
| TBPPH | TBPPH | | NA | NA | NA | NA | NA | NA |
| TriChlor | TCE | | 8.80E+02 | NA | 7.82E+09 | NA | NA | NA |
| U | U | | 6.69E+04 | NA | 1.46E+10 | NA | 7.55E+10 | NA |
| ZnII | ZnII | | 5.46E+01 | NA | 2.38E+04 | NA | 1.50E+03 | NA |

Blanks in Const. 2 column indicate only one constituent of concern in chemical.
Const. = constituent of concern contained in chemical.
NA = not available. No NOAEL, transfer factors, or both.

*Table C-8. Unit Risk Factors and Associated Parameters Used to Calculate Radiation Doses.*

| Radionuclide | Effective Decay Energy, MeV | | | | Transfer Factor | | Unit Risk Factor | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk | Soil/Plant (Bv) | Plant/Muscle (Bm) | Plant (Kp) | Mouse (Km) | Coyote (Kc) | Hawk (Kh) |
| Am241 | 5.51E+00 | 5.51E+00 | 5.51E+00 | 5.51E+00 | 2.00E-04 | 2.00E-05 | 5.63E-08 | 3.02E-15 | 3.92E-12 | 3.32E-12 |
| C14 | 5.00E-02 | 5.00E-02 | 5.00E-02 | 5.00E-02 | 1.00E+00 | 1.00E+00 | 2.56E-06 | 6.85E-09 | 8.90E-06 | 7.53E-06 |
| Co58 | 7.28E-02 | 9.05E-02 | 6.33E-01 | 1.74E-01 | 4.00E-03 | 2.00E-02 | 1.49E-08 | 9.92E-13 | 9.02E-09 | 2.10E-09 |
| Co60 | 1.95E-01 | 2.37E-01 | 1.56E+00 | 4.37E-01 | 4.00E-03 | 2.00E-02 | 3.99E-08 | 2.60E-12 | 2.22E-08 | 5.27E-09 |
| Cs134 | 2.30E-01 | 2.59E-01 | 1.14E+00 | 3.96E-01 | 1.00E-02 | 3.00E-02 | 1.18E-07 | 1.06E-11 | 6.09E-08 | 1.79E-08 |
| Cs137 | 2.57E-01 | 2.67E-01 | 5.82E-01 | 3.16E-01 | 1.00E-02 | 3.00E-02 | 1.31E-07 | 1.10E-11 | 3.11E-08 | 1.43E-08 |
| Eu152 | 1.50E+00 | 1.50E+00 | 1.50E+00 | 1.50E+00 | 2.00E-03 | 6.00E-03 | 1.53E-07 | 2.47E-12 | 3.20E-09 | 2.71E-09 |
| Eu154 | 3.11E-01 | 3.11E-01 | 9.65E-01 | 4.28E-01 | 2.00E-03 | 6.00E-03 | 3.18E-08 | 5.11E-13 | 2.06E-09 | 7.74E-10 |
| Eu155 | 6.85E-02 | 6.85E-02 | 6.85E-02 | 6.85E-02 | 2.00E-03 | 6.00E-03 | 7.00E-09 | 1.13E-13 | 1.46E-10 | 1.24E-10 |
| H3 | 5.80E-03 | 5.80E-03 | 5.80E-03 | 5.80E-03 | 1.00E+00 | 1.00E+00 | 2.96E-07 | 7.94E-10 | 1.03E-06 | 8.74E-07 |
| I129 | 6.02E-02 | 6.28E-02 | 8.72E-02 | 6.94E-02 | 4.00E-01 | 2.00E-03 | 1.23E-06 | 6.88E-12 | 1.24E-08 | 8.36E-09 |
| Mn54 | 3.64E-02 | 5.14E-02 | 5.12E-01 | 1.22E-01 | 2.00E-01 | 5.00E-04 | 3.72E-07 | 7.04E-13 | 9.12E-09 | 1.84E-09 |
| Nb95 | NA | NA | NA | NA | 8.00E-03 | 2.60E-07 | NA | NA | NA | NA |
| Ni63 | 1.76E-02 | 1.76E-02 | 1.76E-02 | 1.76E-02 | 5.00E-02 | 2.00E-03 | 4.50E-08 | 2.41E-13 | 3.13E-10 | 2.65E-10 |
| Pm147 | 6.20E-02 | 6.20E-02 | 6.20E-02 | 6.20E-02 | 1.00E-03 | 5.00E-03 | 3.17E-09 | 4.25E-14 | 5.52E-11 | 4.67E-11 |
| Po210 | NA | NA | NA | NA | 1.00E-03 | 4.50E-03 | NA | NA | NA | NA |
| Pu238 | 5.51E+00 | 5.51E+00 | 5.51E+00 | 5.51E+00 | 4.00E-05 | 2.00E-06 | 1.13E-08 | 6.04E-17 | 7.85E-14 | 6.64E-14 |
| Pu239 | 5.15E+00 | 5.15E+00 | 5.15E+00 | 5.15E+00 | 4.00E-05 | 2.00E-06 | 1.05E-08 | 5.64E-17 | 7.33E-14 | 6.21E-14 |
| Pu240 | 5.16E+00 | 5.16E+00 | 5.16E+00 | 5.16E+00 | 4.00E-05 | 2.00E-06 | 1.05E-08 | 5.65E-17 | 7.35E-14 | 6.22E-14 |
| Pu241 | 5.35E-03 | 5.35E-03 | 6.36E-03 | 5.35E-03 | 4.00E-05 | 2.00E-06 | 1.09E-11 | 5.86E-20 | 9.06E-17 | 6.45E-17 |
| Re187 | NA | NA | NA | NA | 9.90E-04 | 9.90E-04 | NA | NA | NA | NA |
| Ru106 | 1.44E+00 | 1.44E+00 | 1.56E+00 | 1.46E+00 | 2.00E-01 | 2.00E-03 | 1.47E-05 | 7.89E-11 | 1.11E-07 | 8.80E-08 |
| Sb125 | 1.05E-01 | 1.13E-01 | 3.53E-01 | 1.50E-01 | 5.00E-02 | 1.00E-03 | 2.68E-07 | 7.74E-13 | 3.14E-09 | 1.13E-09 |
| Sn113 | NA | NA | NA | NA | 1.00E-02 | 1.00E-02 | NA | NA | NA | NA |
| Sn123M | NA | NA | NA | NA | 1.00E-02 | 1.00E-02 | NA | NA | NA | NA |
| Sr90 | 2.08E+00 | 2.08E+00 | 2.08E+00 | 2.08E+00 | 2.00E-01 | 8.00E-04 | 2.12E-05 | 4.56E-11 | 5.92E-08 | 5.01E-08 |
| Tc99 | 8.40E-02 | 8.40E-02 | 8.40E-02 | 8.40E-02 | 4.00E+01 | 9.90E-04 | 1.72E-04 | 4.56E-10 | 5.92E-07 | 5.01E-07 |
| Th232 | 4.00E+00 | 4.00E+00 | 4.00E+00 | 4.00E+00 | 4.00E-04 | 5.00E-03 | 8.18E-08 | 1.10E-12 | 1.42E-09 | 1.21E-09 |
| U234 | 4.90E+00 | 4.90E+00 | 4.90E+00 | 4.90E+00 | 2.00E-04 | 2.00E-04 | 5.01E-08 | 2.68E-14 | 3.49E-11 | 2.95E-11 |
| U235 | 4.60E+00 | 4.60E+00 | 4.60E+00 | 4.60E+00 | 2.00E-04 | 2.00E-04 | 4.70E-08 | 2.52E-14 | 3.28E-11 | 2.77E-11 |
| U238 | 4.30E+00 | 4.30E+00 | 4.30E+00 | 4.30E+00 | 2.00E-04 | 2.00E-04 | 4.39E-08 | 2.36E-14 | 3.06E-11 | 2.59E-11 |

NA = not available in Baker and Soldat (1992).

*Table C-9. Water Concentrations Used to Calculate Maximum Radiation Doses to Aquatic Organisms.*

| Radionuclide | Location | | | | |
|---|---|---|---|---|---|
| | 100-N Springs (pCi/L) | 216-B-3 (pCi/L) | 216-N-8 (pCi/L) | 400 FFTF (pCi/L) | Columbia River (pCi/L) |
| Be-7 | | 1.55 E+01 | | 5.23 E+00 | 6.82 E+01 |
| Ce-134 | | 8.35 E+00 | | 8.98 E-01 | |
| Co-60 | 5.20 E+00 | 4.74 E-01 | | 6.02 E-01 | 1.25 E+00 |
| Cs-137 | | | 9.64 E-01 | 1.97 E+00 | |
| Cs-134 | | 7.33 E-01 | | 7.29 E-01 | |
| Eu-154 | | 1.29 E+00 | | 3.47 E+00 | |
| Eu-155 | | 2.34 E+00 | | 1.27 E+00 | |
| H-3 | 7.70 E+02 | 4.69 E+02 | 5.12 E+02 | 7.33 E+03 | 1.62 E+02 |
| K-40 | | 7.14 E+01 | | 6.85 E+01 | 5.88 E+01 |
| Pu-238 | | | | | |
| Pu-239 | | | | | |
| Ru-106 | | 8.34 E+00 | 7.97 E+01 | 2.24 E+00 | 8.43 E+00 |
| Sb-125 | | 1.99 E+00 | | 5.93 E-01 | 7.29 E-01 |
| Sr-90 | 1.50 E+02 | | 1.93 E+00 | | |
| Tc-99 | | 3.55 E+05 | 1.07 E+02 | | 5.24 E+01 |
| U-234 | | | | | 3.10 E-01 |
| U-235 | | | | | |
| U-238 | | | | | |
| Zn-65 | | 1.45 E+00 | | 2.18 E+00 | |
| Zr-95 | | 1.867 E+01 | | 1.33 E+01 | |

*Table C-10. Water Concentrations Used to Calculate Mean Radiation Doses to Aquatic Organisms.*

| Radionuclide | Location | | | | |
|---|---|---|---|---|---|
| | 100-N Springs (pCi/L) | 216-B-3 (pCi/L) | 216-N-8 (pCi/L) | 400 FFTF (pCi/L) | Columbia River (pCi/L) |
| Be-7 | 2.75 E+01 | | 2.64 E+00 | 2.48 E-01 | 1.45 E+01 |
| Co-60 | 1.20 E+00 | | | 8.01 E-01 | |
| Cs-137 | | | | | |
| Cs-134 | | | | 8.33 E-01 | |
| Eu-154 | 1.33 E+01 | | | 8.19 E-01 | |
| Eu-155 | | 6.48 E-01 | 3.95 E+02 | 6.53 E+03 | |
| H-3 | 3.90 E+02 | 1.42 E+02 | | 3.27 E+01 | 1.32 E+01 |
| K-40 | 1.06 E+02 | 3.10 E+01 | | | 3.25 E+01 |
| Pu-238 | | | | | |
| Pu-239 | | | 1.86 E+00 | | |
| Ru-106 | | 3.20 E+00 | 1.67 E+00 | | 3.91 E-01 |
| Sr-90 | 4.90 E+01 | | 5.97 E+01 | | |
| Tc-99 | 2.44 E+00 | | | | 1.42 E+01 |
| U-234 | | | | | 2.76 E-01 |
| U-235 | | | | | |
| U-238 | | | | 7.44 E-01 | |
| Zn-65 | | | | 2.92 E+00 | |
| Zr-95 | | 2.08 E+00 | | | |

*Table C-11. Hazard Index by Chemical by Cell, Reactors on the River.*

| Cell ID | Chemical | Hazard Index | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 565144 | NaOxal | | | | |
| 565144 | NaSulfam | | | | |
| 565144 | NaCr2 | 3.83 E+03 | 5.91 E-01 | 1.13 E-04 | 5.41 E-03 |
| 565145 | NaCr2 | 1.02 E+00 | 1.57 E-04 | 3.00 E-08 | 1.44 E-06 |
| 569146 | NaOH | | | | |
| 569146 | Hg | 2.70 E+04 | 3.08 E+03 | 9.41 E-01 | 4.27 E+01 |
| 569147 | H2SO4 | | | | |
| 569147 | SulfAcid | | | | |
| 569147 | Cu2SO4 | 4.23 E-02 | 2.41 E+00 | 6.62 E-05 | 1.79 E-05 |
| 569147 | NaCr2 | 4.45 E+02 | 6.87 E-02 | 1.31 E-05 | 6.29 E-04 |
| 573151 | NaOxal | | | | |
| 573151 | NaSulfam | | | | |
| 573151 | KBO2 | 1.41 E+04 | | | |
| 573151 | NaCr2 | 7.74 E+01 | 1.20 E-02 | 2.28 E-06 | 1.10 E-04 |
| 573152 | NaCr2 | 1.00 E+00 | 1.55 E-04 | 2.96 E-08 | 1.42 E-06 |
| 574152 | NaCr2 | 1.93 E+00 | 2.98 E-04 | 5.70 E-08 | 2.73 E-06 |
| 577152 | NaOxal | | | | |
| 577152 | NaSulfam | | | | |
| 577152 | NaCr2 | 4.64 E+03 | 7.17 E-01 | 1.37 E-04 | 6.56 E-03 |
| 578152 | NaCr2 | 2.35 E+00 | 3.63 E-04 | 6.93 E-08 | 3.33 E-06 |
| 580147 | NaOxal | | | | |
| 580147 | NaSulfam | | | | |
| 580147 | SulfAcid | | | | |
| 580147 | NaCr2 | 8.49 E+03 | 1.31 E+00 | 2.50 E-04 | 1.20 E-02 |
| 581147 | NaCr2 | 1.40 E+00 | 2.17 E-04 | 4.14 E-08 | 1.99 E-06 |

NOTE: Blanks indicate no data for NOAELs, transfer factors, or both. See tables of these variables for details.

***Table C-12. Hazard Index Summed by Cell, Reactors on the River.***

| Cell ID | Hazard Index | | | |
|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk |
| 565144 | 3.83 E+03 | 5.91 E-01 | 1.13 E-04 | 5.41 E-03 |
| 565145 | 1.02 E+00 | 1.57 E-04 | 3.00 E-08 | 1.44 E-06 |
| 569146 | 2.70 E+04 | 3.08 E+03 | 9.41 E-01 | 4.27 E+01 |
| 569147 | 4.45 E+02 | 2.48 E+00 | 7.94 E-05 | 6.47 E-04 |
| 573151 | 1.42 E+04 | 1.20 E-02 | 2.28 E-06 | 1.10 E-04 |
| 573152 | 1.00 E+00 | 1.55 E-04 | 2.96 E-08 | 1.42 E-06 |
| 574152 | 1.93 E+00 | 2.98 E-04 | 5.70 E-08 | 2.73 E-06 |
| 577152 | 4.64 E+03 | 7.17 E-01 | 1.37 E-04 | 6.56 E-03 |
| 578152 | 2.35 E+00 | 3.63 E-04 | 6.93 E-08 | 3.33 E-06 |
| 580147 | 8.49 E+03 | 1.31 E+00 | 2.50 E-04 | 1.20 E-02 |
| 581147 | 1.40 E+00 | 2.17 E-04 | 4.14 E-08 | 1.99 E-06 |

*Table C-13. Estimated Radiation Dose by Radionuclide by Cell, Reactors on the River. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 564143 | C-14 | 1.38 E-05 | 3.69 E-08 | 4.80 E-05 | 4.06 E-05 |
| 564143 | Co-60 | 8.20 E-05 | 5.34 E-09 | 4.57 E-05 | 1.08 E-05 |
| 564143 | Cs-137 | 1.54 E-06 | 1.29 E-10 | 3.65 E-07 | 1.68 E-07 |
| 564143 | Eu-152 | 1.78 E-05 | 2.87 E-10 | 3.73 E-07 | 3.15 E-07 |
| 564143 | Eu-154 | 6.06 E-06 | 9.74 E-11 | 3.93 E-07 | 1.48 E-07 |
| 564143 | H-3 | 7.79 E-03 | 2.09 E-05 | 2.71 E-02 | 2.30 E-02 |
| 564143 | Ni-63 | 3.62 E-05 | 1.94 E-10 | 2.52 E-07 | 2.13 E-07 |
| 564143 | Sr-90 | 2.49 E-04 | 5.34 E-10 | 6.94 E-07 | 5.87 E-07 |
| 565143 | C-14 | 1.06 E-04 | 2.85 E-07 | 3.71 E-04 | 3.14 E-04 |
| 565143 | Co-60 | 6.37 E-05 | 4.15 E-09 | 3.55 E-05 | 8.42 E-06 |
| 565143 | Cs-137 | 1.88 E-06 | 1.57 E-10 | 4.44 E-07 | 2.04 E-07 |
| 565143 | Eu-152 | 2.15 E-05 | 3.46 E-10 | 4.49 E-07 | 3.80 E-07 |
| 565143 | Eu-154 | 7.31 E-06 | 1.18 E-10 | 4.74 E-07 | 1.78 E-07 |
| 565143 | H-3 | 2.44 E-05 | 6.54 E-08 | 8.51 E-05 | 7.20 E-05 |
| 565143 | Ni-63 | 3.28 E-05 | 1.76 E-10 | 2.29 E-07 | 1.94 E-07 |
| 565143 | Sr-90 | 3.02 E-04 | 6.48 E-10 | 8.43 E-07 | 7.13 E-07 |
| 565144 | Co-60 | 2.76 E-01 | 1.80 E-05 | 1.54 E-01 | 3.65 E-02 |
| 565144 | Cs-134 | 7.51 E-07 | 6.80 E-11 | 3.89 E-07 | 1.14 E-07 |
| 565144 | Cs-137 | 9.18 E-04 | 7.67 E-08 | 2.17 E-04 | 9.99 E-05 |
| 565144 | Eu-152 | 6.05 E-04 | 9.72 E-09 | 1.26 E-05 | 1.07 E-05 |
| 565144 | Eu-154 | 6.80 E-06 | 1.09 E-10 | 4.41 E-07 | 1.65 E-07 |
| 565144 | Eu-155 | 7.88 E-06 | 1.27 E-10 | 1.65 E-07 | 1.39 E-07 |
| 565144 | H-3 | 4.73 E+00 | 1.27 E-02 | 1.65 E+01 | 1.39 E+01 |
| 565144 | Ni-63 | 9.95 E-03 | 5.33 E-08 | 6.93 E-05 | 5.87 E-05 |
| 565144 | Pu-238 | 1.13 E-06 | 6.05 E-15 | 7.86 E-12 | 6.65 E-12 |
| 565144 | Pu-239 | 1.05 E-06 | 5.62 E-15 | 7.30 E-12 | 6.18 E-12 |
| 565144 | Pu-240 | 1.17 E-07 | 6.25 E-16 | 8.12 E-13 | 6.87 E-13 |
| 565144 | Sr-90 | 1.48 E-01 | 3.17 E-07 | 4.12 E-04 | 3.49 E-04 |
| 565144 | U-235 | 7.61 E-09 | 4.08 E-15 | 5.31 E-12 | 4.49 E-12 |
| 565144 | U-238 | 4.86 E-06 | 2.61 E-12 | 3.39 E-09 | 2.87 E-09 |
| 565145 | C-14 | 1.56 E-04 | 4.19 E-07 | 5.45 E-04 | 4.61 E-04 |
| 565145 | Co-60 | 2.31 E-03 | 1.50 E-07 | 1.29 E-03 | 3.05 E-04 |
| 565145 | Cs-134 | 4.88 E-08 | 4.41 E-12 | 2.53 E-08 | 7.42 E-09 |
| 565145 | Cs-137 | 1.01 E-04 | 8.41 E-09 | 2.38 E-05 | 1.10 E-05 |
| 565145 | Eu-152 | 1.78 E-04 | 2.86 E-09 | 3.71 E-06 | 3.14 E-06 |
| 565145 | Eu-154 | 1.35 E-05 | 2.17 E-10 | 8.75 E-07 | 3.28 E-07 |
| 565145 | Eu-155 | 3.58 E-06 | 5.76 E-11 | 7.48 E-08 | 6.33 E-08 |
| 565145 | H-3 | 4.91 E-06 | 1.32 E-08 | 1.71 E-05 | 1.45 E-05 |
| 565145 | Pu-238 | 3.23 E-10 | 1.73 E-18 | 2.25 E-15 | 1.91 E-15 |
| 565145 | Pu-239 | 1.56 E-08 | 8.35 E-17 | 1.08 E-13 | 9.18 E-14 |
| 565145 | Pu-240 | 1.66 E-08 | 8.92 E-17 | 1.16 E-13 | 9.82 E-14 |

*Table C-13. Estimated Radiation Dose by Radionuclide by Cell, Reactors on the River. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 565145 | Sr-90 | 2.97 E-04 | 6.36 E-10 | 8.27 E-07 | 6.99 E-07 |
| 565145 | U-235 | 2.63 E-08 | 1.41 E-14 | 1.83 E-11 | 1.55 E-11 |
| 565145 | U-238 | 5.50 E-08 | 2.95 E-14 | 3.83 E-11 | 3.24 E-11 |
| 568146 | C-14 | 4.02 E-01 | 1.08 E-03 | 1.40 E+00 | 1.18 E+00 |
| 568146 | Co-60 | 3.68 E-08 | 2.39 E-12 | 2.05 E-08 | 4.86 E-09 |
| 568146 | Cs-134 | 2.00 E-09 | 1.81 E-13 | 1.03 E-09 | 3.04 E-10 |
| 568146 | Cs-137 | 6.56 E-07 | 5.48 E-11 | 1.55 E-07 | 7.13 E-08 |
| 568146 | Eu-152 | 1.03 E-07 | 1.66 E-12 | 2.15 E-09 | 1.82 E-09 |
| 568146 | Eu-154 | 4.59 E-09 | 7.38 E-14 | 2.98 E-10 | 1.12 E-10 |
| 568146 | Eu-155 | 5.73 E-09 | 9.21 E-14 | 1.20 E-10 | 1.01 E-10 |
| 568146 | H-3 | 2.94 E-02 | 7.87 E-05 | 1.02 E-01 | 8.66 E-02 |
| 568146 | Sr-90 | 1.81 E-04 | 3.87 E-10 | 5.04 E-07 | 4.26 E-07 |
| 568146 | U-235 | 7.73 E-09 | 4.14 E-15 | 5.39 E-12 | 4.56 E-12 |
| 569146 | C-14 | 4.02 E-01 | 1.08 E-03 | 1.40 E+00 | 1.18 E+00 |
| 569146 | Co-60 | 4.91 E-04 | 3.20 E-08 | 2.74 E-04 | 6.48 E-05 |
| 569146 | Cs-134 | 2.04 E-11 | 1.84 E-15 | 1.05 E-11 | 3.10 E-12 |
| 569146 | Cs-137 | 1.75 E-04 | 1.47 E-08 | 4.15 E-05 | 1.91 E-05 |
| 569146 | Eu-152 | 1.71 E-05 | 2.75 E-10 | 3.58 E-07 | 3.03 E-07 |
| 569146 | Eu-154 | 7.25 E-06 | 1.17 E-10 | 4.70 E-07 | 1.77 E-07 |
| 569146 | Eu-155 | 1.11 E-07 | 1.79 E-12 | 2.33 E-09 | 1.97 E-09 |
| 569146 | H-3 | 2.03 E-02 | 5.43 E-05 | 7.06 E-02 | 5.98 E-02 |
| 569146 | Ni-63 | 4.72 E-05 | 2.53 E-10 | 3.29 E-07 | 2.78 E-07 |
| 569146 | Pu-239 | 3.25 E-07 | 1.74 E-15 | 2.26 E-12 | 1.92 E-12 |
| 569146 | Pu-240 | 3.64 E-08 | 1.95 E-16 | 2.54 E-13 | 2.15 E-13 |
| 569146 | Sb-125 | 7.49 E-06 | 2.16 E-11 | 8.77 E-08 | 3.15 E-08 |
| 569146 | Sr-90 | 7.52 E-02 | 1.61 E-07 | 2.10 E-04 | 1.77 E-04 |
| 569146 | U-235 | 1.71 E-09 | 9.15 E-16 | 1.19 E-12 | 1.01 E-12 |
| 569146 | U-238 | 1.66 E-07 | 8.90 E-14 | 1.16 E-10 | 9.79 E-11 |
| 569147 | C-14 | 1.95 E-05 | 5.22 E-08 | 6.78 E-05 | 5.74 E-05 |
| 569147 | Co-60 | 1.12 E-05 | 7.27 E-10 | 6.22 E-06 | 1.48 E-06 |
| 569147 | Cs-134 | 2.13 E-07 | 1.93 E-11 | 1.10 E-07 | 3.24 E-08 |
| 569147 | Cs-137 | 1.52 E-04 | 1.27 E-08 | 3.61 E-05 | 1.66 E-05 |
| 569147 | Eu-152 | 7.76 E-04 | 1.25 E-08 | 1.62 E-05 | 1.37 E-05 |
| 569147 | Eu-154 | 4.21 E-05 | 6.77 E-10 | 2.73 E-06 | 1.02 E-06 |
| 569147 | Eu-155 | 3.66 E-07 | 5.89 E-12 | 7.66 E-09 | 6.48 E-09 |
| 569147 | H-3 | 3.20 E-05 | 8.57 E-08 | 1.11 E-04 | 9.43 E-05 |
| 569147 | Ni-63 | 5.25 E-05 | 2.81 E-10 | 3.66 E-07 | 3.09 E-07 |
| 569147 | Pu-238 | 1.65 E-08 | 8.86 E-17 | 1.15 E-13 | 9.75 E-14 |
| 569147 | Pu-239 | 4.02 E-07 | 2.16 E-15 | 2.80 E-12 | 2.37 E-12 |
| 569147 | Pu-240 | 4.48 E-08 | 2.40 E-16 | 3.12 E-13 | 2.64 E-13 |
| 569147 | Sr-90 | 1.49 E-03 | 3.18 E-09 | 4.14 E-06 | 3.50 E-06 |
| 569147 | U-235 | 1.11 E-09 | 5.95 E-16 | 7.73 E-13 | 6.54 E-13 |
| 569147 | U-238 | 1.18 E-07 | 6.34 E-14 | 8.24 E-11 | 6.98 E-11 |
| 571149 | Fe-59 | | | | |
| 571149 | Zr-95 | | | | |

*Table C-13. Estimated Radiation Dose by Radionuclide by Cell, Reactors on the River. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 571149 | Ce-144 | | | | |
| 571149 | Co-60 | 1.35 E-03 | 8.80 E-08 | 7.53 E-04 | 1.78 E-04 |
| 571149 | Cs-134 | 2.21 E-05 | 2.00 E-09 | 1.14 E-05 | 3.36 E-06 |
| 571149 | Cs-137 | 4.31 E-03 | 3.60 E-07 | 1.02 E-03 | 4.69 E-04 |
| 571149 | H-3 | 4.01 E-03 | 1.07 E-05 | 1.40 E-02 | 1.18 E-02 |
| 571149 | Mn-54 | 1.35 E-05 | 2.56 E-11 | 3.32 E-07 | 6.68 E-08 |
| 571149 | Nb-95 | 2.99 E-06 | 1.60 E-14 | 2.08 E-11 | 1.76 E-11 |
| 571149 | Pu-239 | 1.47 E-03 | 7.85 E-09 | 1.11 E-05 | 8.76 E-06 |
| 571149 | Ru-103 | | | | |
| 571149 | Ru-106 | | | | |
| 571149 | Sr-90 | 5.44 E-01 | 1.17 E-06 | 1.52 E-03 | 1.28 E-03 |
| 571149 | Tc-99 | 9.58 E-01 | 2.54 E-06 | 3.30 E-03 | 2.79 E-03 |
| 572150 | C-14 | 1.12 E-05 | 3.00 E-08 | 3.90 E-05 | 3.30 E-05 |
| 572150 | Co-60 | 1.59 E-05 | 1.03 E-09 | 8.86 E-06 | 2.10 E-06 |
| 572150 | Cs-137 | 1.25 E-06 | 1.05 E-10 | 2.97 E-07 | 1.36 E-07 |
| 572150 | Eu-152 | 1.43 E-05 | 2.30 E-10 | 2.99 E-07 | 2.53 E-07 |
| 572150 | Eu-154 | 4.55 E-06 | 7.31 E-11 | 2.95 E-07 | 1.11 E-07 |
| 572150 | H-3 | 5.83 E-06 | 1.56 E-08 | 2.03 E-05 | 1.72 E-05 |
| 572150 | Ni-63 | 2.81 E-05 | 1.51 E-10 | 1.96 E-07 | 1.66 E-07 |
| 572150 | Sr-90 | 2.02 E-04 | 4.34 E-10 | 5.64 E-07 | 4.77 E-07 |
| 573150 | Co-60 | 9.55 E-06 | 6.22 E-10 | 5.32 E-06 | 1.26 E-06 |
| 573151 | C-14 | 1.51 E-05 | 4.04 E-08 | 5.25 E-05 | 4.45 E-05 |
| 573151 | Co-60 | 7.34 E-04 | 4.78 E-08 | 4.09 E-04 | 9.70 E-05 |
| 573151 | Cs-134 | 6.56 E-09 | 5.94 E-13 | 3.40 E-09 | 9.98 E-10 |
| 573151 | Cs-137 | 2.15 E-04 | 1.79 E-08 | 5.09 E-05 | 2.34 E-05 |
| 573151 | Eu-152 | 2.62 E-05 | 4.22 E-10 | 5.48 E-07 | 4.64 E-07 |
| 573151 | Eu-154 | 6.13 E-06 | 9.86 E-11 | 3.98 E-07 | 1.49 E-07 |
| 573151 | Eu-155 | 7.10 E-07 | 1.14 E-11 | 1.48 E-08 | 1.26 E-08 |
| 573151 | H-3 | 6.07 E-05 | 1.63 E-07 | 2.11 E-04 | 1.79 E-04 |
| 573151 | Ni-63 | 2.12 E-05 | 1.14 E-10 | 1.48 E-07 | 1.25 E-07 |
| 573151 | Pu-239 | 5.44 E-08 | 2.92 E-16 | 3.79 E-13 | 3.21 E-13 |
| 573151 | Pu-240 | 6.05 E-09 | 3.24 E-17 | 4.22 E-14 | 3.57 E-14 |
| 573151 | Sr-90 | 4.62 E-02 | 9.91 E-08 | 1.29 E-04 | 1.09 E-04 |
| 573151 | U-235 | 5.96 E-10 | 3.19 E-16 | 4.15 E-13 | 3.51 E-13 |
| 573151 | U-238 | 6.91 E-08 | 3.70 E-14 | 4.81 E-11 | 4.07 E-11 |
| 573152 | Co-60 | 3.78 E-06 | 2.46 E-10 | 2.11 E-06 | 4.99 E-07 |
| 573152 | Cs-134 | 1.08 E-08 | 9.78 E-13 | 5.59 E-09 | 1.64 E-09 |
| 573152 | Cs-137 | 2.29 E-04 | 1.91 E-08 | 5.41 E-05 | 2.49 E-05 |
| 573152 | Eu-152 | 9.80 E-05 | 1.58 E-09 | 2.05 E-06 | 1.73 E-06 |
| 573152 | Eu-154 | 3.30 E-06 | 5.31 E-11 | 2.14 E-07 | 8.04 E-08 |
| 573152 | Eu-155 | 6.20 E-08 | 9.97 E-13 | 1.30 E-09 | 1.10 E-09 |
| 573152 | H-3 | 1.54 E-05 | 4.13 E-08 | 5.37 E-05 | 4.55 E-05 |
| 573152 | Pu-238 | 2.39 E-11 | 1.28 E-19 | 1.66 E-16 | 1.41 E-16 |
| 573152 | Pu-239 | 4.77 E-08 | 2.55 E-16 | 3.32 E-13 | 2.81 E-13 |
| 573152 | Pu-240 | 5.30 E-09 | 2.84 E-17 | 3.70 E-14 | 3.13 E-14 |

*Table C-13. Estimated Radiation Dose by Radionuclide by Cell, Reactors on the River. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 573152 | Sr-90 | 8.46 E-04 | 1.81 E-09 | 2.36 E-06 | 2.00 E-06 |
| 573152 | U-235 | 2.61 E-09 | 1.40 E-15 | 1.82 E-12 | 1.54 E-12 |
| 573152 | U-238 | 1.76 E-07 | 9.41 E-14 | 1.22 E-10 | 1.04 E-10 |
| 574152 | Co-60 | 7.28 E-06 | 4.74 E-10 | 4.06 E-06 | 9.61 E-07 |
| 574152 | Cs-134 | 2.12 E-08 | 1.92 E-12 | 1.10 E-08 | 3.24 E-09 |
| 574152 | Cs-137 | 4.40 E-04 | 3.68 E-08 | 1.04 E-04 | 4.79 E-05 |
| 574152 | Eu-152 | 1.89 E-04 | 3.03 E-09 | 3.94 E-06 | 3.34 E-06 |
| 574152 | Eu-154 | 6.36 E-06 | 1.02 E-10 | 4.12 E-07 | 1.55 E-07 |
| 574152 | Eu-155 | 1.19 E-07 | 1.92 E-12 | 2.50 E-09 | 2.11 E-09 |
| 574152 | H-3 | 2.97 E-05 | 7.95 E-08 | 1.03 E-04 | 8.75 E-05 |
| 574152 | Pu-239 | 9.18 E-08 | 4.92 E-16 | 6.39 E-13 | 5.41 E-13 |
| 574152 | Pu-240 | 1.02 E-08 | 5.47 E-17 | 7.12 E-14 | 6.02 E-14 |
| 574152 | Sr-90 | 1.63 E-03 | 3.49 E-09 | 4.54 E-06 | 3.84 E-06 |
| 574152 | U-235 | 3.12 E-09 | 1.67 E-15 | 2.18 E-12 | 1.84 E-12 |
| 574152 | U-238 | 3.28 E-07 | 1.76 E-13 | 2.29 E-10 | 1.94 E-10 |
| 577152 | C-14 | 1.39 E-05 | 3.72 E-08 | 4.84 E-05 | 4.09 E-05 |
| 577152 | Co-60 | 4.13 E-05 | 2.69 E-09 | 2.30 E-05 | 5.45 E-06 |
| 577152 | Cs-134 | 7.89 E-11 | 7.14 E-15 | 4.09 E-11 | 1.20 E-11 |
| 577152 | Cs-137 | 1.85 E-05 | 1.55 E-09 | 4.39 E-06 | 2.02 E-06 |
| 577152 | Eu-152 | 5.04 E-05 | 8.11 E-10 | 1.05 E-06 | 8.92 E-07 |
| 577152 | Eu-154 | 5.08 E-06 | 8.17 E-11 | 3.30 E-07 | 1.24 E-07 |
| 577152 | Eu-155 | 2.59 E-08 | 4.17 E-13 | 5.42 E-10 | 4.59 E-10 |
| 577152 | H-3 | 7.24 E-06 | 1.94 E-08 | 2.52 E-05 | 2.13 E-05 |
| 577152 | Pu-238 | 1.83 E-09 | 9.79 E-18 | 1.27 E-14 | 1.08 E-14 |
| 577152 | Pu-239 | 5.85 E-08 | 3.14 E-16 | 4.08 E-13 | 3.45 E-13 |
| 577152 | Pu-240 | 3.32 E-11 | 1.78 E-19 | 2.31 E-16 | 1.96 E-16 |
| 577152 | Sr-90 | 7.51 E-04 | 1.61 E-09 | 2.09 E-06 | 1.77 E-06 |
| 577152 | U-235 | 2.62 E-07 | 1.40 E-13 | 1.82 E-10 | 1.54 E-10 |
| 577152 | U-238 | 2.06 E-08 | 1.10 E-14 | 1.43 E-11 | 1.21 E-11 |
| 578152 | C-14 | 1.34 E-07 | 3.60 E-10 | 4.68 E-07 | 3.96 E-07 |
| 578152 | Co-60 | 3.32 E-06 | 2.16 E-10 | 1.85 E-06 | 4.38 E-07 |
| 578152 | Cs-134 | 2.00 E-10 | 1.81 E-14 | 1.04 E-10 | 3.04 E-11 |
| 578152 | Cs-137 | 6.85 E-05 | 5.72 E-09 | 1.62 E-05 | 7.45 E-06 |
| 578152 | Eu-152 | 1.74 E-04 | 2.80 E-09 | 3.64 E-06 | 3.08 E-06 |
| 578152 | Eu-154 | 1.76 E-05 | 2.83 E-10 | 1.14 E-06 | 4.28 E-07 |
| 578152 | Eu-155 | 9.05 E-08 | 1.46 E-12 | 1.89 E-09 | 1.60 E-09 |
| 578152 | H-3 | 1.11 E-06 | 2.98 E-09 | 3.88 E-06 | 3.28 E-06 |
| 578152 | Pu-238 | 1.90 E-11 | 1.02 E-19 | 1.32 E-16 | 1.12 E-16 |
| 578152 | Pu-239 | 9.45 E-08 | 5.07 E-16 | 6.59 E-13 | 5.57 E-13 |
| 578152 | Pu-240 | 1.06 E-08 | 5.67 E-17 | 7.37 E-14 | 6.23 E-14 |
| 578152 | Sr-90 | 2.18 E-03 | 4.68 E-09 | 6.08 E-06 | 5.14 E-06 |
| 578152 | U-235 | 9.85 E-09 | 5.28 E-15 | 6.86 E-12 | 5.81 E-12 |
| 578152 | U-238 | 1.05 E-06 | 5.64 E-13 | 7.33 E-10 | 6.20 E-10 |
| 579147 | Co-60 | 1.71 E-05 | 1.12 E-09 | 9.54 E-06 | 2.26 E-06 |
| 580147 | C-14 | 8.04 E-05 | 2.16 E-07 | 2.80 E-04 | 2.37 E-04 |

*Table C-13. Estimated Radiation Dose by Radionuclide by Cell, Reactors on the River. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 580147 | Co-60 | 2.27 E-05 | 1.48 E-09 | 1.27 E-05 | 3.00 E-06 |
| 580147 | Cs-134 | 4.01 E-07 | 3.63 E-11 | 2.08 E-07 | 6.10 E-08 |
| 580147 | Cs-137 | 1.45 E-03 | 1.21 E-07 | 3.42 E-04 | 1.57 E-04 |
| 580147 | Eu-152 | 3.63 E-05 | 5.83 E-10 | 7.58 E-07 | 6.42 E-07 |
| 580147 | Eu-154 | 6.40 E-06 | 1.03 E-10 | 4.15 E-07 | 1.56 E-07 |
| 580147 | Eu-155 | 1.07 E-06 | 1.72 E-11 | 2.24 E-08 | 1.89 E-08 |
| 580147 | H-3 | 3.16 E-04 | 8.47 E-07 | 1.10 E-03 | 9.32 E-04 |
| 580147 | Ni-63 | 3.53 E-05 | 1.89 E-10 | 2.46 E-07 | 2.08 E-07 |
| 580147 | Pu-238 | 4.43 E-08 | 2.37 E-16 | 3.09 E-13 | 2.61 E-13 |
| 580147 | Pu-239 | 3.04 E-06 | 1.63 E-14 | 2.12 E-11 | 1.79 E-11 |
| 580147 | Pu-240 | 3.38 E-07 | 1.81 E-15 | 2.36 E-12 | 2.00 E-12 |
| 580147 | Sr-90 | 1.57 E-01 | 3.38 E-07 | 4.39 E-04 | 3.71 E-04 |
| 580147 | U-235 | 3.59 E-09 | 1.93 E-15 | 2.50 E-12 | 2.12 E-12 |
| 580147 | U-238 | 5.34 E-07 | 2.86 E-13 | 3.72 E-10 | 3.15 E-10 |
| 581147 | C-14 | 2.90 E-07 | 7.76 E-10 | 1.01 E-06 | 8.54 E-07 |
| 581147 | Co-60 | 2.61 E-06 | 1.70 E-10 | 1.46 E-06 | 3.45 E-07 |
| 581147 | Cs-134 | 1.30 E-09 | 1.17 E-13 | 6.72 E-10 | 1.98 E-10 |
| 581147 | Cs-137 | 1.23 E-05 | 1.03 E-09 | 2.91 E-06 | 1.34 E-06 |
| 581147 | Eu-152 | 1.03 E-04 | 1.65 E-09 | 2.14 E-06 | 1.81 E-06 |
| 581147 | Eu-154 | 4.69 E-06 | 7.54 E-11 | 3.04 E-07 | 1.14 E-07 |
| 581147 | Eu-155 | 1.12 E-07 | 1.80 E-12 | 2.34 E-09 | 1.98 E-09 |
| 581147 | H-3 | 1.20 E-05 | 3.22 E-08 | 4.18 E-05 | 3.54 E-05 |
| 581147 | Pu-238 | 2.70 E-13 | 1.45 E-21 | 1.88 E-18 | 1.59 E-18 |
| 581147 | Pu-239 | 1.29 E-07 | 6.90 E-16 | 8.97 E-13 | 7.59 E-13 |
| 581147 | Pu-240 | 1.47 E-09 | 7.88 E-18 | 1.02 E-14 | 8.67 E-15 |
| 581147 | Sr-90 | 8.24 E-03 | 1.77 E-08 | 2.30 E-05 | 1.94 E-05 |
| 581147 | U-235 | 1.36 E-09 | 7.27 E-16 | 9.45 E-13 | 7.99 E-13 |
| 581147 | U-238 | 9.31 E-08 | 4.99 E-14 | 6.49 E-11 | 5.49 E-11 |

*Table C-14. Estimated Radiation Dose, Total by Cell, Reactors on the River.*

| Cell ID | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk |
| 564143 | 8.20 E-03 | 2.09 E-05 | 2.72 E-02 | 2.30 E-02 |
| 565143 | 5.60 E-04 | 3.56 E-07 | 4.94 E-04 | 3.96 E-04 |
| 565144 | 5.16 E+00 | 1.27 E-02 | 1.66 E+01 | 1.40 E+01 |
| 565145 | 3.06 E-03 | 5.95 E-07 | 1.88 E-03 | 7.96 E-04 |
| 568146 | 4.31 E-01 | 1.15 E-03 | 1.50 E+00 | 1.27 E+00 |
| 569146 | 4.98 E-01 | 1.13 E-03 | 1.47 E+00 | 1.24 E+00 |
| 569147 | 2.57 E-03 | 1.68 E-07 | 2.45 E-04 | 1.88 E-04 |
| 571149 | 1.51 E+00 | 1.49 E-05 | 2.06 E-02 | 1.65 E-02 |
| 572150 | 2.83 E-04 | 4.76 E-08 | 6.98 E-05 | 5.34 E-05 |
| 573150 | 9.55 E-06 | 6.22 E-10 | 5.32 E-06 | 1.26 E-06 |
| 573151 | 4.73 E-02 | 3.69 E-07 | 8.54 E-04 | 4.53 E-04 |
| 573152 | 1.20 E-03 | 6.41 E-08 | 1.15 E-04 | 7.46 E-05 |
| 574152 | 2.30 E-03 | 1.23 E-07 | 2.21 E-04 | 1.44 E-04 |
| 577152 | 8.88 E-04 | 6.34 E-08 | 1.04 E-04 | 7.25 E-05 |
| 578152 | 2.45 E-03 | 1.70 E-08 | 3.33 E-05 | 2.02 E-05 |
| 579147 | 1.71 E-05 | 1.12 E-09 | 9.54 E-06 | 2.26 E-06 |
| 580147 | 1.59 E-01 | 1.52 E-06 | 2.18 E-03 | 1.70 E-03 |
| 581147 | 8.38 E-03 | 5.35 E-08 | 7.26 E-05 | 5.93 E-05 |

*Table C-15. Hazard Index by Chemical by Cell, Central Plateau. (3 sheets)*

| Cell ID | Chemical | Hazard Index | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 565133 | NO3 | | | | |
| 566133 | NO3 | | | | |
| 566134 | NaAl | 2.46 E+00 | 1.21 E+00 | 5.56 E-06 | 9.42 E-08 |
| 566134 | NaOH | | | | |
| 566134 | NH4NO3bm | | | | |
| 566134 | Na | | | | |
| 566134 | HN03 | | | | |
| 566134 | NaCr2 | 5.51 E+00 | 8.51 E-04 | 1.62 E-07 | 7.79 E-06 |
| 566134 | AlFNO3 | 2.55 E+02 | 1.41 E+00 | 6.46 E-06 | 9.76 E-06 |
| 566134 | CCI4 | | | | |
| 566135 | AlFN03 | 6.05 E+02 | 3.24 E+00 | 1.48 E-05 | 2.24 E-05 |
| 566135 | CCl4 | | | | |
| 566135 | TBP | | | | |
| 566135 | NaOH | | | | |
| 566135 | DBBP | | | | |
| 566135 | NH4N03 | | | | |
| 566135 | PO4 | | | | |
| 566135 | Na | | 3.24 E+00 | 1.48 E-05 | 2.24 E-05 |
| 566135 | HNO3 | | | | |
| 566135 | F | 3.03 E+02 | | | |
| 566135 | CaNO3 | | | | |
| 566135 | MgNO3 | | | | |
| 566135 | SO4 | | | | |
| 566135 | AlNO3 | 2.69 E+02 | 1.49 E+00 | 6.81 E-06 | 1.03 E-05 |
| 566135 | FeNO3 | | | | |
| 566135 | NO3 | | | | |
| 566136 | NaSi | | | | |
| 566136 | NaOxal | | | | |
| 566136 | NaAl | 4.31 E+04 | 2.13 E+04 | 9.75 E-02 | 1.65 E-03 |
| 566136 | NaOH | | | | |
| 566136 | NH4NO3 | | | | |
| 566136 | K | | | | |
| 566136 | PO4 | | | | |
| 566136 | Na | | | | |
| 566136 | F | 1.28 E+03 | | | |
| 566136 | SO4 | | | | |
| 566136 | FeCN | | | | |
| 566136 | NO3 | | | | |
| 566136 | NO2 | | | | |
| 567133 | Na | | | | |

*Table C-15. Hazard Index by Chemical by Cell, Central Plateau. (3 sheets)*

| Cell ID | Chemical | Hazard Index | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 567133 | NO3 | | | | |
| 567134 | MIBK | | | | |
| 567134 | NH4NO3 | | | | |
| 567134 | Na | | | | |
| 567134 | HNO3 | | | | |
| 567134 | NaCr2 | 1.29 E+03 | 1.99 E-01 | 3.80 E-05 | 1.82 E-03 |
| 567134 | AlNO3 | 2.62 E+02 | 1.45 E+00 | 6.65 E-06 | 1.01 E-05 |
| 567134 | NO3 | | | | |
| 567135 | NPH | | | | |
| 567135 | TBP | | | | |
| 567135 | PO4 | | | | |
| 567135 | Na | | | | |
| 567135 | SO4 | | | | |
| 567135 | NO3 | | | | |
| 567136 | NaOxal | | | | |
| 567136 | NaOH | | | | |
| 567136 | NH4NO3 | | | | |
| 567136 | K | | | | |
| 567136 | PO4 | | | | |
| 567136 | Na | | | | |
| 567136 | H2SO4 | | | | |
| 567136 | HNO3 | | | | |
| 567136 | F | 3.92 E+04 | | | |
| 567136 | NaCr2 | 4.51 E+00 | 6.96 E-04 | 1.33 E-07 | 6.38 E-06 |
| 567136 | SO4 | | | | |
| 567136 | NO3 | | | | |
| 567137 | NO3 | | | | |
| 573134 | NaOxal | | | | |
| 573134 | PO4 | | | | |
| 573134 | Na | | | | |
| 573134 | SO4 | | | | |
| 573134 | FeCN | | | | |
| 573134 | NO3 | | | | |
| 573136 | Oxalate | | | | |
| 573136 | NH4NO3 | | | | |
| 573136 | K | | | | |
| 573136 | PO4 | | | | |
| 573136 | Na | | | | |
| 573136 | HNO3 | | | | |
| 573136 | F | 8.88 E+02 | | | |

*Table C-15. Hazard Index by Chemical by Cell, Central Plateau. (3 sheets)*

| Cell ID | Chemical | Hazard Index | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 573136 | NaCr2 | 2.20 E+02 | 3.40 E-02 | 6.50 E-06 | 3.12 E-04 |
| 573136 | SO4 | | | | |
| 573136 | AlNO3 | 2.25 E+02 | 1.25 E+00 | 5.72 E-06 | 8.64 E-06 |
| 573136 | NO3 | | | | |
| 573137 | NaSi | | | | |
| 573137 | Oxalate | | | | |
| 573137 | NH4CO3 | | | | |
| 573137 | NaAl | 6.14 E+04 | 3.04 E+04 | 1.39 E-01 | 2.35 E-03 |
| 573137 | NaOH | | | | |
| 573137 | NH4NO3 | | | | |
| 573137 | K | | | | |
| 573137 | PO4 | | | | |
| 573137 | Na | | | | |
| 573137 | H2SO4 | | | | |
| 573137 | F | 1.59 E+03 | | | |
| 573137 | SO4 | | | | |
| 573137 | FeCN | | | | |
| 573137 | NO3 | | | | |
| 573137 | NO2 | | | | |
| 574136 | NPH | | | | |
| 574136 | TBPPH | | | | |
| 574136 | Na | | | | |
| 574136 | HNO3 | | | | |
| 574136 | NO3 | | | | |
| 575135 | NPH | | | | |
| 575135 | TBP | | | | |
| 575135 | NH4NO3 | | | | |
| 575135 | Na | | | | |
| 575135 | NaCr2 | 5.19 E+01 | 8.02 E-03 | 1.53 E-06 | 7.35 E-05 |
| 575135 | SO4 | | | | |
| 575135 | NO3 | | | | |
| 575136 | NPH | | | | |
| 575136 | BP | | | | |
| 575136 | TBP | | | | |
| 575136 | NH4CO3 | | | | |
| 575136 | NO3 | | | | |

NOTE: Blanks indicate no data for NOAELs, transfer factors, or both. See tables on these variables for details.

*Table C-16. Hazard Index Summed by Cell, Central Plateau.*

| Cell ID | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk |
| 565133 | | | | |
| 566133 | | | | |
| 566134 | 2.63 E+02 | 2.62 E+00 | 1.22 E-05 | 1.76 E-05 |
| 566135 | 1.18 E+03 | 7.96 E+00 | 3.65 E-05 | 5.51 E-05 |
| 566136 | 4.44 E+04 | 2.13 E+04 | 9.75 E-02 | 1.65 E-03 |
| 567133 | | | | |
| 567134 | 1.55 E+03 | 1.65 E+00 | 4.46 E-05 | 1.83 E-03 |
| 567135 | | | | |
| 567136 | 3.92 E+04 | 6.96 E-04 | 1.33 E-07 | 6.38 E-06 |
| 567137 | | | | |
| 573134 | | | | |
| 573136 | 1.33 E+03 | 1.28 E+00 | 1.22 E-05 | 3.20 E-04 |
| 573137 | 6.30 E+04 | 3.04 E+04 | 1.39 E-01 | 2.35 E-03 |
| 574136 | | | | |
| 575135 | 5.19 E+01 | 8.02 E-03 | 1.53 E-06 | 7.35 E-05 |
| 575136 | | | | |

NOTES: Blanks indicate no data for NOAELs, transfer factors, or both for constituents of concern in the cell. See chemical-specific table for details.

*Table C-17. Estimated Radiation Dose by Radionuclide by Cell, Central Plateau. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 565133 | Co-60 | 7.79 E-05 | 5.08 E-09 | 4.34 E-05 | 1.03 E-05 |
| 565133 | Cs-137 | 5.21 E-05 | 4.35 E-09 | 1.23 E-05 | 5.66 E-06 |
| 565133 | Pu-240 | 3.15 E-06 | 1.69 E-14 | 2.19 E-11 | 1.86 E-11 |
| 565133 | Ru-106 | 8.68 E-10 | 4.65 E-15 | 6.55 E-12 | 5.19 E-12 |
| 565133 | Sr-90 | 1.26 E-02 | 2.71 E-08 | 3.52 E-05 | 2.98 E-05 |
| 565133 | U-235 | 6.52 E-07 | 3.50 E-13 | 4.54 E-10 | 3.85 E-10 |
| 565134 | Cs-137 | 6.65 E-07 | 5.56 E-11 | 1.57 E-07 | 7.23 E-08 |
| 565134 | H-3 | 1.14 E-03 | 3.06 E-06 | 3.98 E-03 | 3.37 E-03 |
| 565134 | Ru-106 | 7.17 E-18 | 3.85 E-23 | 5.42 E-20 | 4.29 E-20 |
| 565134 | Sr-90 | 6.63 E-05 | 1.42 E-10 | 1.85 E-07 | 1.56 E-07 |
| 566133 | Am-241 | 2.21 E-07 | 1.18 E-14 | 1.54 E-11 | 1.30 E-11 |
| 566133 | Co-60 | 2.77 E-04 | 1.80 E-08 | 1.54 E-04 | 3.66 E-05 |
| 566133 | Cs-134 | 5.90 E-04 | 5.34 E-08 | 3.06 E-04 | 8.99 E-05 |
| 566133 | Cs-137 | 1.52 E-04 | 1.27 E-08 | 3.59 E-05 | 1.65 E-05 |
| 566133 | Pu-239 | 5.52 E-05 | 2.96 E-13 | 3.85 E-10 | 3.26 E-10 |
| 566133 | Pu-240 | 1.64 E-05 | 8.80 E-14 | 1.14 E-10 | 9.68 E-11 |
| 566133 | Ru-106 | 1.31 E-03 | 7.04 E-09 | 9.91 E-06 | 7.85 E-06 |
| 566133 | Sr-90 | 1.89 E-01 | 4.06 E-07 | 5.28 E-04 | 4.47 E-04 |
| 566133 | U-235 | 1.86 E-07 | 9.99 E-14 | 1.30 E-10 | 1.10 E-10 |
| 566134 | Am-241 | 8.29 E-05 | 4.44 E-12 | 5.77 E-09 | 4.88 E-09 |
| 566134 | Co-60 | 2.70 E-02 | 1.76 E-06 | 1.51 E-02 | 3.57 E-03 |
| 566134 | Cs-134 | 4.32 E-02 | 3.91 E-06 | 2.24 E-02 | 6.57 E-03 |
| 566134 | Cs-137 | 4.54 E-02 | 3.79 E-06 | 1.07 E-02 | 4.94 E-03 |
| 566134 | H-3 | 1.74 E-01 | 4.65 E-04 | 6.05 E-01 | 5.12 E-01 |
| 566134 | Pu-239 | 5.19 E-02 | 2.78 E-10 | 3.62 E-07 | 3.06 E-07 |
| 566134 | Pu-240 | 1.59 E-02 | 8.54 E-11 | 1.11 E-07 | 9.39 E-08 |
| 566134 | Ru-106 | 1.23 E-06 | 6.59 E-12 | 9.28 E-09 | 7.35 E-09 |
| 566134 | Sr-90 | 8.88 E+00 | 1.90 E-05 | 2.47 E-02 | 2.09 E-02 |
| 566134 | U-235 | 6.21 E-03 | 3.33 E-09 | 4.33 E-06 | 3.66 E-06 |
| 566135 | Am-241 | 1.35 E-05 | 7.22 E-13 | 9.38 E-10 | 7.94 E-10 |
| 566135 | Co-60 | 3.08 E-02 | 2.00 E-06 | 1.72 E-02 | 4.07 E-03 |
| 566135 | Cs-137 | 2.61 E-02 | 2.18 E-06 | 6.17 E-03 | 2.83 E-03 |
| 566135 | H-3 | 1.59 E-04 | 4.26 E-07 | 5.54 E-04 | 4.69 E-04 |
| 566135 | Pu-238 | 4.08 E-08 | 2.19 E-16 | 2.84 E-13 | 2.41 E-13 |
| 566135 | Pu-239 | 3.62 E-01 | 1.94 E-09 | 2.52 E-06 | 2.13 E-06 |
| 566135 | Pu-240 | 1.08 E-01 | 5.77 E-10 | 7.51 E-07 | 6.35 E-07 |
| 566135 | Pu-241 | 6.50 E-09 | 3.48 E-17 | 5.38 E-14 | 3.83 E-14 |
| 566135 | Ru-106 | 3.72 E-07 | 1.99 E-12 | 2.81 E-09 | 2.22 E-09 |
| 566135 | Sr-90 | 4.15 E+00 | 8.90 E-06 | 1.16 E-02 | 9.80 E-03 |
| 566135 | U-235 | 8.69 E-08 | 4.66 E-14 | 6.05 E-11 | 5.12 E-11 |

*Table C-17. Estimated Radiation Dose by Radionuclide by Cell, Central Plateau. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 566136 | Co-60 | 1.88 E+00 | 1.23 E-04 | 1.05 E+00 | 2.49 E-01 |
| 566136 | Cs-134 | 3.14 E-04 | 2.85 E-08 | 1.63 E-04 | 4.79 E-05 |
| 566136 | Cs-137 | 3.24 E+00 | 2.70 E-04 | 7.66 E-01 | 3.52 E-01 |
| 566136 | Pm-147 | 1.05 E-07 | 1.40 E-12 | 1.82 E-09 | 1.54 E-09 |
| 566136 | Pu-239 | 1.30 E-02 | 6.96 E-11 | 9.05 E-08 | 7.66 E-08 |
| 566136 | Pu-240 | 2.55 E-03 | 1.37 E-11 | 1.78 E-08 | 1.51 E-08 |
| 566136 | Ru-106 | 7.44 E-07 | 3.99 E-12 | 5.62 E-09 | 4.45 E-09 |
| 566136 | Sr-90 | 7.40 E+00 | 1.59 E-05 | 2.06 E-02 | 1.75 E-02 |
| 566136 | Th-232 | 4.78 E-05 | 6.40 E-10 | 8.33 E-07 | 7.04 E-07 |
| 566136 | U-235 | 8.58 E-04 | 4.60 E-10 | 5.98 E-07 | 5.06 E-07 |
| 566137 | Cs-137 | 1.94 E-05 | 1.62 E-09 | 4.58 E-06 | 2.11 E-06 |
| 566137 | Sr-90 | 1.70 E-03 | 3.63 E-09 | 4.72 E-06 | 4.00 E-06 |
| 567133 | Co-60 | 2.35 E-03 | 1.53 E-07 | 1.31 E-03 | 3.11 E-04 |
| 567133 | Cs-137 | 2.81 E-03 | 2.35 E-07 | 6.65 E-04 | 3.06 E-04 |
| 567133 | H-3 | 6.30 E-06 | 1.69 E-08 | 2.19 E-05 | 1.86 E-05 |
| 567133 | Pu-239 | 1.41 E-04 | 7.57 E-13 | 9.84 E-10 | 8.32 E-10 |
| 567133 | Pu-240 | 4.19 E-05 | 2.25 E-13 | 2.92 E-10 | 2.47 E-10 |
| 567133 | Ru-106 | 1.39 E-09 | 7.43 E-15 | 1.05 E-11 | 8.28 E-12 |
| 567133 | Sr-90 | 1.83 E-01 | 3.92 E-07 | 5.09 E-04 | 4.31 E-04 |
| 567133 | U-235 | 2.77 E-07 | 1.48 E-13 | 1.93 E-10 | 1.63 E-10 |
| 567134 | Am-241 | 9.38 E-08 | 5.03 E-15 | 6.54 E-12 | 5.53 E-12 |
| 567134 | Co-60 | 8.60 E-02 | 5.60 E-06 | 4.80 E-02 | 1.14 E-02 |
| 567134 | Cs-137 | 4.77 E-02 | 3.98 E-06 | 1.13 E-02 | 5.19 E-03 |
| 567134 | H-3 | 1.44 E-07 | 3.86 E-10 | 5.01 E-07 | 4.24 E-07 |
| 567134 | Pu-239 | 4.95 E-04 | 2.66 E-12 | 3.45 E-09 | 2.92 E-09 |
| 567134 | Pu-240 | 1.47 E-04 | 7.88 E-13 | 1.02 E-09 | 8.67 E-10 |
| 567134 | Ru-106 | 1.33 E-06 | 7.13 E-12 | 1.00 E-08 | 7.95 E-09 |
| 567134 | Sr-90 | 1.53 E+01 | 3.27 E-05 | 4.25 E-02 | 3.60 E-02 |
| 567134 | U-235 | 5.49 E-05 | 2.94 E-11 | 3.82 E-08 | 3.23 E-08 |
| 567134 | U-238 | 9.83 E-07 | 5.27 E-13 | 6.85 E-10 | 5.79 E-10 |
| 567135 | Cs-134 | 1.93 E-02 | 1.75 E-06 | 1.00 E-02 | 2.94 E-03 |
| 567135 | Sr-90 | 1.16 E-01 | 2.48 E-07 | 3.23 E-04 | 2.73 E-04 |
| 567136 | Co-60 | 6.12 E-02 | 3.99 E-06 | 3.41 E-02 | 8.09 E-03 |
| 567136 | Cs-137 | 7.49 E-01 | 6.26 E-05 | 1.77 E-01 | 8.14 E-02 |
| 567136 | Pu-239 | 1.43 E+00 | 7.66 E-09 | 9.96 E-06 | 8.43 E-06 |
| 567136 | Pu-240 | 4.26 E-01 | 2.28 E-09 | 2.97 E-06 | 2.51 E-06 |
| 567136 | Sr-90 | 1.08 E+02 | 2.31 E-04 | 3.00 E-01 | 2.54 E-01 |
| 567136 | U-235 | 4.07 E-05 | 2.18 E-11 | 2.84 E-08 | 2.40 E-08 |
| 567137 | Cs-137 | 9.76 E-03 | 8.15 E-07 | 2.31 E-03 | 1.06 E-03 |
| 567137 | Ru-106 | 8.35 E-08 | 4.47 E-13 | 6.30 E-10 | 4.99 E-10 |

*Table C-17. Estimated Radiation Dose by Radionuclide by Cell, Central Plateau. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 567137 | Sr-90 | 1.79 E+00 | 3.84 E-06 | 4.99 E-03 | 4.22 E-03 |
| 569140 | Cs-137 | 2.11 E-03 | 1.76 E-07 | 5.00 E-04 | 2.30 E-04 |
| 569140 | Ru-106 | 6.55 E-13 | 3.51 E-18 | 4.94 E-15 | 3.91 E-15 |
| 569140 | Sr-90 | 6.38 E-02 | 1.37 E-07 | 1.78 E-04 | 1.50 E-04 |
| 570140 | Cs-137 | 1.34 E-03 | 1.12 E-07 | 3.18 E-04 | 1.46 E-04 |
| 570140 | Pu-239 | 1.32 E-07 | 7.07 E-16 | 9.20 E-13 | 7.78 E-13 |
| 570140 | Ru-106 | 5.41 E-13 | 2.90 E-18 | 4.08 E-15 | 3.23 E-15 |
| 570140 | Sr-90 | 4.08 E-02 | 8.74 E-08 | 1.14 E-04 | 9.62 E-05 |
| 570140 | U-235 | 1.30 E-08 | 6.97 E-15 | 9.07 E-12 | 7.67 E-12 |
| 571140 | Cs-137 | 1.34 E-03 | 1.12 E-07 | 3.18 E-04 | 1.46 E-04 |
| 571140 | Pu-239 | 5.16 E-07 | 2.77 E-15 | 3.59 E-12 | 3.04 E-12 |
| 571140 | Pu-240 | 1.53 E-07 | 8.22 E-16 | 1.07 E-12 | 9.04 E-13 |
| 571140 | Ru-106 | 5.41 E-13 | 2.90 E-18 | 4.08 E-15 | 3.23 E-15 |
| 571140 | Sr-90 | 4.08 E-02 | 8.74 E-08 | 1.14 E-04 | 9.62 E-05 |
| 571140 | U-235 | 1.68 E-08 | 9.01 E-15 | 1.17 E-11 | 9.91 E-12 |
| 573134 | Co-60 | 2.97 E-01 | 1.93 E-05 | 1.65 E-01 | 3.92 E-02 |
| 573134 | Cs-137 | 4.34 E-01 | 3.62 E-05 | 1.03 E-01 | 4.72 E-02 |
| 573134 | Pu-239 | 5.16 E-03 | 2.77 E-11 | 3.59 E-08 | 3.04 E-08 |
| 573134 | Pu-240 | 1.53 E-03 | 8.22 E-12 | 1.07 E-08 | 9.04 E-09 |
| 573134 | Ru-106 | 1.04 E-07 | 5.59 E-13 | 7.88 E-10 | 6.24 E-10 |
| 573134 | Sr-90 | 3.58 E+01 | 7.68 E-05 | 9.99 E-02 | 8.45 E-02 |
| 573134 | U-235 | 3.27 E-05 | 1.75 E-11 | 2.28 E-08 | 1.93 E-08 |
| 573134 | U-238 | 1.81 E-05 | 9.71 E-12 | 1.26 E-08 | 1.07 E-08 |
| 573136 | Am-241 | 3.47 E-06 | 1.86 E-13 | 2.42 E-10 | 2.05 E-10 |
| 573136 | Co-60 | 1.41 E-02 | 9.22 E-07 | 7.89 E-03 | 1.87 E-03 |
| 573136 | Cs-137 | 3.18 E-02 | 2.66 E-06 | 7.53 E-03 | 3.46 E-03 |
| 573136 | H-3 | 2.61 E-03 | 6.98 E-06 | 9.08 E-03 | 7.68 E-03 |
| 573136 | Po-210 | 1.69 E-01 | 9.08 E-10 | 1.18 E-06 | 9.98 E-07 |
| 573136 | Pu-239 | 9.81 E-03 | 5.26 E-11 | 6.84 E-08 | 5.79 E-08 |
| 573136 | Pu-240 | | | | |
| 573136 | Re-187 | | | | |
| 573136 | Ru-106 | 4.32 E-05 | 2.32 E-10 | 3.26 E-07 | 2.58 E-07 |
| 573136 | Sn-123M | 1.92 E+00 | 4.12 E-06 | 5.36 E-03 | 4.54 E-03 |
| 573136 | Sr-90 | 6.60 E-05 | 3.54 E-11 | 4.60 E-08 | 3.89 E-08 |
| 573136 | U-234 | | | | |
| 573136 | U-235 | 5.36 E-05 | 2.87 E-11 | 3.73 E-08 | 3.16 E-08 |
| 573136 | U-238 | 8.91 E-05 | 4.77 E-11 | 6.21 E-08 | 5.25 E-08 |
| 573137 | Cs-134 | 2.94 E-04 | 2.66 E-08 | 1.52 E-04 | 4.47 E-05 |
| 573137 | Cs-137 | 8.39 E-01 | 7.01 E-05 | 1.99 E-01 | 9.13 E-02 |
| 573137 | Pu-239 | 5.98 E-02 | 3.21 E-10 | 4.17 E-07 | 3.53 E-07 |

*Table C-17. Estimated Radiation Dose by Radionuclide by Cell, Central Plateau. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 573137 | Ru-106 | 6.14 E-08 | 3.29 E-13 | 4.63 E-10 | 3.67 E-10 |
| 573137 | Sr-90 | 7.64 E+01 | 1.64 E-04 | 2.13 E-01 | 1.80 E-01 |
| 573137 | U-238 | 4.72 E-05 | 2.53 E-11 | 3.29 E-08 | 2.78 E-08 |
| 574135 | Am-241 | 7.49 E-07 | 4.02 E-14 | 5.22 E-11 | 4.42 E-11 |
| 574135 | Co-60 | 2.47 E-04 | 1.61 E-08 | 1.38 E-04 | 3.26 E-05 |
| 574135 | Cs-137 | 1.82 E-04 | 1.52 E-08 | 4.31 E-05 | 1.98 E-05 |
| 574135 | H-3 | 9.44 E-02 | 2.53 E-04 | 3.29 E-01 | 2.78 E-01 |
| 574135 | I-129 | 2.27 E-06 | 1.27 E-11 | 2.29 E-08 | 1.54 E-08 |
| 574135 | Pm-147 | 1.70 E-08 | 2.28 E-13 | 2.96 E-10 | 2.51 E-10 |
| 574135 | Pu-238 | 6.38 E-08 | 3.42 E-16 | 4.45 E-13 | 3.76 E-13 |
| 574135 | Pu-239 | 1.38 E-05 | 7.37 E-14 | 9.59 E-11 | 8.11 E-11 |
| 574135 | Pu-240 | 5.16 E-06 | 2.77 E-14 | 3.59 E-11 | 3.04 E-11 |
| 574135 | Pu-241 | 7.96 E-09 | 4.27 E-17 | 6.60 E-14 | 4.70 E-14 |
| 574135 | Ru-106 | 7.81 E-05 | 4.19 E-10 | 5.90 E-07 | 4.67 E-07 |
| 574135 | Sr-90 | 3.02 E-02 | 6.47 E-08 | 8.41 E-05 | 7.12 E-05 |
| 574135 | U-235 | 6.56 E-08 | 3.51 E-14 | 4.57 E-11 | 3.87 E-11 |
| 574136 | Cs-137 | 2.39 E-04 | 1.99 E-08 | 5.65 E-05 | 2.59 E-05 |
| 574136 | Eu-154 | 7.65 E-12 | 1.23 E-16 | 4.96 E-13 | 1.86 E-13 |
| 574136 | Pu-239 | 3.19 E-04 | 1.71 E-12 | 2.22 E-09 | 1.88 E-09 |
| 574136 | Ru-106 | 3.43 E-08 | 1.84 E-13 | 2.59 E-10 | 2.05 E-10 |
| 574136 | Sr-90 | 6.23 E+03 | 1.34 E-02 | 1.74 E+01 | 1.47 E+01 |
| 574136 | U-235 | 3.18 E-01 | 1.71 E-07 | 2.22 E-04 | 1.88 E-04 |
| 574136 | U-238 | 1.64 E-05 | 8.77 E-12 | 1.14 E-08 | 9.65 E-09 |
| 574139 | Am-241 | 1.13 E-10 | 6.04 E-18 | 7.85 E-15 | 6.64 E-15 |
| 574139 | Cs-137 | 5.69 E-04 | 4.75 E-08 | 1.35 E-04 | 6.18 E-05 |
| 574139 | H-3 | 2.39 E-04 | 6.41 E-07 | 8.33 E-04 | 7.05 E-04 |
| 574139 | Pm-147 | 1.73 E-08 | 2.31 E-13 | 3.01 E-10 | 2.55 E-10 |
| 574139 | Pu-239 | 4.63 E-06 | 2.48 E-14 | 3.23 E-11 | 2.73 E-11 |
| 574139 | Ru-106 | 9.01 E-09 | 4.83 E-14 | 6.80 E-11 | 5.39 E-11 |
| 574139 | Sr-90 | 2.07 E-02 | 4.43 E-08 | 5.76 E-05 | 4.88 E-05 |
| 574139 | U-235 | 7.55 E-07 | 4.05 E-13 | 5.26 E-10 | 4.45 E-10 |
| 575135 | Am-241 | 8.37 E-06 | 4.48 E-13 | 5.83 E-10 | 4.93 E-10 |
| 575135 | Co-60 | 7.47 E-01 | 4.87 E-05 | 4.16 E-01 | 9.87 E-02 |
| 575135 | Cs-137 | 5.75 E-01 | 4.80 E-05 | 1.36 E-01 | 6.25 E-02 |
| 575135 | H-3 | 1.50 E-01 | 4.01 E-04 | 5.21 E-01 | 4.41 E-01 |
| 575135 | I-129 | 7.09 E-06 | 3.97 E-11 | 7.16 E-08 | 4.82 E-08 |
| 575135 | Pm-147 | 4.31 E-06 | 5.78 E-11 | 7.51 E-08 | 6.36 E-08 |
| 575135 | Pu-239 | 9.03 E-04 | 4.84 E-12 | 6.29 E-09 | 5.32 E-09 |
| 575135 | Pu-240 | 2.67 E-04 | 1.43 E-12 | 1.86 E-09 | 1.58 E-09 |
| 575135 | Pu-241 | 4.18 E-09 | 2.24 E-17 | 3.46 E-14 | 2.46 E-14 |

*Table C-17. Estimated Radiation Dose by Radionuclide by Cell, Central Plateau. (5 sheets)*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 575135 | Ru-106 | 3.19 E-02 | 1.71 E-07 | 2.41 E-04 | 1.91 E-04 |
| 575135 | Sn-113 | 1.07 E+02 | 2.30 E-04 | 2.99 E-01 | 2.53 E-01 |
| 575135 | Sr-90 | 3.55 E-02 | 1.90 E-08 | 2.47 E-05 | 2.09 E-05 |
| 575135 | U-235 | 9.63 E-04 | 6.41 E-08 | 5.83 E-04 | 1.36 E-04 |
| 575136 | Co-58 | | | | |
| 575136 | Co-60 | 1.07 E-05 | 6.96 E-10 | 5.96 E-06 | 1.41 E-06 |
| 575136 | Cs-137 | 5.90 E-03 | 4.93 E-07 | 1.40 E-03 | 6.42 E-04 |
| 575136 | H-3 | 8.83 E-06 | 2.37 E-08 | 3.08 E-05 | 2.60 E-05 |
| 575136 | Pu-239 | 1.42 E-04 | 7.63 E-13 | 9.92 E-10 | 8.40 E-10 |
| 575136 | Pu-240 | 3.88 E-07 | 2.08 E-15 | 2.71 E-12 | 2.29 E-12 |
| 575136 | Ru-106 | 5.94 E-08 | 3.19 E-13 | 4.49 E-10 | 3.55 E-10 |
| 575136 | Sr-90 | 9.42 E-02 | 2.02 E-07 | 2.63 E-04 | 2.22 E-04 |
| 575136 | U-235 | 3.81 E-06 | 2.04 E-12 | 2.66 E-09 | 2.25 E-09 |
| 575136 | U-238 | 4.10 E-07 | 2.20 E-13 | 2.86 E-10 | 2.42 E-10 |
| 575137 | Cs-137 | 4.25 E-07 | 3.55 E-11 | 1.01 E-07 | 4.62 E-08 |
| 575137 | Sr-90 | 6.13 E-05 | 1.32 E-10 | 1.71 E-07 | 1.45 E-07 |

NOTE: Blanks indicate data on effective energy of decay not located.

*Table C-18. Estimated Radiation Dose, Total by Cell, Central Plateau.*

| Cell ID | Estimated Total Dose (rad/d) | | | |
|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk |
| 565133 | 1.28 E-02 | 3.65 E-08 | 9.10 E-05 | 4.58 E-05 |
| 565134 | 1.21 E-03 | 3.06 E-06 | 3.98 E-03 | 3.37 E-03 |
| 566133 | 1.92 E-01 | 4.97 E-07 | 1.03 E-03 | 5.98 E-04 |
| 566134 | 9.24 E+00 | 4.94 E-04 | 6.78 E-01 | 5.48 E-01 |
| 566135 | 4.68 E+00 | 1.35 E-05 | 3.55 E-02 | 1.72 E-02 |
| 566136 | 1.25 E+01 | 4.09 E-04 | 1.84 E+00 | 6.18 E-01 |
| 566137 | 1.71 E-03 | 5.25 E-09 | 9.31 E-06 | 6.10 E-06 |
| 567133 | 1.88 E-01 | 7.97 E-07 | 2.51 E-03 | 1.07 E-03 |
| 567134 | 1.54 E+01 | 4.23 E-05 | 1.02 E-01 | 5.25 E-02 |
| 567135 | 1.35 E-01 | 2.00 E-06 | 1.03 E-02 | 3.22 E-03 |
| 567136 | 1.10 E+02 | 2.97 E-04 | 5.12 E-01 | 3.43 E-01 |
| 567137 | 1.80 E+00 | 4.65 E-06 | 7.30 E-03 | 5.28 E-03 |
| 569140 | 6.59 E-02 | 3.13 E-07 | 6.78 E-04 | 3.80 E-04 |
| 570140 | 4.21 E-02 | 2.00 E-07 | 4.32 E-04 | 2.42 E-04 |
| 571140 | 4.21 E-02 | 2.00 E-07 | 4.32 E-04 | 2.42 E-04 |
| 573134 | 3.66 E+01 | 1.32 E-04 | 3.68 E-01 | 1.71 E-01 |
| 573136 | 2.15 E+00 | 1.47 E-05 | 2.99 E-02 | 1.75 E-02 |
| 573137 | 7.73 E+01 | 2.34 E-04 | 4.12 E-01 | 2.71 E-01 |
| 574135 | 1.25 E-01 | 2.53 E-04 | 3.29 E-01 | 2.78 E-01 |
| 574136 | 6.23 E+03 | 1.34 E-02 | 1.74 E+01 | 1.47 E+01 |
| 574139 | 2.15 E-02 | 7.33 E-07 | 1.03 E-03 | 8.15 E-04 |
| 575135 | 1.09 E+02 | 7.28 E-04 | 1.37 E+00 | 8.56 E-01 |
| 575136 | 1.01 E-01 | 7.83 E-07 | 2.28 E-03 | 1.03 E-03 |
| 575137 | 6.18 E-05 | 1.67 E-10 | 2.72 E-07 | 1.91 E-07 |

*Table C-19. Hazard Index by Chemical by Cell, All Other Areas.*

| Cell ID | Chemical | Hazard Index | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 591122 | MIBK | | | | |
| 591122 | U | | 2.11 E-01 | 9.68 E-07 | 9.68 E-07 |
| 591122 | NO3 | | | | |
| 594115 | PbII | 6.38 E-01 | 1.92 E+00 | 2.34 E-06 | 2.34 E-06 |
| 594115 | Hg | 1.77 E+00 | 2.02 E-01 | 6.18 E-05 | 6.18 E-05 |
| 594115 | NiII | 6.38 E+00 | 4.04 E-02 | 1.86 E-06 | 1.86 E-06 |
| 594115 | AgI | 5.82 E+00 | 3.35 E+01 | 2.05 E-04 | 2.05 E-04 |
| 594115 | Be | 5.32 E-02 | 1.51 E-04 | 2.77 E-09 | 2.77 E-09 |
| 594115 | CdII | 5.32 E-01 | 1.25 E-01 | 1.53 E-07 | 1.53 E-07 |
| 594115 | CrVI | 2.66 E+01 | 4.11 E-03 | 7.84 E-07 | 7.84 E-07 |
| 594115 | CuII | 2.66 E+01 | 1.52 E+03 | 4.17 E-02 | 4.17 E-02 |
| 594115 | U | | 7.95 E-03 | 3.65 E-08 | 3.65 E-08 |
| 594115 | ZnII | 2.66 E+00 | 9.74 E-01 | 2.24 E-03 | 2.24 E-03 |
| 594115 | F | 5.32 E-01 | | | |

NOTE: Blanks indicate no data for NOAELs, transfer factors, or both. See tables on these variables for details.

*Table C-20. Hazard Index Summed by Cell, All Other Areas.*

| Cell ID | Hazard Index | | | |
|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk |
| 591122 | | 2.11 E-01 | 9.68 E-07 | 1.87 E-07 |
| 594115 | 7.16 E+01 | 1.55 E+03 | 4.42 E-02 | 4.42 E-02 |

NOT E: Blanks indicate no data for NOAELs, transfer factors, or both for constituents of concern in the cell. See chemical-specific table for details.

*Table C-21. Estimated Radiation Dose by Radionuclide by Cell, All Other Areas.*

| Cell ID | Radionuclide | Estimated Dose (rad/d) | | | |
|---|---|---|---|---|---|
| | | Plant | Mouse | Coyote | Hawk |
| 589127 | Co-60 | 2.62 E-05 | 1.70 E-09 | 1.46 E-05 | 3.46 E-06 |
| 590121 | Co-60 | 1.30 E-05 | 8.44 E-10 | 7.22 E-06 | 1.71 E-06 |
| 590121 | Pu-239 | 2.39 E-06 | 1.28 E-14 | 1.66 E-11 | 1.41 E-11 |
| 590121 | U-235 | 8.01 E-12 | 4.29 E-18 | 5.58 E-15 | 4.72 E-15 |
| 590121 | U-238 | 8.06 E-14 | 4.32 E-20 | 5.62 E-17 | 4.75 E-17 |
| 592116 | Co-60 | 5.59 E-11 | 3.64 E-15 | 3.12 E-11 | 7.39 E-12 |
| 592116 | Th-232 | 5.08 E-03 | 6.81 E-08 | 8.85 E-05 | 7.49 E-05 |
| 592116 | U-235 | 4.64 E-06 | 2.49 E-12 | 3.23 E-09 | 2.74 E-09 |
| 592116 | U-238 | 9.31 E-05 | 4.99 E-11 | 6.49 E-08 | 5.49 E-08 |
| 593116 | Co-60 | 5.41 E-11 | 3.53 E-15 | 3.02 E-11 | 7.15 E-12 |
| 593116 | U-235 | 9.31 E-07 | 4.99 E-13 | 6.49 E-10 | 5.49 E-10 |
| 593116 | U-238 | 1.86 E-05 | 9.98 E-12 | 1.30 E-08 | 1.10 E-08 |
| 594116 | Co-60 | 4.77 E-05 | 3.11 E-09 | 2.66 E-05 | 6.30 E-06 |
| 594116 | Cs-137 | 3.98 E-03 | 3.32 E-07 | 9.41 E-04 | 4.32 E-04 |
| 594116 | Pu-239 | 1.43 E-07 | 7.68 E-16 | 9.98 E-13 | 8.45 E-13 |
| 594116 | Pu-240 | 1.32 E-08 | 7.09 E-17 | 9.22 E-14 | 7.80 E-14 |
| 594116 | U-235 | 3.34 E-09 | 1.79 E-15 | 2.33 E-12 | 1.97 E-12 |
| 594116 | U-238 | 6.73 E-08 | 3.61 E-14 | 4.69 E-11 | 3.97 E-11 |

*Table C-22. Estimated Radiation Dose, Total by Cell, All Other Areas.*

| Cell ID | Estimated Total Dose (rad/d) | | | |
|---|---|---|---|---|
| | Plant | Mouse | Coyote | Hawk |
| 589127 | 2.62 E-05 | 1.70 E-09 | 1.46 E-05 | 3.46 E-06 |
| 590121 | 1.53 E-05 | 8.44 E-10 | 7.22 E-06 | 1.71 E-06 |
| 592116 | 5.18 E-03 | 6.82 E-08 | 8.86 E-05 | 7.50 E-05 |
| 593116 | 1.95 E-05 | 1.05 E-11 | 1.37 E-08 | 1.15 E-08 |
| 594116 | 4.02 E-03 | 3.35 E-07 | 9.68 E-04 | 4.39 E-04 |

*Table C-23. Estimated Radiation Doses to Aquatic Organisms.*

| Site | Estimated Dose (rad/d) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Plant | | Invertebrate | | Fish | | Muskrat | |
| | Mean | Maximum | Mean | Maximum | Mean | Maximum | Mean | Maximum |
| 100-N Springs | 5.73 E-03 | 4.19 E-03 | 1.18 E-03 | 9.43 E-04 | 3.79 E-05 | 4.95 E-05 | 5.92 E-03 | 1.81 E-02 |
| 216-B-3 | 1.92 E-04 | 7.20 E-02 | 7.55 E-05 | 9.51 E-03 | 2.87 E-06 | 2.54 E-02 | 1.55 E-06 | 5.01 E-03 |
| 216-N-8 | 1.24 E-04 | 1.21 E-03 | 9.20 E-05 | 1.74 E-03 | 1.03 E-05 | 7.68 E-05 | 2.11 E-04 | 2.86 E-04 |
| 400 FFTF | 4.97 E-04 | 2.29 E-03 | 1.95 E-04 | 7.18 E-04 | 2.78 E-05 | 9.20 E-05 | 2.63 E-05 | 8.40 E-05 |
| Columbia River | 7.04 E-04 | 9.51 E-04 | 7.84 E-05 | 2.81 E-04 | 8.32 E-06 | 1.96 E-05 | 1.42 E-06 | 1.26 E-05 |

## *Appendix C References*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# Appendix D

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# D.0 Groundwater Strategy and Preliminary Conceptual Design

This Appendix presents a groundwater strategy and preliminary conceptual design for the groundwater remediation systems identified in Section 3.2. The groundwater strategy and preliminary conceptual design are based on a desired future land use objective for a given geographic area. The geographic areas considered in this analysis are Reactors on the River, Central Plateau, and All Other Areas. Table D-1 is a summary of the groundwater strategy used in this Environmental Impact Statement (EIS).

## D.1 Scope

As shown in Table D-1, four groundwater strategies were used to develop a preliminary conceptual design for groundwater remediation at the Hanford Site. The four alternatives were assessed in a preliminary conceptual manner using available data and information on contaminant plumes, hydrogeologic properties, and previous similar assessments at the Hanford Site (PNL 1995).

For the Reactors on the River area, the general objective is to protect the river from further impacts as a result of contaminated groundwater plumes in the vicinity of the Reactors on the River geographic area. The remediation goal for the Unrestricted Use Alternative (Table D-1) assumes unrestricted use of the groundwater. Achieving this goal would require pumping and treating contaminated groundwater plumes to levels that would not preclude any human use. The remediation goal for the Restricted Use Alternatives in the Reactors on the River geographic area (R1 and R2) assumes restricted use of groundwater, meaning that certain uses of groundwater could occur at some time in the future but not in the near term. This alternative requires that contaminated groundwater plumes be remediated to levels protective of the Columbia River.

For the Central Plateau, which includes the 200-West and 200-East areas and immediately adjacent portions of the 600 Area, one Exclusive Use Alternative is assessed (Table D-1). The Exclusive Use Alternative assumes no groundwater use indefinitely but protects downgradient areas using pump-and-treat technologies. This strategy will be refined through the CERCLA process and will be based on land use decisions made in the Reactors on the River geographic area. For example, if unrestricted land use is designated for the Reactors on the River geographic area, contaminated groundwater originating in the Central Plateau geographic area would need to be remediated to levels such that when the contaminant plume reaches the boundaries of the Reactors on the River geographic area, no human use would be precluded. However, if restricted land use is designated for the Reactors on the River geographic area, contaminated groundwater originating in the Central Plateau geographic area would need to be remediated to levels protective of the Columbia River.

For All Other Areas (300, 400, and 600 Areas), a Restricted Use Alternative (R1 and R2) is assessed. The Restricted Use Alternative (R1 and R2) assumes no near-term groundwater use but employs pump-and-treat technologies to protect the river (similar to Reactors on the River Restricted Use Alternative, R1 and R2). This strategy will be refined through the CERCLA process and will be based on land use decisions made in the Reactors on the River geographic area as described above.

*Table D-1. Summary of Groundwater Remediation Strategy and Conceptual Design.*

| Cleanup Scenario (Applicable Geographic Area) | Groundwater Remediation Objectives | Exposure Scenario | Means to Accomplish Groundwater Objectives |
|---|---|---|---|
| Unrestricted<br><br>Columbia River and Reactors on the River | Contamination does not preclude any human uses. However, access or certain uses may be prohibited for other reasons (e.g., physical hazards, cultural resource protection, habitat protection). | Agricultural | • Extensive excavation of past-practice waste units and TSD facilities to reduce sources of contamination<br>• Pumping and treating groundwater plumes to levels acceptable under the agricultural exposure scenario<br>• Monitoring natural attenuation of contaminated groundwater plumes<br>• Maintaining institutional controls prohibiting groundwater use until such a time that groundwater sampling results indicate contaminant levels would not preclude any human use |
| Restricted (R1)<br><br>Reactors on the River and All Other Areas | Residual contamination precludes some human uses. Restrictions could apply to the surface soils, subsurface soils, surface water, or groundwater. | Recreational and Industrial | • Extensive excavation of past-practice waste units and TSD facilities to reduce sources of contamination<br>• Pumping and treating groundwater plumes to levels acceptable under the recreational or industrial exposure scenarios as well as to levels protective of the Columbia River and its ecosystems<br>• Monitoring natural attenuation of contaminated groundwater plumes<br>• Maintaining institutional controls prohibiting groundwater use until such a time that groundwater sampling results indicate contaminant levels would not preclude any human use. |
| Restricted (R2)<br><br>Reactors on the River and All Other Areas | Residual contamination precludes some human uses. Restrictions could apply to the surface soils, subsurface soils, surface water, or groundwater. | Recreational and Industrial | • Pumping and treating groundwater plumes to levels acceptable under the recreational or industrial exposure scenarios as well as to levels protective of the Columbia River and its ecosystems<br>• Monitoring natural attenuation of contaminated groundwater plumes<br>• Maintaining institutional controls prohibiting groundwater use until such a time that groundwater sampling results indicate contaminant levels would not preclude any human use. |
| Exclusive<br><br>Central Plateau | Potential health risks limit uses and require strict controls on access. Use of the area would be limited specifically to the management and/or disposal of radioactive and hazardous materials, and control of the area would be maintained by DOE. Exclusive use areas could include buffer zones around active facilities. | Industrial | • Pumping and treating localized groundwater plumes to levels acceptable under the industrial use scenario<br>• Pumping and treating high concentration core areas of existing plumes which have migrated outside the central plateau<br>• Monitoring natural attenuation of contaminated groundwater plumes<br>• Maintaining institutional controls prohibiting groundwater use for an indefinite period |

For purposes of this groundwater remediation preliminary conceptual design, the specific type of plume control or remediation technology would depend on the cleanup levels required to achieve a specific unrestricted, restricted, or exclusive land use, and would be refined through the CERCLA process. Cleanup levels for groundwater assumed that, for unrestricted use (either near-term or long-term), U.S. Environmental Protection Agency (EPA) drinking water standards (DWS) or Washington State Water Quality Standards (WQS), whichever were lower, would be used. For protection of the Columbia River, discharge concentrations also would meet DWS or WQS, whichever were lower. These standards and associated concentrations, along with the maximum known concentrations for contaminants of concern at the plumes in the various geographic areas, are summarized in Table D-2 ( PNL 1995).

## *D.2 Methodology*

As stated previously, the purpose of the HRA-EIS is to present the assessment of the environmental impacts associated with Hanford Site remediation activities that would likely occur in order to achieve a desired future land use alternative. Clearly, the remediation of groundwater contamination is a pertinent aspect of this assessment.

While interim and final groundwater remediation technology selection and design will be performed during the CERCLA process, effective and reasonable remediation alternatives must be evaluated as part of this EIS. The technology selected for evaluation here is pump-and-treat. Pump-and-treat has been selected because:

1. It is a well established, often-used technology.

2. It is a proven, effective technology.

3. It is the proposed technology for several CERCLA Interim Remedial Actions at the Hanford Site.

### *D.2.1 Pump-and-Treat Technology*

Pump-and-treat technology refers to the selective removal of contaminated groundwater from an aquifer, followed by treatment to remove contaminants consistent with established remedial action objectives. Commonly applied treatment technologies are ion exchange, reverse osmosis and granular activated carbon. A discussion of treatment technologies is provided in Section D.4. Treated groundwater is either injected back into the aquifer, often to enhance contaminant plume hydraulic control, or released directly into a body of surface water. The practice of reinfecting treated groundwater into the aquifer is common at the Hanford Site. However, for the sake of conservatism, these analyses focus on the discharge to a body of surface water, rather than reinjection. Residual materials from these treatment processes are handled and disposed as radioactive, hazardous or mixed waste in accordance with applicable regulations.

In general, pump-and-treat technology involves selective placement of groundwater extraction wells and construction of piping manifolds and surface-located treatment facilities. Access roads and operational facilities, temporary structures, etc, may also be needed.

*Table D-2. Maximum Detected Plume Concentrations (2 sheets).*

| Area Name | Plume Constituent | Units | Maximum Plume Concentration | EPA DWS | Washington Water Quality Standard |
|---|---|---|---|---|---|
| 100-B/C | Chromium | ug/L | >50.0 | 100 | 50 |
| | Strontium-90 | pCi/L | 56.7 | 42 | 8 |
| | Tritium | pCi/L | 28,000 | 20,000 | 20,000 |
| 100-D/DR | Chromium | ug/L | 1,360 | 100 | 50 |
| | Nitrate | mg/L | 205 | 45 | 45 |
| | Strontium-90 | pCi/L | 44.0 | 42 | 8 |
| | Tritium | pCi/L | 69,000 | 20,000 | 20,000 |
| 100-F | Chromium | ug/L | 82.4 | 100 | 50 |
| | Nitrate | mg/L | 110.0 | 45 | 45 |
| | Uranium | ug/L | 133.0 | 20 | 20 |
| | Strontium-90 | pCi/L | 20.5 | 42 | 8 |
| | Tritium | pCi/L | 98,300 | 20,000 | 20,000 |
| | Trichloroethylene | ug/L | 27.0 | 5 | N/A |
| 100-H | Chromium | ug/L | 300.0 | 100 | 50 |
| | Nitrate | mg/L | 730.0 | 45 | 45 |
| | Strontium-90 | pCi/L | 28.0 | 42 | 8 |
| 100-KE/KW | Chromium | ug/L | 210.0 | 100 | 50 |
| | Nitrate | Mg/L | 110.0 | 45 | 45 |
| | Strontium-90 | pCi/L | 803.0 | 42 | 8 |
| | Tritium | pCi/L | 1,040,000 | 20,000 | 20,000 |
| | Trichloroethylene | ug/L | 20.0 | 5 | N/A |
| 100-N | Chromium | ug/L | 200.0 | 100 | 50 |
| | Cobalt-60 | pCi/L | 732.0 | 100 | N/A |
| | Nitrate | mg/L | 65 | 45 | 45 |
| | Strontium-90 | pCi/L | 4,030 | 42 | 8 |
| | Tritium | pCi/L | 74,200 | 20,000 | 20,000 |
| 200 East | Chromium | ug/L | 73.0 | 100 | 50 |
| | Nitrate | mg/L | 120.0 | 45 | 45 |
| | Cyanide | ug/L | 39.5 | 200 | 200 |
| | Strontium-90 | pCi/L | 9,740 | 42 | 8 |
| | Cesium-137 | pCi/L | 2,310 | 10 | 10 |
| | Tritium | pCi/L | 3,370,000 | 20,000 | 20,000 |
| | Cobalt-60 | pCi/L | 40.1 | 100 | N/A |
| | Iodine-129 | pCi/L | 11.8 | 1 | 1 |
| | Plutonium-239/240 | pCi/L | 2,670 | 1 | N/A |
| | Technetium-99 | pCi/L | 3,700 | 900 | 900 |
| | Uranium | ug/L | 64.3 | 20 | 20 |

*Table D-2. Maximum Detected Plume Concentrations (2 sheets).*

| Area Name | Plume Constituent | Units | Maximum Plume Concentration | EPA DWS | Washington Water Quality Standard |
|---|---|---|---|---|---|
| 200 West | Cesium-137 | pCi/L | 21.8 | 10 | 10 |
| | Cobalt-60 | pCi/L | 13.2 | 100 | N/A |
| | Cyanide | ug/L | 20.0 | 200 | 200 |
| | Chromium | ug/L | 500.0 | 100 | 50 |
| | Nitrate | mg/L | 1,700 | 45 | 45 |
| | Fluoride | mg/L | 5.1 | 4 | 4 |
| | Tritium | pCi/L | 2,400,000 | 20,000 | 20,000 |
| | Iodine-129 | pCi/L | 86.1 | 1 | 1 |
| | Technetium-99 | pCi/l | 23,700 | 900 | 900 |
| | Uranium | ug/L | 2,720 | 20 | 20 |
| | Carbon Tetrachloride | ug/L | 5,200 | 5 | 0.3 |
| | Chloroform | ug/L | 107.0 | 100 | 7 |
| | Strontium-90 | pCi/L | 14.5 | 42 | 8 |
| | Trichloroethylene | ug/L | 44 | 5 | N/A |
| 300 Area | Chromium | ug/L | <100.0 | 100 | 50 |
| | Uranium | ug/L | 150 | 20 | 20 |
| | Trichloroethylene | ug/L | 6.1 | 5 | N/A |
| 600 Area | Cyanide | ug/L | 110.0 | 200 | 200 |
| | Chromium | ug/L | >100.0 | 100 | 50 |
| | Nitrate | mg/L | 100 | 45 | 45 |
| | Strontium-90 | pCi/L | 994.0 | 42 | 8 |
| | Technetium-99 | pCi/L | 4,310 | 900 | 900 |
| | Tritium | pCi/L | 257,000 | 20,000 | 20,000 |
| | Trichloroethylene | ug/L | 25 | 5 | N/A |

### *D.2.2 Implementation of Pump-and-Treat Technology*

There are numerous strategies for the design/implementation of pump-and-treat systems. Selection of a technology is largely dependent upon site-specific factors such as cleanup goals, aquifer and contaminant characteristics, contaminant treatability, and costs. In general, the implementation of pump and treat technology is dependent upon three basic factors.

1. The extractability of the contaminants from the aquifer, i.e., How well the contaminants migrate with the groundwater to the extraction well and how effectively the contaminants are pumped out of the aquifer.

2. The treatability of the contaminants, i.e., removal of the contaminants from the pumped groundwater.

3. The effective placement and pumping of extraction wells such that the contaminant plume is contained and extracted.

For the purposes of this EIS, extractability of the contaminants is assumed and discussions of treatment technologies are presented elsewhere in the EIS (see Section D.5). The methodology presented here, therefore, concerns the effective placement of extraction well systems.

### *D.2.3 Extraction Well Placement*

The simplest strategy would be extraction well placement in the center of a stagnant contaminant plume. In this case the well is pumped such that contaminants are contained and drawn to the well with the groundwater, and removed from the aquifer. More often, however, the aquifer is not stagnant. Groundwater is continuously flowing under the influence of a hydraulic gradient, and contaminants are dispersed in plumes that migrate with and in the general direction of groundwater flow. This latter condition is the situation governing the movement of most contaminant plumes located in the unconfined aquifer at the Hanford Site.

In the hydrologic conditions at the Hanford Site, extraction well placement strategy involves the placement of a well or wells in the path of the contaminated groundwater plume in such a way as to completely or, at least, sufficiently capture it. Effective well placement (plume capture) is a function of both well location and the groundwater extraction (pumping) rate. Efficient design of an extraction well system requires detailed site specific information and is beyond the scope of this EIS. A simplified approach sufficient for making useful estimates relevant to the purposes of this EIS, however, can be used and is presented below.

### *D.2.4 A Simple Well Placement/Plume Capture Methodology*

*D.2.4.1 Basic Approach.* A simple general method for determining the number of wells and pump rates for effectively capturing contaminant plumes at the Hanford Site can be based on the work of Javandel and Tsang (Javandel and Tsang 1986). These researchers found that the flow path that serves as the boundary between aquifer flow within the well capture zone and the remainder of aquifer flow is:

$$y = +/- \ ((Q/2BU) - (Q/2\pi BU)\tan^{-1}(y/x)) \qquad (1)$$

where:

Q = well pump rate, ($m^3$/sec)

B = aquifer thickness, (m)

U = regional aquifer flow velocity (prior to pumping), (m/sec)

x and y are coordinates with the x-axis parallel to the regional direction of flow and along the shortest flow path, the y-axis perpendicular to the x-axis, and with the origin at the well location.

In developing this equation the researchers assumed that the extraction well fully penetrates the aquifer, that the aquifer is confined and has a uniform thickness, that the aquifer is homogeneous and isotropic, and that regional flow in the aquifer is uniform. Similar, equations were developed for two, three and 'n' wells equally spaced along the y-axis. Other researchers (BLM 1977) have determined that this equation is also valid for defining well capture zones in unconfined aquifers if the well drawdown in any well does not exceed 25% of the initial aquifer thickness.

The Javandel and Tsang equation for a single extraction well is depicted graphically in Figure D-1. Flow paths within and outside of the capture zone are also depicted and demonstrate the 'capture' phenomenon. In effect, any contaminant plume that fits within the capture zone boundary will be hydraulically contained and can potentially be remediated using pump and treat technology.

### *D.2.5 Specific Methodology*

Using the Javandel and Tsang equation (equation 1) for a single extraction well, it is apparent that when $x = 0$, $y = +/- Q/2BU$, therefore, the 'y-axis capture distance', i.e., the distance along the y-axis between the two points of intersection with the flow path boundary is Q/BU. Again, based upon the work of Javandel and Tsang, it can be shown that this term also represents the 'y-axis capture distance' per well for multiple wells systems. This suggests a simple method that can be used to make conservative estimates of the number of wells necessary to capture a given plume. Dividing the maximum contaminant plume width perpendicular to the direction of regional aquifer flow by an appropriately determined 'y-axis capture distance' for a single well will yield the maximum number of wells necessary to capture the plume under consideration.

As noted above this method can be applied to the contaminant plumes in the unconfined aquifers of the Hanford Site if the maximum total drawdown of any extraction well does not exceed 25% of the total aquifer thickness prior to pumping.

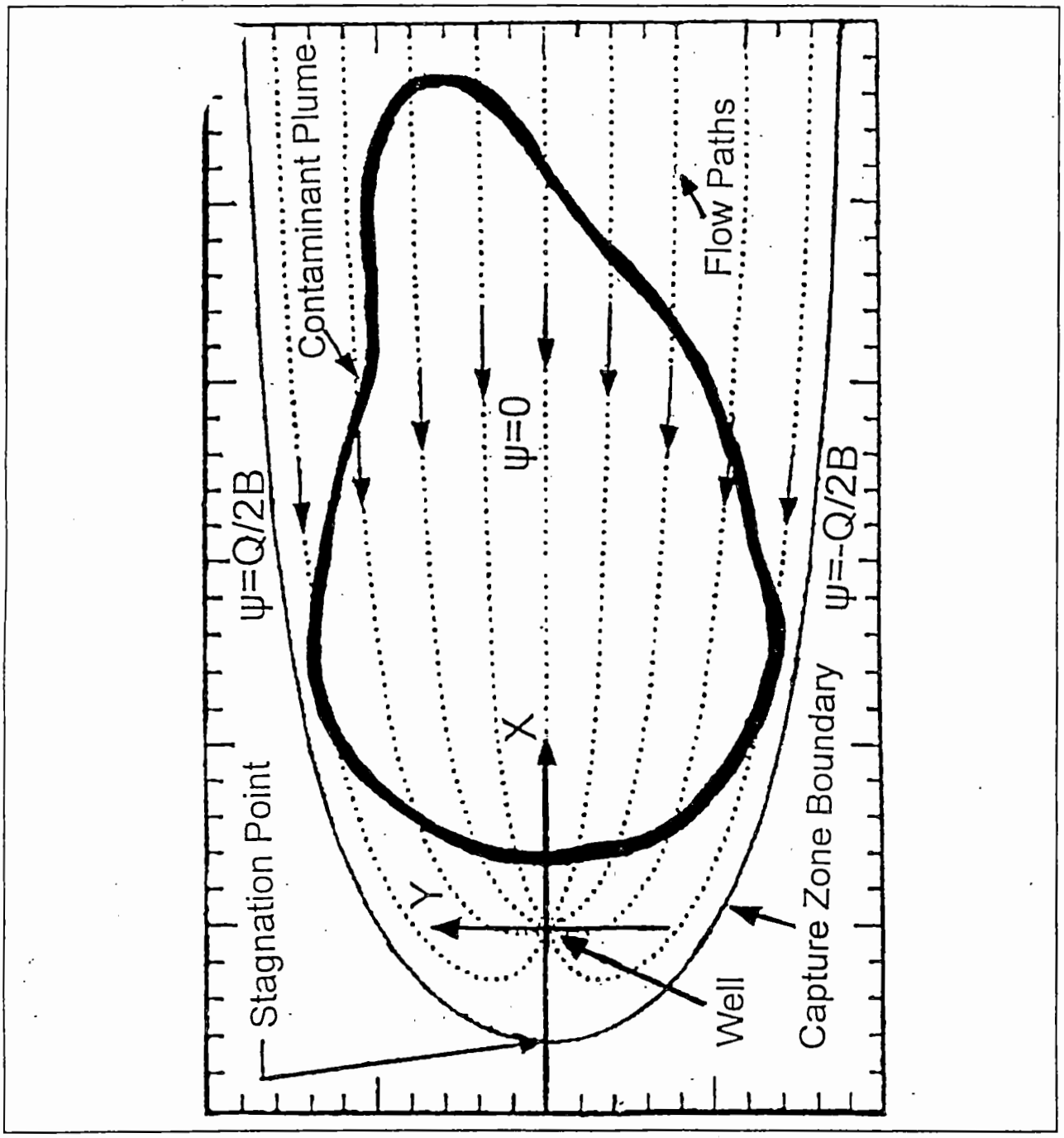
The drawdown determinations are based upon the non-equilibrium method of Theis (Freeze and Cherry 1979; Domenico and Schwartz 1990);

$$s = Q/4\pi T \; W(u);$$

where:

$s$ = drawdown at the well, m
$Q$ = pumping rate, $m^3$/day
$T$ = transmissivity, $m^2$/day
$W(u)$ = the well function as defined:
$W(u)$ = Integral $e^{-4}/u$ du, where
$u = r^2S/4Tt$, and
$r$ = well screen radius, m
$S$ = aquifer specific yield, dimensionless
$T$ = transmissivity, $m^2$/day, and
$t$ = time, days.

*Figure D-1. Graphical Representation of the Javandel and Tsang Equation for a Single Extraction Well (Javandel and Tsang 1986).*



For ease of computation, either the modified Thies equations of Cooper and Jacob, (Cooper and Jacob 1946) or the polynomial approximations of Huntoon (Huntoon 1980) can be used. The method of Huntoon has been incorporated into the DREAM Model (Bonn and Rounds 1990) and was used for the determinations made in this analysis. It is acknowledged that pumping of adjacent wells will effect the drawdown in each well. Because of the linearity of the basic well flow equations these drawdown effects are additive. It is estimated that compensation for the drawdowns of adjacent wells and well losses would not exceed 20% of the total drawdown at any given well. Therefore a threshold level for the determination of drawdown from a single well of 20% of aquifer thickness is used instead of the 25% listed above.

The specific methodology and results are provided below:

1. List the pertinent contaminant plumes associated with each Hanford Site Area for the Reactors on the River, Central Plateau, and Other Areas geographic areas. Graphical depictions of each Hanford Site Area contaminant plumes have been generated and were used to determine spatial distribution of the contaminant plumes.

   Carbon tetrachloride in the 200 West area is also not assessed due to the fact an extensive remediation effort is currently under way for this contaminant plume.

2. Obtain specific hydrogeologic and contaminant-specific input variables for each of the Hanford Site Areas. Parameters and data sources are listed in Table D-3.

3. Determine the maximum plume width perpendicular to the regional direction of aquifer flow. These data have been determined from graphs of each plume and are presented in Table D-3.

4. Determine the pump rate of a fully penetrating well that will have an acceptable drawdown. It was determined that drawdowns for the maximum appropriate pumping rate of 272.6 $m^3$/day (50 gpm) were less than 10% of aquifer thickness for all Hanford Site Areas. Therefore, any pump rate within the range of 55 $m^3$/day (10 gpm) to 272.6 $m^3$/day (50 gpm) is acceptable. A pump rate of 136.3 $m^3$/day (25 gpm) was selected.

5. Calculate the 'y-axis capture distance' for the determined pump rate and aquifer characteristics, i.e., $y = Q/BU$. Y-axis capture distances for each plume are listed in Table D-3.

6. Divide the maximum contaminant plume width perpendicular to the regional aquifer flow by the y-axis capture distance' This gives the number of wells needed to capture the plume. The number of wells for each plume are listed in Table D-4.

7. Locate the wells downgradient from the plume.

*Table D-3. Hydrologic Properties for the Individual Geographic Areas.*

| Geographic Area | Transmissivity ($m^2$/day) | Porosity | Specific Yield | Storage Coefficient | Gradient | Aquifer Thickness (m) | Max. Combined Plume Width (m) | Y-axis Capture Distance (m) | Hydraulic Conductivity (m/day) | Contaminants Plumes used in the Analysis |
|---|---|---|---|---|---|---|---|---|---|---|
| Reactors on the River | 1.500751e+19 | 0.12 | 0.1 | 0.2 | 0.00018 | 3.0152e+11 | 1.213e+23 | 504.4 | 5.0505e+12 | Nitrate and Sr-90 |
| 100-B/C | | 0.12 | 0.1 | 0.2 | 0.00025 | | | 716.8 | | Chromium, Nitrate and Sr-90 |
| 100-K | | 0.12 | 0.1 | 0.2 | 0.00038 | | | 469.7 | | Nitrate and Sr-90 |
| 100-N | | 0.12 | 0.1 | 0.2 | 0.00041 | | | 664.4 | | Chromium, Nitrate and Sr-90 |
| 100-D | | 0.12 | 0.1 | 0.0006 | 0.001 | | | 109.0 | | Chromium, Nitrate, Sr-90 and U |
| 100-H | | 0.12 | 0.1 | 0.2 | 0.001 | | | 272.4 | | Chromium, Nitrate, Sr-90 and U |
| 100-F | | | | | | | | | | |
| Central Plateau | 100001000 | 0.12 | 0.1 | 0.0002 | 0.00021 | 1550 | 30407650 | 64.86 | 66720 | U, Nitrate, Cs-137, Pu, Sr-90 and Tc-99 |
| 200 East | | 0.12 | 0.1 | 0.0002 | 0.00068 | | | 200.3 | | U, Nitrate, Tc-99, I-129 andTCE |
| 200 West | | | | | | | | | | |
| All Other Areas | 500010000 | 0.26 | 0.1 | 0.009 | 0.0009 | 1015 | 21003438 | 272.4 | 500667 | U and Nitrate |
| 300 Area | | 0.12 | 0.1 | 0.0002 | 0.00021 | | | 64.86 | | I-129, Sr-90 and Nitrate |
| 600 Area | | | | | | | | | | |

PNL1995a, PNL 1995b, PNL 1995c, Freeze and Cherry 1979

*Table D-4. Summary of Materials and Other Information for the Groundwater Remediation Systems.*

| Geographic Area | No. of Pumping Wells | Pumping Rate/Well ($m^3$/day) | Well Depth (m) | Maximum Aquifer Drawdown (m) | Length of Interwell piping (m) | Length of piping to Treatment Facility (m) | Pumping/ Injection Time (years) | Treatment Method | Distance from Treatment System to Discharge Area (m) |
|---|---|---|---|---|---|---|---|---|---|
| Reactors on the River | | | | | | | | | |
| 100-B/C | 2 | 136.2 | 60 | 0.16 | 500 | 10,500 | 10 | RO/IX/GAC | |
| 100-K | 4 | 136.2 | 45 | 0.32 | 720 | 7,000 | 10 | RO/IX/GAC | |
| 100-N | 3 | 136.2 | 45 | 0.32 | 470 | 4,500 | 10 | RO/IX/GAC | |
| 100-D | 6 | 136.2 | 40 | 0.46 | 2,660 | 4,300 | 10 | RO/IX/GAC | |
| 100-H | 15 | 136.2 | 40 | 0.22 | 1,530 | 5,500 | 10 | RO/IX/GAC | |
| 100-F | 18 | 136.2 | 40 | 0.46 | 4,090 | 5,700 | 10 | RO/IX/GAC | 4,000 |
| Central Plateau | | | | | | | | | |
| 200-East | 13 | 136.2 | 115 | 0.034 | 520 | 8,000 | 10 | RO/IX/GAC | |
| 200-West | 36 | 136.2 | 120 | 0.31 | 5,200 | 11,800 | 10 | RO/IX/GAC | 11,500 |
| All Other Areas | | | | | | | | | |
| 300 Area | 8 | 136.2 | 40 | 0.06 | 1630 | 7,500 | 10 | RO/GAC | |
| 600 Area | 53 | 136.2 | 100 | 0.34 | 3,240 | 1,100 | 10 | RO/IX/GAC | 2,500 |
| **Total for All Areas** | 158 | 21,520 | | | 20,560 | 48,400 | 10 | | 18,000 |

PNL 1995a and PNL 1995b
Area Disturbed per well = 930 $m^2$
Assume a 10 m wide strip for the well piping

## *D.3 Extraction Well Systems*

### *D.3.1 Reactors on the River – Unrestricted Future Land-Use and Restricted Future Land-Use Alternative (R1)*

Groundwater contaminants in the 100-Area reactor sites located along the Columbia River include chromium, nitrate, strontium-90, uranium, and TCE. Data are not available on the location and concentrations for all plumes; however, available data are summarized in Table D-2. Hydrologic properties for all the 100-Areas are presented in Table.

*D.3.1.1 100-B/C Area.* At the 100-B/C Area, the contaminants of interest are strontium-90 and Nitrate, which have reported maximum concentrations higher than DWS or WQS (PNL 1995). The depth to groundwater in this vicinity averages approximately 30 m (98.4 ft) below ground surface. Eight wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 60 m (196.8 ft) below ground surface, would be designed in a pattern to capture the plumes of interest at this site. A maximum aquifer drawdown of 0.16 m (0.52 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported strontium-90 and nitrate concentrations at the 100-B/C Area (Table D-2) are higher than acceptable standards. The pumped water would be sent to a proposed treatment facility located between the 100-D and 100-H areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

*D.3.1.2 100-K Area.* At the 100-KE and 100-KW Areas, the contaminants of interest are chromium, nitrate, and strontium-90 all of which have reported concentrations higher than DWS or WQS (PNL 1995). The depth of groundwater in this vicinity averages approximately 30 m (98.4 ft) below ground surface. Three distinct plumes (2 nitrate/chromium/strontium-90 plumes and one strontium-90 plume) were identified; one combined nitrate/chromium/strontium-90 plume and the single strontium-90 plume within the 100-K Area and a nitrate/chromium/strontium-90 plume between the 100-K and 100-N areas. Two wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 45 m (147.6 ft) below ground surface, would be designed in a pattern to capture the nitrate/chromium/strontium-90 plume located between the 100-K and 100-N areas. One well with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 45 m (147.6 ft) below ground surface, would be used at the two plume sites within the 100-K Area to capture the combined nitrate/chromium/strontium-90 and the strontium-90 plume. A maximum aquifer drawdown of 0.32 m (1.05 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 100-K Area are higher than acceptable standards. The pumped water would be sent to a proposed treatment facility located between the 100-D and 100-H areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

*D.3.1.3 100-N Area.* At the 100-N Area, the contaminants of interest are strontium-90 and nitrate, both of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity averages approximately 30 m (98.4 ft) below ground surface. Three wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 45 m (147.6 ft) below ground surface, would be designed in a pattern to capture the strontium-90/nitrate plumes of interest in this Areas. A maximum drawdown of 0.32 m (1.05 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 100-N Area are higher than applicable standards. The pumped water would be sent to a proposed treatment facility located between the 100-D and 100-H areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

*D.3.1.4 100-D Area.* At the 100-D Area, the contaminants of interest are strontium-90, chromium, and nitrate, all of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity averages approximately 30 m (98.4 ft) below ground surface. Six wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 40 m (131.2 ft) below ground surface, would be designed in a pattern to capture the strontium-90/chromium/nitrate plumes of interest at this site. A maximum drawdown of 0.46 m (1.51 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 100-D Area are higher than applicable standards. The pumped water would be sent to a proposed treatment facility located between the 100-D and 100-H areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

*D.3.1.5 100-H Area.* At the 100-H Area, the contaminants of interest are chromium, nitrate, strontium-90 and uranium, all of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity averages approximately 30 m (98.4 ft) below ground surface. Fifteen wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 40 m (131.2 ft) below ground surface, would be designed in a pattern to capture the chromium/nitrate/strontium-90/uranium plumes of interest at this site. A maximum drawdown of 0.22 m (0.72 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 100-H Area are higher than applicable standards. The pumped water would be sent to a proposed treatment facility located between the 100-D and 100-H areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

*D.3.1.6 100-F Area.* At the 100-F Area, the contaminants of interest are nitrate, uranium, chromium and strontium-90 which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity averages approximately 30 m (98.4 ft) below ground surface. Eighteen wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 40 m (131.2 ft) below ground surface, would be designed in a pattern to capture the chromium, nitrate, uranium, and strontium-90 plumes of interest at this site. A maximum drawdown of 0.46 m (1.51 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 100-F Area are larger than applicable standards. The pumped water would be sent to a proposed treatment facility located between the 100-D and 100-H areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

### *D.3.2 Central Plateau – Exclusive Future Land-Use Alternative*

The Central Plateau includes the 200-East and 200-West areas. These areas were treated as a single unit for purposes of the capture-zone analyses but are reported separately in the following sections. Groundwater contaminants in the 200 Area sites include chromium, nitrate, cyanide, fluoride, strontium-90, cesium-137, tritium, cobalt-60, iodine-129, plutonium, technetium-99, uranium, carbon tetrachloride, chloroform and TCE. Data are not available on the location and concentrations for all plumes. Hydrologic properties for the 200 Areas vary considerably and are presented in Table D-3.

*D.3.2.1 200 East Area.* At the 200-East Area, the contaminants of interest are nitrate, strontium-90, cesium-137, plutonium, technetium-99, and uranium, all of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity averages approximately 100 m (328 ft) below ground surface. Thirteen wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 115 m (377.2 ft) below ground surface, would be designed in a pattern to capture the

plumes of interest at this site. A maximum drawdown of 0.034 m (0.11 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 200 East-Area are higher than applicable standards. The pumped water would be sent to a proposed treatment facility located between the 200-East and 200-West areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be sent (through the pipeline) to the existing 100 Area river discharge lines.

*D.3.2.2 200 West Area.* At the 200 West Area, the contaminants of interest are nitrate, iodine-129, technetium-99, uranium, and TCE, all of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity averages approximately 70 m (229.6 ft) below ground surface. Thirty-six wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 120 m (393.6 ft) below ground surface, would be designed in a pattern to capture the plumes of interest at this site. A maximum drawdown of 0.31 m (1.02 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 200-West Area are higher than applicable standards. The pumped water would be sent to a proposed treatment facility located between the 200-East and 200-West areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be sent (through the pipeline) to the existing 100 Area river discharge lines.

### *D.3.3 All Other Areas – Restricted Future Land-Use Alternative (R1)*

*D.3.3.1 300 Area.* Hydrologic properties at the 300 Area are summarized in Table D-3. At the 300 Area, the contaminants of interest are uranium and nitrate, both of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this area averages approximately 30 m (98.4 ft) below ground surface. Eight wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) and a depth of 40 m (131.2 ft) below ground surface, would be designed in a pattern to capture the plumes of interest at this site. A maximum drawdown of 0.06 m (0.20 ft) was calculated at the end of 10 years of pumping (Table D-4). Maximum reported plume concentrations (Table D-2) at the 300 Area are higher than applicable standards. The pumped water would be sent to a proposed treatment facility located adjacent to the 300 Area. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be released directly to the Columbia River.

*D.3.3.2 600 Area.* Hydrologic properties at the 600 Area are highly variable and depend upon location. Table D-3 shows the transmissivity and storativity values assumed for the 600 Area capture-zone analysis. At the 600 Area, the contaminants of interest are nitrate, strontium-90, and Iodine-129, all of which have reported concentrations higher than DWS or WQS. The depth to groundwater in this vicinity is highly variable but averages approximately 85 m (278.8 ft) below ground surface. Fifty-three wells, each with a pumping rate of 136.3 $m^3$/day (25 gpm) would be designed in a pattern to capture the plumes of interest at this site. All wells were assumed to be 100 m (328 ft) deep. A maximum drawdown of 0.34 m (1.12 ft) was calculated at the end of 10 years of pumping (Table D-4). Table D-2 shows the maximum reported plume concentrations in the 600 Area. The pumped water would be sent to a proposed treatment facility located between the 200-East and 200-West areas. Once all contaminants of concern had been reduced to acceptable levels, the treated water would be sent (through the pipeline) to the existing 100 Area river discharge lines.

## *D.4 Treatment Systems*

For this capture-zone analysis, the 100 Areas would have one centralized treatment facility located between the 100-D and 100-H areas. The waste stream would have an estimated flow rate of 21,535 $m^3$/day (3,950 gpm) and include chromium, nitrate, strontium-90, and uranium. Additionally, it is expected that other plumes present at levels below DWS may be captured by the pumping wells and these contaminants would be introduced into the waste stream. Because of the varied types and numbers of contaminants that may be resident or introduced into the waste stream, it has been assumed that a combination of treatment technologies for a given impacted area would be needed. A combination of reverse osmosis (RO), ion exchange (IX), and granular activated carbon (GAC) would be used to treat the waste stream. RO treatment would be used for all contaminants except radionuclides, which would use IX. When organics are a part of the waste stream, GAC would be used to treat them. These treatment technologies are very expensive and are not necessarily proven effective in the removal of all inorganics, organics, and radionuclides to concentrations commensurate with DWS. For example, reducing strontium-90 in water has been achieved commercially only to concentrations in the vicinity of 300 pCi/L using IX units (Robinson et al. 1988; Robinson et al. 1990). Because the EPA proposed drinking water standard for strontium-90 is 42 pCi/L, treatment may not reduce the concentrations to acceptable discharge limits. Also, because the concentrations of many constituents in a given waste stream may be below DWS due to dilution from pumping, treatment may not be needed continuously during the 10-year pumping duration. Final decision on treatment facility components and design will be made through the CERCLA process.

Table D-4 summarizes the type of treatment suggested for each of the 100 Area sites. All water treatment waste products would be transported to the 200 Areas for disposal. Treated water that meets DWS or other guidelines would be discharged to the Columbia River via pipeline from the treatment facility.

For the 200 Areas, a single treatment facility is proposed to be located between the 200 East and 200 West Areas. This treatment facility would consist of RO and IX units for treatment of inorganics and trace metals, and radionuclides. Granular activated carbon would be used for treating organics, principally carbon tetrachloride. Solid water treatment waste products would be disposed in the 200 Areas. Treated water would be sent (through the pipeline) to the existing 100 Area river discharge lines.

In the 300 Area, a single treatment plant is proposed. Because the only radionuclide present in measurable quantities is uranium, RO treatment would be used. Granular activated carbon would be used for organic constituents of concern. Concentrates and other water treatment waste products would be transported to the 200 Areas for disposal. Treated water would be discharged via pipeline to the Columbia River.

## *D.5 References*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# Appendix E

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# E.0 Quarry Sites, Borrow Pits, Haul Roads, Railroads, Cap Description

Two borrow pits have been identified as potential sources of construction materials for isolation barriers related to the *Hanford Remedial Action Environmental Impact Statement*. These are the McGee Ranch and Pit 30. The McGee Ranch would serve as a source of fine material and Pit 30 would provide coarser aggregates.

In addition to the borrow pits, several potential sources of basalt that may be required for barrier construction have been identified. The basalt quarry would provide material for riprap and possibly for asphalt and asphalt base layers of the reference barrier. Ten locations on or near the Hanford Site have been evaluated as candidate quarry sites. Evaluations were based on qualifying criteria (Hanford Site proximity, basalt availability, suitability of basalt, and threatened and endangered species impacts) and engineering criteria (haul distance, safety, expansion potential, and land reclamation potential). Other important factors in determining the eligibility of a site for quarry development are the significant cultural, archaeological, and historical resources that may be present.

Tentative haul routes have also been identified. These routes generally follow existing roads, which may require upgrading and widening to support long-term hauling. Construction materials would be hauled from the borrow sites and the basalt quarry with conventional truck-trailer combinations. The use of large scale mining trucks are not planned at this time for this portion of the action.

Initial cultural resource surveys indicate that the most favorable sites for basalt quarry development from an engineering perspective are the least favorable for development from a cultural resource perspective. The most favorable sites exhibit features desirable to Native Americans for cultural and religious practices. Lower ranking sites for quarry development from an engineering perspective typically consist of near-surface basalt sources and/or do not have the commanding view of the surrounding terrain that is attractive for Native American cultural and religious practices. Factors other than cultural resources (such as transportation cost and reclamation) make these sites less desirable from an engineering perspective.

To provide conservative estimates of impacts and costs related to the placement of barriers, it was assumed that the reference barrier design (see Section E.3) would be used for all sites. Other designs involving less material, and therefore, having lower construction costs, are being considered for use at the Hanford Site. Details regarding volumes and costs of barriers may be found in Appendix H, Cost and Physical Impact Assessment.

## E.1 Reference Barrier Design

A reference barrier design was used in the HRA-EIS to estimate volumes of materials required and associated costs under the future land-use alternatives that require capping of waste sites. Other designs involving less material, and therefore, having lower construction and environmental costs, are being considered for use at the Hanford Site. However, because the reference barrier design provides the most conservative estimates of volumes and costs it is used as a baseline for evaluation of potential impacts in the HRA-EIS. The reference barrier design is described in the following sections.

The reference barrier design, commonly referred to as the Hanford Barrier, is a composite barrier intended to protect sites from human intrusion, burrowing animals, root penetration, and infiltration by water. It was designed specifically for conditions at the Hanford Site (i.e., a desert environment). The Hanford Barrier consists of ten layers divided into three zones: water retention and evapotranspiration zone, capillary break and biotic intrusion zone, and a low-permeability moisture barrier (Figure E-1).

### *E.1.1 Water Retention and Evapotranspiration Zone*

This zone is made up of a 100-cm (39-in.) thick layer of silt and pea gravel over a 100-cm (39-in.) thick layer of silt. The top layer of silt and pea gravel would be seeded to various grasses. The silt and pea gravel layer provides a growing medium and some resistance to wind and water erosion. Water from precipitation would be held in this 200-cm (78-in.) thick zone. The plants established on top of this zone would extract water from the soil and, through evapotranspiration, return moisture to the atmosphere.

### *E.1.2 Capillary Break and Biotic Intrusion Zone*

This zone is constructed of coarser materials than the water retention zone and is made up of a sand filter, a gravel filter, and a layer of crushed basalt (Figure E-1). The capillary break is based on the concept that for moisture to flow into the larger gaps that are found in the coarser material, water pressure must be increased to nearly atmospheric pressure. This would result in the upper, fine-textured water retention zone becoming nearly saturated before moisture would break through into the underlying coarse material. A geotextile filter is located at the interface between the water retention zone and the capillary break. The geotextile filter would impede downward migration of fine-soil into the underlying sand filter thereby maintaining the textural contrast that creates the capillary break. The larger material, particularly the crushed basalt, provides a barrier to burrowing animals, to root penetration, and inadvertent human intrusion. Burrowing animals are likely to be discouraged from burrowing into the basalt by its obvious hardness. The basalt chunks would be larger than the largest burrowing mammals (on the Hanford Site, the badger and coyote) could readily remove from a depth of 200 cm (78 in.). The lack of moisture in the basalt layer would also discourage root penetration.

### *E.1.3 Low Permeability Moisture Barrier*

The low permeability moisture barrier consists of a 30-cm (11.7-in.) crushed rock or gravel drainage layer, a 10-cm (3.9-in.) asphaltic concrete layer and a base course. The purpose of this zone is to collect moisture that may penetrate the upper layers and divert it away from the buried wastes that underlie this last zone. The low permeability moisture barrier is situated on top of the existing interim soil cover.

### *E.1.4 Construction of the Hanford Barrier*

The Hanford Barrier would be constructed with a side slope of crushed basalt riprap. These sides protect the central portion of the barrier and the waste beneath (Figures E-2 and E-3). Because the functional portion of the barrier extends beyond the perimeter of the underlying waste, the buried wastes are protected from water infiltration through the basalt riprap side slopes. Water that

accumulates under the side slopes would be well outside of the perimeter of the wastes. This massive layer of fractured basalt would also discourage excavation into the barrier from the sides.

### *E.1.5 Protection from Human Intrusion*

As designed, the Hanford Barrier is expected to last 1,000 years or more. It is likely that institutional control of the Hanford Site may be lost before the waste protected by the Hanford Barrier is rendered harmless by radioactive decay. A system to protect the waste sites from human disturbance has been developed. The location of all sites would be recorded on U.S. Geological Survey maps with appropriate warnings. The waste sites would be ringed by surface markers (Figure E-4 and E-5) and subsurface markers (Figure E-6) would be imbedded in the water retention zone and the low permeability barrier or interim soil cover (Figure E-7).

A complete discussion of the Hanford Barrier design and function may be found in Wing (1993) and DOE-RL (1994). The number of barriers, the barrier locations, costs, and material volumes are presented in Appendix H.

## *E.2 Quarry Sites and Roads*

The following sites are presented as preferred sources of barrier materials based on engineering studies and other available information (BHI 1995; Lindberg 1994; Skelly 1992). Final selection of borrow sites would depend on the amounts and types of materials required, which would be determined by the future land-use alternatives selected and the remedial designs developed through the CERCLA process. For example, use of a modified RCRA C barrier would require minimal use of basalt, and could make development of a basalt quarry unnecessary. Development of the preferred quarry sites would require further consultations with state and federal agencies, and tribal governments regarding species of concern and cultural resources associated with each site.

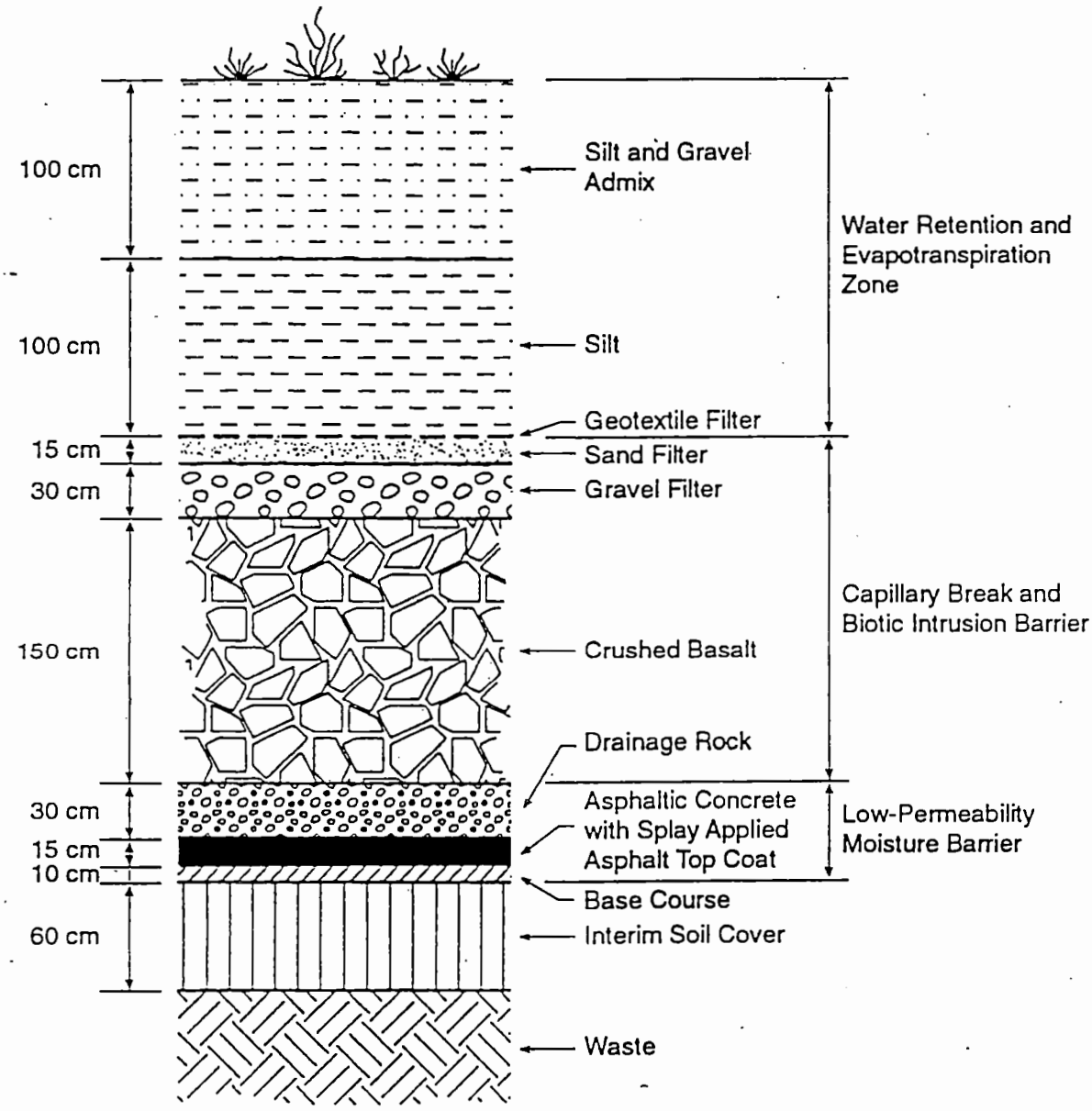
### *E.2.1 McGee Ranch*

The McGee Ranch has been identified as the preferred borrow site for fine-grained soils to be used to construct isolation surface barriers for closure of waste sites at the Hanford Site. Fine-grained soils may be used as topsoil for the barrier (Figure E-1).

The McGee Ranch is located near the west boundary of the Hanford Site, north of State Highway 24, west of State Highway 240 and south of the Columbia River. The site encompasses 873 ha (2,182 ac) and has approximately 36.1 million $m^3$ (47.3 million $yd^3$) of proven reserves (Lindberg 1994; Skelly 1992).

The Hanford Cultural Resources Laboratory has conducted an archaeological survey of the McGee Ranch (PNL 1992) and has determined that there are historic and prehistoric cultural resources associated with this site. Prior to initiating activities at the McGee Ranch, requests for determination of eligibility, findings of effect and adverse effect, and plans for mitigating adverse impacts of the proposed action would be prepared and submitted to the appropriate federal, state, and tribal interests.

*Figure E-1. Cross Section of the Hanford Barrier (DOE-RL 1994).*



A brief survey for sensitive species was conducted at the McGee Ranch site in 1991 (WHC 1991). No threatened or endangered species were encountered. Species of concern potentially associated with the site include the loggerhead shrike (*Lanius ludovicianus*) and Swainson's hawk (*Buteo swainsoni*). Assuming total use of the site, operation of the McGee Ranch borrow pit would eradicate 652 ha (1,629 ac) of shrub-steppe habitat. Prior to initiating the development of the site, the state and the U.S. Fish and Wildlife Service (FWS) would be consulted regarding sensitive species.

No wetlands are associated with the McGee Ranch. At one time, however, there was a small seep associated with an uncapped well on the site. This seep provided some value to wildlife but the well has been capped and the seep has dried up.

Use of the McGee Ranch as a borrow site would result in an extensive below grade excavation, altering the undulating terrain in the area. The local vista would be altered from relatively level grasslands. Excavation would also generate fugitive dust as the result of excavating, loading, and hauling fill materials. Dust could temporarily obscure local views of the area and reduce visibility. Potential mitigation measures could include using water and other agents to control dust and covering all loads during transport.

### *E.2.2 Pit 30*

Pit 30 is an existing borrow site immediately adjacent to the west side of the 200 East Area. Pit 30 is a disturbed site associated with pre-Hanford farming activity. The proposed action would potentially impact 172 ha (426 ac), including the existing 49-ha (120-ac) pit. A formal calculation of total reserves is not available, but reserves at Pit 30 are estimated to be approximately 15.3 million $m^3$ (20 million $yd^3$) of material. Pit 30 would provide aggregate to be used as graded filter material in the reference barrier (Figure E-1) and other graded barriers. Expansion of the existing pit would be necessary to provide sufficient quantities of this material. Full use of the site would eradicate approximately 138 ha (345 ac) of shrub-steppe habitat. Cultural resource and sensitive species surveys have not been conducted for Pit 30 and would be required prior to excavation. Preliminary information received from the FWS and the state of Washington indicate that there are no sensitive species associated with this site. Completion of these surveys and consultation with the state of Washington and the FWS would be required prior to initiating activity. If necessary, mitigation plans would be developed to address potential adverse impacts. Because Pit 30 is an existing site and enlargement would not appreciably alter the existing landscape, potential visual impacts are not considered significant. Excavation activities would generate fugitive dust that could temporarily obscure local vistas. Potential mitigation measures could include using water or other agents to control dust and covering loads during hauling.

### *E.2.3 Potential Basalt Quarry Sites*

Candidate quarry sites have been evaluated on the basis of qualifying criteria and engineering criteria (BHI, 1995). A broad range of possible quarry sites, including seven on-site candidate quarries and three off-site privately operated quarries, were evaluated. Candidate quarries include exposed basalt outcrops and basalt sources at or slightly below grade. Sites evaluated as potential basalt quarries were Vernita Quarry, McGee Ranch, Arid Lands Ecology (ALE) Reserve Site, Horn

Rapids Site, Gable Mountain Site, Gable Butte Site, West Haven Site, Section 9 Quarry, D'Atli Quarry, and Mahaffey Quarry. The preferred quarry site for basalt would be identified in the Record of Decision for the HRA-EIS or addressed in subsequent NEPA documentation tiered from the HRA-EIS. Figure E-8 identifies the potential Hanford quarry sites.

Factors considered in the evaluation were categorized into two groups: (1) environmental, safety, and security factors, and (2) engineering and economic factors. Qualifying criteria included Hanford Site proximity, basalt availability, suitability of basalt, and threatened and endangered species impacts. Engineering criteria included haul distance, safety, expansion potential, and land reclamation. Detailed descriptions of these criteria are provided in *Site Evaluation Report for Candidate Basalt Quarry Sites* (BHI 1995).

Historical, archaeological, and cultural resource impacts were not used as qualifying criteria because only about half of each candidate quarry located on the Hanford Site has been surveyed and the database is therefore incomplete. Before quarry operations began, these resources would be fully assessed, evaluated, and, if necessary, mitigated. Mitigation would be undertaken in accordance with a Memorandum of Agreement developed in coordination with DOE-RL, the State Historic Preservation Officer (SHPO) and Native American tribal governments.

One or more basalt quarry sites could potentially be developed to supply a conservatively estimated need for approximately 169,000 $m^3$ (220,000 $yd^3$) for the Columbia River, 9.4 million $m^3$ (12.3 million $yd^3$) for Reactors on the River, 34.5 million $m^3$ (45.2 million $yd^3$) of basalt riprap for barriers on the Central Plateau, and 4.3 million $m^3$ (5.7 million $yd^3$) for All Other Areas (see Appendix H, Table H-14). These requirements are based on the assumption that a future land-use alternative requiring capping of past-practice waste sites using the reference cap design (Section E.3) would be implemented at each of the four geographic areas. For the purpose of providing a bounding evaluation of needed basalt volumes, this EIS assumed that very large volumes of basalt are needed to incorporate in numerous reference barriers. However, it should be noted that actual remediation is unlikely to ever require this large volume of basalt. For example, the current planning baseline for operable units in the 200 Areas assumes that a modified RCRA C barrier would be used to cap waste sites. The RCRA C barrier would not require the use of significant quantities of basalt.

Development of a surface (or near-surface) basalt site would be comparable to a typical open-pit mine. A site occupying approximately 200 ha (500 ac) would need to be developed to a depth of approximately 25 m (80 ft) to satisfy the potential material need. The resulting pit would likely be difficult to reclaim. From an engineering perspective, basalt outcrops are ideal sources for acquiring riprap because the mining operation is simpler than that associated with an open-pit mine on a near-surface basalt source. Outcrops also have the advantage of using gravity to bring the riprap down to grade during a blasting operation, as opposed to hauling the material out of an open-pit mine. Development of basalt outcrops could entirely remove one or more outcrops (depending on required volume) to the surrounding grade or would lead to translocation of the basalt bench deeper into the formation. Reclamation of the site would be simplified because a site at grade would only require revegetation in order to blend with the surrounding topography. However, outcrop development would permanently and significantly alter the natural topography.

Haul distances from each quarry site to the 200 Areas were estimated by measuring road segment lengths. Distance and rough haul cost estimates were compared and alternate routes were identified for each potential quarry site. Sites were ranked with the lowest haul distance being most favorable. For consistency in characterizing the relative costs, the analysis assumed that 15.3 million $m^3$ (20 million $yd^3$) would be hauled from each quarry even though the D'Atli Quarry and Mahaffey

Quarry may not be able to supply this volume. Although the cost analysis in the engineering study (BHI, 1995) was based on transport of a smaller quantity of basalt than the conservative estimate of potential cover quantities in Appendix H, the relative ranking of sites would remain unchanged. Further engineering studies might be required to verify that a sufficient quality and/or quantity of basalt is available at some sites.

Ecological surveys for threatened or endangered species were conducted at each Hanford Site candidate quarry. No federal or state threatened or endangered species were observed at these sites, although several federal and state species of concern were observed. Ecological surveys were not conducted at the three privately operated commercial quarries.

Removal of basalt would require the use of explosives. Blasting would create a sharp report accompanied by a dust cloud. Blasting activities would create temporary visual impacts, would adversely impact cultural resources at the blast site, and could disturb wildlife. One isolated blast may have minimal impact on wildlife in the vicinity of the project. Repeated explosions may cause a variety of reactions. Some wildlife may desert the area and continue to avoid it for the duration of operations. Other wildlife may accommodate the disturbance and continue to live in the vicinity of the quarry site. To avoid potential adverse impacts on endangered or other sensitive species in the project vicinity, it may be necessary to limit blasting on a seasonal basis. Consultation with state and federal agencies regarding sensitive species would be required before using the proposed quarry sites. In addition, approval would be required from the State Historic Preservation Office and the Hanford Site Historic Preservation Office after consultation with tribal governments.

Excavation activities, including blasting, would generate fugitive dust, temporarily reducing visibility and obscuring local vistas. Dust generation could be partially mitigated by using water to control dust and tarping or otherwise covering all loads during transport.

Conveyor systems, quarry development close to roads, and dust associated with quarry development could potentially distract motorists or otherwise interfere with traffic movement along public and/or Hanford Site roads.

*E.2.3.1 Vernita Quarry.* Vernita Quarry is located off the east side of SR 24 near Vernita Bridge and has been identified as a suitable source to supply riprap required for use in constructing protective surface barriers at Hanford. NEPA documentation, including a survey for threatened or endangered species and a cultural resource survey, was prepared to support removing a small quantity of basalt from this quarry and approximately 10,700 $m^3$ (14,000 $yd^3$) of riprap was removed in March 1994. This basalt was used in construction of the prototype Reference (Hanford) Barrier over the B-57 crib in the 200-BP-1 operable unit. The Vernita Quarry could be developed by expanding the existing quarry or by developing a new quarry.

The quarry is located in an extensive basalt outcrop and a considerable volume of basalt exists outside of the area identified for quarry development. Initially, a 45 ha (110 ac) parcel would be developed. This parcel could yield 11.9 million $m^3$ (15.6 million $yd^3$) of loose riprap. Additional basalt could be obtained at this quarry by deeper excavation or by extending the quarry deeper into the basalt bench. Additional overburden per unit area may be encountered on parts of this outcrop if the quarry were to be expanded beyond the identified boundaries. The potential volume of useable basalt makes expansion of this site feasible and the Vernita Quarry site could supply a sufficient quantity of basalt for barrier construction.

Vernita Quarry is located in an exposed bench that could be reclaimed fairly successfully from a physical and topographic perspective. The bench would be translocated into the original outcrop and, when the quarry operations are complete, an exposed bench would remain. The approach to the new bench could be graded to provide a natural transition from the surrounding terrain. Revegetation would be used to further enhance the transition between undisturbed and disturbed areas.

Two state plant species of concern, the Crouching milkvetch and the Stalked-pod milkvetch, were observed during a survey at the Vernita Quarry site. A listing of all flora and fauna species observed at this site and other potential sites during the ecological surveys is included as Appendix C in the *Site Evaluation Report for Candidate Basalt Quarry Sites* (BHI 1995).

*E.2.3.2 McGee Ranch.* A near-surface basalt source exists on the interior north portion of the McGee Ranch site, northwest of the McGee well. Another portion of McGee Ranch is the designated borrow site for fine-textured soils required for barrier construction and the same infrastructure could support both the fine-soil borrow pit and the basalt quarry. Basalt characteristics for this site are not well known because surfaces or benches are not exposed. The formation exists as a knoll with approximately 15 to 30 m (50 to 100 ft) of vertical relief. Thickness of the overburden is not known. The most likely scenario for developing a quarry at this site would be to begin mining the east end of the ridge. Quarry development would proceed to the west in blocks that span the width of the formation, while maintaining grade above the 274-m (900-ft) contour level. If additional basalt is required, excavation would proceed below this contour level. This potential quarry site consists of a 47 ha (116 ac) parcel. Excavation of the site to the 274 m (900 ft) contour level would yield 15.3 million $m^3$ (20 million $yd^3$) of loose riprap.

The basalt source identified at McGee Ranch comprises a large knoll that may not supply all the necessary material. Deeper excavation in this basalt formation could yield more basalt. Also, there are likely other sources of basalt at McGee Ranch, but these sources may not be continuous with the existing formation in the same manner as the basalt found at the Vernita Quarry, which allows for uninterrupted quarry advancement. Further geologic surveys would be necessary to verify the extent of this formation as well as other formations at McGee Ranch and to determine if a sufficient quantity of basalt could be obtained from the McGee Ranch site.

The basalt knoll at McGee Ranch would be developed similarly to an exposed outcrop. The reclaimed landscape would not blend with the surrounding landscape to the same degree as the Vernita Quarry Site. The knoll has several drainages running lengthwise on either side, which would be eliminated by removal of the basalt formation during quarry operations. A pit would be created if the formation were mined below the grade of the surrounding landscape to provide additional basalt materials. A revegetation program would help the quarry area partially blend with the surrounding landscape and would camouflage the quarry.

Two state plant species of concern, the Crouching milkvetch and Scilla onion; one federal and state wildlife species of concern, the Loggerhead shrike; and one state wildlife species of concern, the Sage sparrow, were observed at the McGee Ranch site.

*E.2.3.3 ALE Site.* The ALE site consists of near-surface basalt located approximately 300 m (1000 ft) south of SR 240 near Gate 116. This site would be developed similar to an open-pit surface mine, with adequate buffer zones surrounding the excavation to maintain safe side slopes. Sufficient space exists for support facilities (crushers, shakers, stockpiles) adjacent to the excavation.

The near-surface portion of the basalt formation identified at this site covers a fairly limited area compared to the other sites. The quantity of basalt at this site is large, and expansion likely could be accommodated through deeper excavation of the flow. However, further geologic surveys would need to be conducted to verify the extent of this formation and the depth of overburden and weak flow-top material and to determine if a sufficient quantity of basalt could be obtained from the ALE site.

One state plant species of concern, the Stalked-pod milkvetch; and two state bird species of concern, the grasshopper sparrow and Sage sparrow, were observed at the ALE site.

Development of a quarry at the ALE site would leave a large depression that would be out of place in the surrounding landscape. The effect on visual quality would be limited, however, as much of the disturbance would occur below the existing surface. Excavation activities at the ALE site, including blasting, would generate fugitive dust, temporarily reducing visibility and obscuring local vistas. Dust generation could be partially mitigated by using water to control dust and tarping or otherwise covering all loads.

The ALE site is located within an ecology reserve that, for the most part, has remained untouched by large development activities. A large-scale basalt quarry does not fit historical or current use designations for the ALE Reserve.

*E.2.3.4 Horn Rapids Site.* A basalt outcrop and potential borrow area exists 900 m (3,000 ft) north of the Horn Rapids Dam. Characteristics of this site are not well known because few benches are exposed. The flow top is relatively flat at the 152-m (500-ft) contour with abundant scattered basalt rocks in places. Some vertical relief exists near the south end and near the center on the west side of the outcrop and these two locations may provide the most suitable locations to begin quarry operations. Initial quarry development would involve an 84 ha (207 ac) parcel.

The Horn Rapids Site could be developed in a manner similar to development of the basalt formation at Vernita. A well developed and exposed bench is not present at the Horn Rapids Site, but vertical relief at the south end would enable development of a 9- to 12-m (30- to 40-ft) bench. Reclamation at this site should be fairly successful from a physical and topographic perspective because the quarry operation could maintain a grade with the surrounding terrain, and therefore not create an open pit. However, if additional basalt is required beyond that contained in the portion of the formation above grade, a pit may have to be developed, which would complicate reclamation.

The near-surface source at the Horn Rapids Site is fairly extensive and could accommodate future expansion. Further geologic surveys would need to be conducted to verify the extent of this formation and to determine if a sufficient quantity of basalt could be obtained from the Horn Rapids site.

One federal and state wildlife species of concern (two pairs of Long-billed curlew) were observed at the Horn Rapids site.

*E.2.3.5 Gable Mountain Site.* Gable Mountain is a prominent geologic feature north of Route 11A and north to northeast of the 200 East Area. A small quarry already exists at this site, and observation of exposed basalt indicates that a suitable quality of basalt exists throughout the west end of Gable Mountain. This existing quarry on the west end of Gable Mountain has the capacity to supply all basalt needs at Hanford. The quarry would be expanded by advancing eastward into the mountain. A considerable quantity of naturally occurring talus slope material exists at Gable

Mountain and could provide many thousands of cubic meters of riprap. Also, several large piles (thousands of cubic meters) of human-made riprap exist in the old quarry site. Development of a quarry at the Gable Mountain Site would begin at the far west end of the mountain and proceed east.

Gable Mountain contains extensive exposed basalt benches that would be well suited for quarry development. An open pit mine would not be developed unless restrictions were placed on quarry expansion. Land reclamation at the site would be capable of blending the quarry with the surrounding landscape.

Gable Mountain has considerable cultural resource value as a sacred site for Native Americans. Development of a quarry at Gable Mountain would adversely impact a cultural resource valued by Native Americans and would represent an irreversible and irretrievable commitment of this cultural resource.

Two state plant species of concern, the Stalked-pod milkvetch and Crouching milkvetch; one federal and state wildlife species of concern, the Loggerhead shrike; and one state wildlife species of concern, the Prairie falcon, were observed at the Gable Mountain site.

*E.2.3.6 Gable Butte Site.* Gable Butte is a prominent geologic feature north of Route 11A and north of the 200 West Area. The quarry site would consist of outcrops located west of the railroad grade at Gable Butte, immediately west of Gable Butte proper. A considerable quantity of naturally occurring talus slope material exists at these outcrops that could possibly provide many thousands of cubic meters of riprap. Development of a quarry at the Gable Butte Site would begin at the south end of the area of interest. Sufficient space is available for stockpiling material and for parking equipment in the southern portion of this area. The outcrops that would be quarried range in elevation from about 152 m (500 ft) to 182 m (600 ft).

Gable Butte and associated outcrops have the capacity to meet all basalt needs at Hanford. The outcrops immediately west of Gable Butte provide excellent opportunities for quarry expansion. Talus slopes at the base of the outcrops could supply significant quantities of basalt that is already broken into riprap-sized material that may be suitable for barrier construction.

Gable Butte contains extensive exposed basalt benches that would be well suited for quarry development. An open pit mine would not be developed at the site unless restrictions were placed on quarry expansion. Land reclamation at the Gable Butte sites would be capable of blending the quarry with the surrounding landscape.

Gable Butte has cultural resource value as a sacred site for Native Americans. Development of a quarry at Gable Butte would impact a cultural resource valued by Native Americans and would represent an irreversible and irretrievable commitment of this cultural resource.

Two state plant species of concern, the Stalked-pod milkvetch and Crouching milkvetch, and one federal and state wildlife species of concern, the Loggerhead shrike, were observed at the Gable Butte site.

*E.2.3.7 West Haven Site.* The West Haven Site consists of a single large basalt outcrop located immediately east of Route 6 and west of Gable Butte. A considerable quantity of naturally occurring talus slope material exists at this site and could provide many thousands of cubic meters of riprap. The West Haven site and nearby outcrops have the capacity to supply sufficient quantities of basalt material for barrier construction. Development of a quarry at the West Haven site would begin at the

south end of the area of interest. Sufficient space is available for stockpiling material and for parking equipment in the southern portion of this area.

West Haven contains extensive exposed basalt benches that would be well suited for quarry development. An open pit mine would not be developed unless restrictions were placed on quarry expansion. Land reclamation at the site would be capable of blending the quarry with the surrounding landscape.

Two state plant species of concern, the Crouching milkvetch and the Stalked-pod milkvetch, were observed at the West Haven site.

*E.2.3.8 Section 9 Quarry.* The Section 9 Quarry is a privately owned quarry located north of Wanapum Dam. This quarry has considerable quantities of basalt in-place that could be blasted and crushed to produce the desired riprap. Quarry development would be the responsibility of the quarry operator. The status of threatened or endangered species and cultural resources at this site is not known.

The Section 9 Quarry and surrounding basalt formation could easily supply the volume estimate of 15.3 million $m^3$ (20 million $yd^3$) of riprap used in evaluating sites (BHI 1995). Bank reserve volumes at this quarry site are expected to be sufficient to meet the requirement for basalt materials used in barrier construction.

Restoration of the Section 9 Quarry would be the responsibility of the owner. USGS topographic maps indicate that the Section 9 Quarry site is situated along a basalt outcrop or bluff similar to the Vernita Quarry. The relative success of reclamation at the Section 9 Quarry would be similar to the Vernita Quarry site.

*E.2.3.9 D'Atli Quarry.* The D'Atli Quarry is a privately owned quarry located on the old highway 12, about 6.7 km (4.2 mi) east of Benton City, Washington. Development of the quarry would be the responsibility of the quarry operator. The status of threatened or endangered species and cultural resources at this site is not known.

The D'Atli Quarry and surrounding basalt formation could supply an estimated basalt bank volume of 7.6 million $m^3$ (10 million $yd^3$)[1] from this 24-ha (60-acre) site. This translates to approximately 11.6 million $m^3$ (15.2 million $yd^3$) of loose riprap. The D'Atli Quarry may not have sufficient reserves to supply the quantity of basalt required for construction of all barriers on the Hanford Site.

Restoration of the D'Atli Quarry would be the responsibility of the owner. USGS topographic maps indicate that the D'Atli Quarry site is situated along a basalt outcrop or bluff similar to the Vernita Quarry. The relative success of reclamation at the D'Atli Quarry would be similar to the Vernita Quarry site.

*E.2.3.10 Mahaffey Quarry.* The Mahaffey Quarry is privately owned and located on Clodfelter Road about 5.5 km (3.4 mi) from the intersection with Clearwater Avenue in Kennewick, Washington. Quarry development would be the responsibility of the quarry operator. Status of threatened or endangered species and cultural resources at this site is not known.

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[1] Personal conversation (10/26/94) with John Hjatalin, D'Atli Construction representative.

An area of 5.7 ha (14 acres) of 16 ha (40 acres) is currently permitted for the Mahaffey Quarry operations. Total reserve estimates at this site are not known. Much of the basalt is subsurface with as much as 2.4 m (8 ft) of topsoil in places. The reserve estimate for this site is assumed to be similar to that of the 24-ha (60-acre) D'Atli Quarry and the Mahaffey Quarry may not have sufficient reserves to supply the quantity of basalt required for construction of all barriers on the Hanford Site.

Restoration of the Mahaffey Quarry would be the responsibility of the owner. USGS topographic maps indicate that the Mahaffey Quarry would be similar to a near-surface quarry to accommodate removal of the volume basalt that may be required. The relative success of reclamation of the Mahaffey Quarry would be similar to reclamation of the ALE quarry site.

## *E.3 Haul Roads*

The proposed quarry and borrow sites would be served by existing roads and railroads. The majority of these roads are paved and would support conventional trucks but would require reinforcement and widening for continuous heavy truck use. Existing main railroad lines appear in good repair but should be evaluated for capacity and safety prior to using for an extensive haulage operation.[2] No permanent changes to topography or viewscape would occur. Some dust might be generated by the movement of trucks over haul roads, but this impact is not expected to be significant. Potential mitigation could include using water and other agents to control dust or covering loads.

### *E.3.1 McGee Ranch Haul Roads*

Trucks would exit the McGee Ranch borrow site by turning right onto southbound State Highway 24. This allows the trucks to move with the flow of traffic and not cross traffic. At the intersection with Route 11A (Yakima Barricade), the trucks would turn left on Route 11A, across traffic, and proceed east to remediation areas using the existing road network.

Safety problems associated with this route include merging heavily loaded, slow moving trucks into highway traffic on State Highway 24, crossing lanes of oncoming traffic when turning west on Route 11A, and crossing lanes of oncoming traffic when returning to Route 11A and when entering the McGee Ranch. Flaggers, merge lanes, and traffic control devices may improve safety along heavily travelled roads. A transportation study may determine alternate haul routes for transporting material from the McGee Ranch.

### *E.3.2 Pit 30 Haul Roads*

Pit 30 is located on the Central Plateau, in close proximity to the 200 Areas. Trucks would be able to access all areas with minimal impact on traffic.

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[2]Personal communication with David Duranceau, WHC, Environmental Technology and Assessment, Richland, Washington.

### *E.3.3 Potential Basalt Quarry Site Haul Roads*

Alternative haul routes for each potential basalt quarry were identified in *Site Evaluation Report for Candidate Basalt Quarry Sites* (BHI 1995). The preferred route is identified in the discussion below. The primary safety factors evaluated in relation to development of each quarry were related to transportation of basalt from the quarry. These factors are briefly discussed in relation to the preferred transportation route.

*E.3.3.1 Vernita Quarry Site Haul Roads.* The preferred haul route from the Vernita Quarry site is a frontage road along State Route 24. This route would follow a new paved frontage road, starting from the top of the Vernita Quarry near the pavement of the old highway. This road would parallel SR 24 on Hanford property and would merge with Route 11A near the Yakima Barricade. Route 11A would be followed to Route 3 and Route 3 would be followed to the barrier construction sites. Capital money would have to be allocated for constructing approximately 3,300 m (11,000 ft) of frontage road along SR 24.

This transportation alternative would include a safe route constructed parallel to SR 24 on Hanford property. This route would not interfere with traffic on SR 24, thereby removing risk involved with slow-moving trucks entering traffic moving at highway speeds. A gravel road could create large amounts of dust that might interfere with SR 24 traffic; a paved road would not. A gravel road would be feasible but would have to include a plan to monitor and control dust. Significant warning signs and signals would not have to be maintained on SR 24 or SR 240.

A disadvantage to this alternative would be slow haul trucks entering Route 11A near the Yakima Barricade potentially disrupting and affecting the safety of commuter traffic. Transportation schedules could be adjusted to avoid commuter traffic in the morning and early evening.

*E.3.3.2 McGee Ranch Quarry Site Haul Roads.* The preferred haul route from the McGee Ranch quarry site is a frontage road along State Route 24. This alternative would require construction of a frontage road parallel to and east of SR 24. A conveyor system crossing SR 24 could be used to move riprap from the quarry to a stockpile east of SR 24, near the new frontage road. Capital costs would be incurred for constructing roughly 1,400 m (4,600 ft) of frontage road along the east side of SR 24 from the riprap stockpile to the Yakima Barricade. Additional capital expenses would be incurred for implementing and maintaining the conveyor system. Because the fine-soils borrow site would also be located at McGee Ranch, a subsequent study may show that a haul route or method that combining the two operations may be preferred.

The advantage of this transportation alternative would be that trucks would not enter or exit SR 24 because the riprap would be conveyed to a stockpile on the east side of the highway, eliminating the need to cross a lane of highway traffic at the entrance and exit of the quarry and reducing the probability of a collision with motorists using SR 24.

Disadvantages of the alternative include distraction of motorists caused by a conveyor passing over SR 24 and a greater risk of traffic/personnel accidents during normal use, maintenance, or repair of the overhead conveyor system. This risk would be associated with repairing the conveyor over the highway or with the possibility of material (riprap or conveyor parts) falling from an improperly maintained or operated conveyor system.

*E.3.3.3 ALE Site Haul Roads.* The ALE site is located south of the 200 West Area, on the south side of SR 240. Basalt probably would be transported by conveyor over or under the highway to an area north of the highway, where it would be transferred to haul trucks, eliminating the need for trucks to cross Highway 240. The haul trucks would use the road connecting the 200 West Area and SR 240 to access the existing Hanford road network and transport basalt to the remediation areas. As an alternative, an overpass could be constructed on SR 240 to enable haul trucks to pass beneath the highway. Capital costs would be incurred for implementing and maintaining the conveyor system, for upgrading and maintaining affected Hanford roads and/or for construction of an overpass. If the conveyor system broke down, the stockpile north of SR 240 might not be replenished in a timely manner. In this case, trucks would haul riprap directly from the quarry until the conveyor was repaired.

This transportation alternative offers the advantage of using a conveyor system to move the riprap to a stockpile located on the north side of SR 240 eliminating the potential for an accident between trucks and rapidly moving highway traffic on SR 240.

Disadvantages to the alternative include the fact that the quarry operation would be located very close to SR 240, which could distract highway motorists and increase the potential for accidents. Trucks would encounter morning and afternoon commuter traffic on the spur road linking SR 240 and the 200 West Area. Dust from quarry operations and haul trucks could interfere with traffic flow on SR 240. A conveyor passing over SR 240 could distract motorists, and a greater risk of traffic/personnel accidents exists during normal use, maintenance, or repair of the overhead conveyor system. This risk be associated with repairing the conveyor over a highway or with the possibility of material (riprap or conveyor parts) falling from an improperly maintained or operated conveyor system. Potential measures to mitigate these safety concerns include adjusting haul schedules to avoid peak traffic times and use of dust control measures to minimize the impact of quarry operations on visibility.

*E.3.3.4 Horn Rapids Quarry Site Haul Roads.* The preferred route for hauling basalt from the Horn Rapids site would follow SR 240 to the SR 240 spur road, through the Rattlesnake Barricade, and into 200 West Area. Maintenance liability would exist for the affected segment of SR 240 and Hanford roads that would receive considerable wear from the heavy truck traffic.

The advantage of the preferred alternative for this site would be avoidance of heavy commuter traffic along Route 10, the Wye Barricade, and Route 4 South. Use of this route would minimize transportation schedule restrictions that would otherwise be required to avoid peak commuter traffic.

The disadvantage of the preferred route would be trucks entering public traffic moving at highway speeds on SR 240, and thereby increasing the potential for an accident. Traffic control measures would have to be in place to reduce the speed of highway traffic and to warn motorists of truck crossings.

*E.3.3.5 Gable Mountain Site Haul Roads.* The route for hauling basalt from the Gable Mountain site would tie into Route 11A from the east end of the mountain or via Route 4 North from the west end. Maintenance and upgrades would be required for the affected portions of Route 4 North and Route 11A.

The advantages of this route would include no interaction with public traffic and use of only short portions of Route 4 North and Route 11A, reducing interaction with commuter traffic. This route would establish a safe transportation corridor for haul trucks moving between Gable Mountain and the barrier construction sites. Another advantage is that the quarry operation at Gable Mountain is far removed from frequently used Hanford roads, so dust, noise, and operations activities would not distract motorists as readily as quarries located near frequently used roads and highways.

Disadvantages of the route would include interaction with moderate commuter traffic along Route 11A during the early morning and late afternoon commute.

*E.3.3.6 Gable Butte Site Haul Roads.* The route for hauling basalt from Gable Butte would be Route 11A. Approximately 2.4 km (1.5 mi) of new road would be constructed from the Gable Butte quarry to Route 11A to the south. This route will parallel the existing railroad spur from the Susie Switch to Route 11A. Costs will be incurred for constructing the road and for upgrading affected portions of Hanford Site roads.

Advantages of this haul route are similar to those described for Gable Mountain. No interference with public traffic would occur and only short portions of Route 11A would be used. A safe transportation corridor would be established for haul trucks moving between Gable Butte and the barrier construction sites. Another advantage is that the quarry operation at Gable Butte is far removed from Hanford roads, so dust, noise, and operations activities would not distract motorists as readily as quarries located near frequently used roads and highways.

Disadvantages associated with the route would include interaction with moderate commuter traffic Route 11A, particularly during the early morning and late afternoon commute.

*E.3.3.7 West Haven Quarry Site Haul Roads.* Route 6 would be used to haul basalt from the West Haven quarry site. About 0.80 km (0.50 mi) of road would be constructed from the quarry to Route 6. Route 6 would be followed to Route 11A to the barrier construction sites in the 200 Areas. Costs will be incurred for constructing an access road to the quarry and for upgrading affected portions of Hanford Site roads.

Advantages associated with this haul route would be similar to those described for Gable Mountain and Gable Butte. Haul trucks would not interference with public traffic and would use only Route 6 and short portions of Route 11A. As of this writing, Route 6 is closed to through traffic, and Route 11A normally receives only moderate commuter traffic. A safe transportation corridor would be established for trucks moving between West Haven and the barrier construction sites. The quarry operation at West Haven would be far removed from currently used Hanford roads, so dust, noise, and operations activities would not distract motorists as readily as quarries located closer to frequently used roads and highways.

A disadvantage associated with this route would be interaction with moderate commuter traffic along Route 11A, particularly during the early morning and late afternoon commute.

*E.3.3.8 Section 9 Quarry Site Haul Roads.* The route for hauling basalt from the Section 9 quarry would use SR 243. About 40 km (25 mi) of SR 243 would be followed from the Section 9 Quarry to the intersection with SR 24 at the Vernita Bridge. SR 24 would be followed for 8 km (5 mi) to the Yakima Barricade after which Route 11A would be followed to the 200 Area plateau. Costs would be incurred for road maintenance for roughly 50 km (31 mi) on SR 243 and SR 24, in addition to Hanford Site roads.

The primary disadvantage with this route would be use of public highways for much of the route. SR 243 and SR 24 are two-lane highways, which would create hazards for motorists passing slow moving haul trucks or haul trucks passing slow moving motorists. The potentially high volume of haul truck traffic would compound this hazard and could cause congestion on these highways.

Improvements in transportation safety would be realized if a rail line were installed on the existing railroad grade that runs from Beverly, over the Columbia River to the West, and south along the river through Riverland and onto the Hanford Site. A detailed cost/benefit analysis of the transportation infrastructure would need to consider the costs for several items including rail haulage, installation of new rail line, improving the existing rail grade as necessary, truck hauling, and road maintenance and upgrades before the most efficient means of transportation could be determined.

*E.3.3.9 D'Atli Quarry Site Haul Roads.* The route for hauling basalt from the D'Atli quarry would use Old Highway 12. This route would follow Highway 12 from the quarry to the bypass highway, and the bypass highway to Stevens Drive to the Wye Barricade, a total of about 38 km (24 mi). Costs would be incurred for road maintenance for the 38 km (24 mi) of Highway 12, the bypass highway, and Stevens Drive in addition to the Hanford Site roads.

The primary disadvantage with this route would be use of public highways for much of the route. Highway 12 is a two-lane highway, which would create hazards for motorists passing slow moving haul trucks or haul trucks passing slow moving motorists. The bypass highway has four lanes; however, heavy commuter traffic would be encountered in the early morning and late afternoon hours. Interaction with commuter traffic could potentially be mitigated by adjusting haul schedules to avoid heavy commuter traffic in the morning and late afternoon on these roads. The potentially high volume of haul truck traffic would compound hazards along this route.

Improvements in transportation safety would be realized if a rail line were installed on the existing railroad grade that runs about 900 m (3,000 ft) north of the quarry. This rail line would connect with existing track at the Richland Junction, south of SR 240 near Columbia Center Boulevard. A detailed cost/benefit analysis of the transportation infrastructure would need to consider the costs for several items including rail haulage, installing rail line, improving the existing rail grade as necessary, truck hauling, and road maintenance and upgrades before the most efficient means of transportation could be determined.

*E.3.3.10 Mahaffey Quarry Site Haul Roads.* The preferred route from the Mahaffey quarry would follow Clodfelter Road to Badger Road. This route would then follow Badger Road to I-82, proceeding west on the interstate highway. The trucks will exit I-82 onto I-182 and will follow this highway to the Bypass Highway, then to Stevens Drive and onto the Hanford Site. Costs would be incurred for road maintenance for 53 km (33 mi) of Clodfelter Road, Badger Road, I-82, I-182, the Bypass Highway, and Stevens Drive to the Wye Barricade in addition to the Hanford Site roads.

The primary disadvantage with this route would be use of several heavily travelled public roads and highways. Of primary concern is the use of the Bypass Highway for hauling large material volumes. Interaction with commuter traffic on the Bypass Highway could potentially be mitigated by adjusting haul schedules to avoid heavy commuter traffic the morning and late afternoon on these roads. The potentially high volume of haul truck traffic would compound hazards along this route.

Considerable improvements in transportation safety would be realized if the riprap is moved by conveyor system or truck to the nearby rail line in Badger Canyon. The length of the conveyor system would depend upon the location of the land near the rail line that was acquired for the dumping pocket and transfer yard, but would be at least 3.2 km (2 mi). The distance of truck haulage to the rail line would be approximately 8 km (5 mi), depending on the location of the land acquired for the dumping pocket and transfer yard. The rail line that would be used connects with track at the Richland Junction, south of SR 240 near Columbia Center Boulevard. A detailed cost/benefit analysis of the transportation infrastructure would need to consider the costs of rail haulage, the costs of installing rail line, costs for improving the existing rail grade as necessary, the costs for truck hauling, and associated road maintenance costs before the most efficient means of transportation could be determined.

*Figure E-2. Barrier Side Slope: Fractured Basalt Riprap Concept (Wing 1993).*

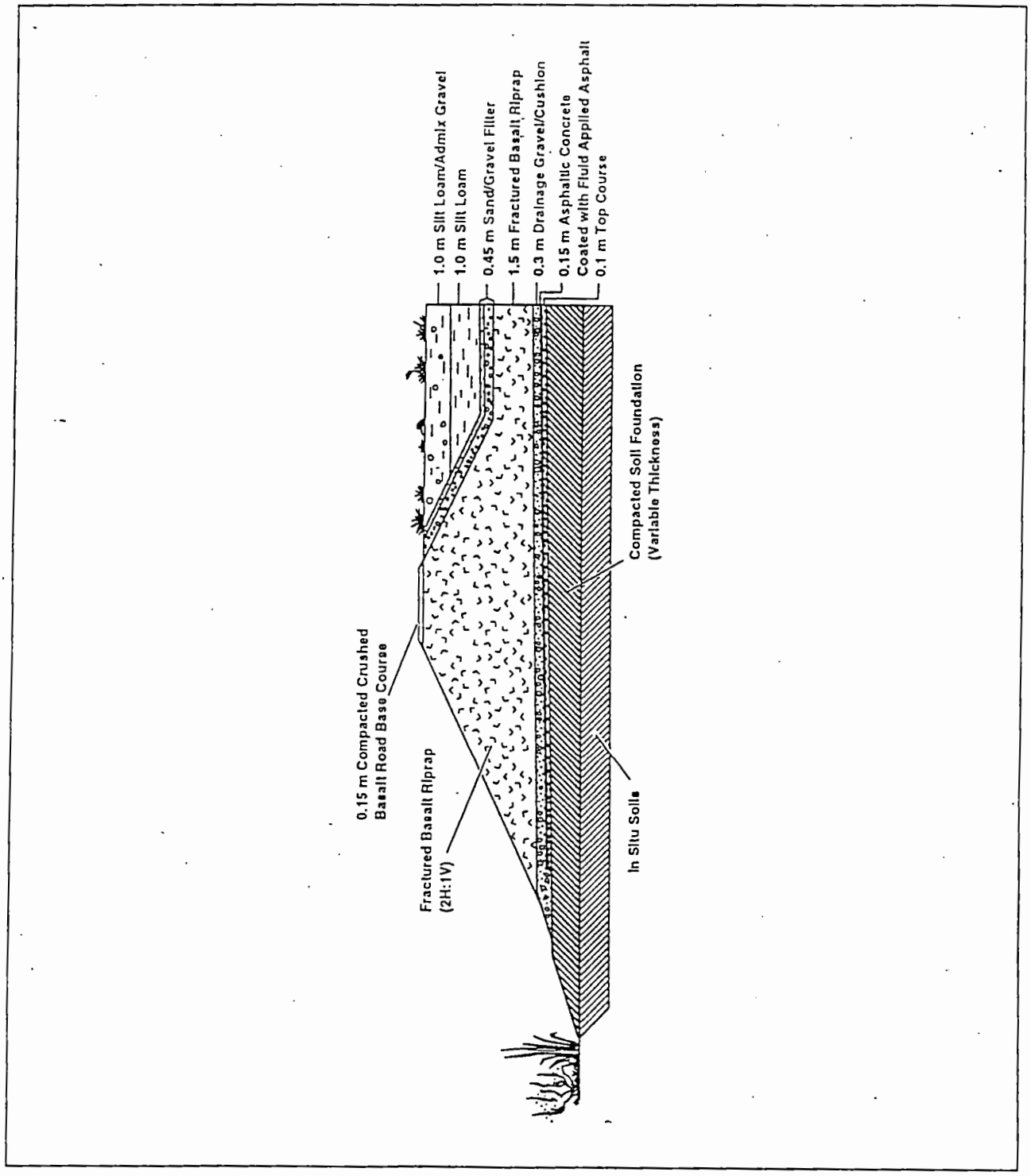

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*Figure E-3. Barrier Overhang (Wing 1993).*

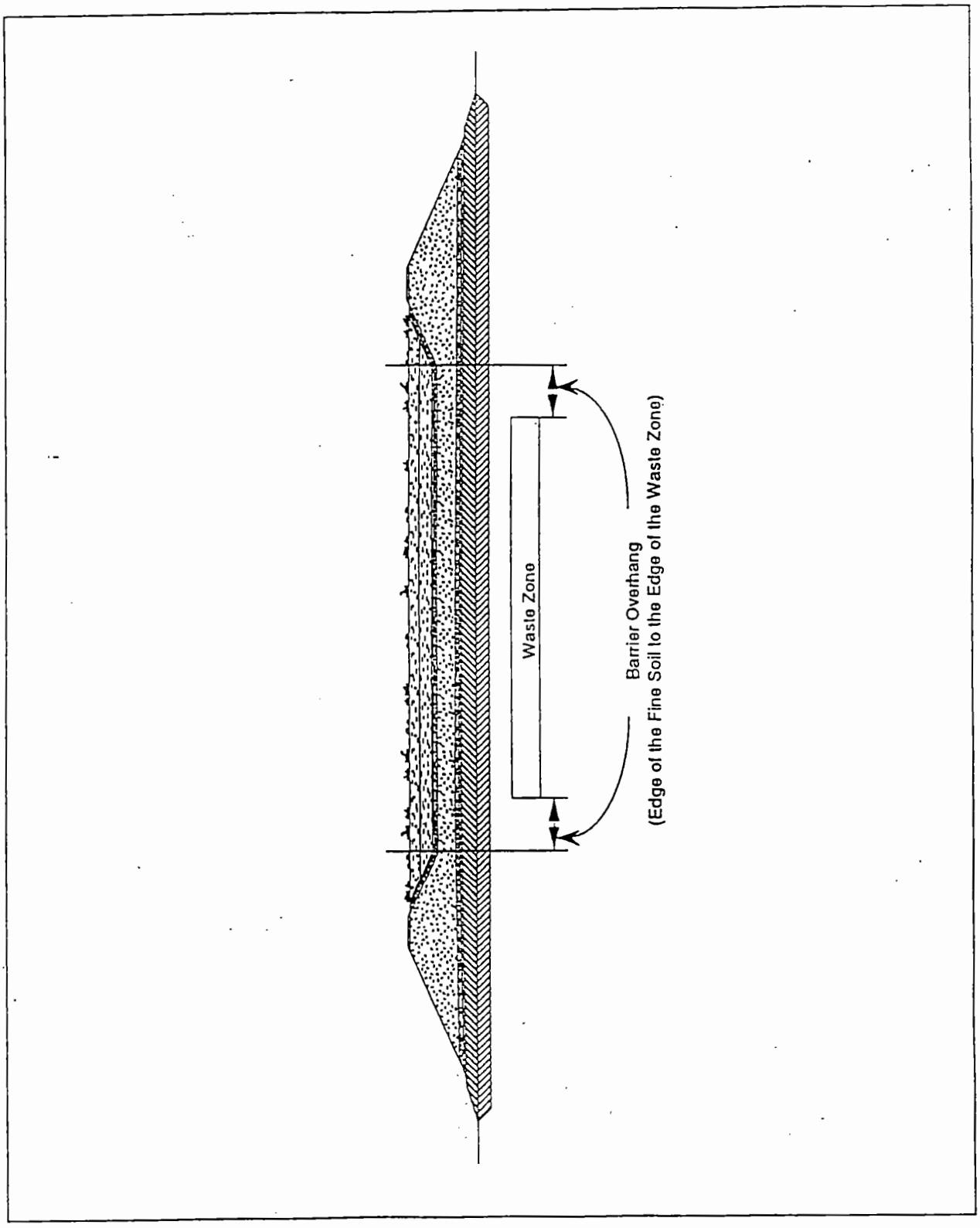

*Figure E-4. Surface Marker Placement Around a Waste Site (Wing 1993).*

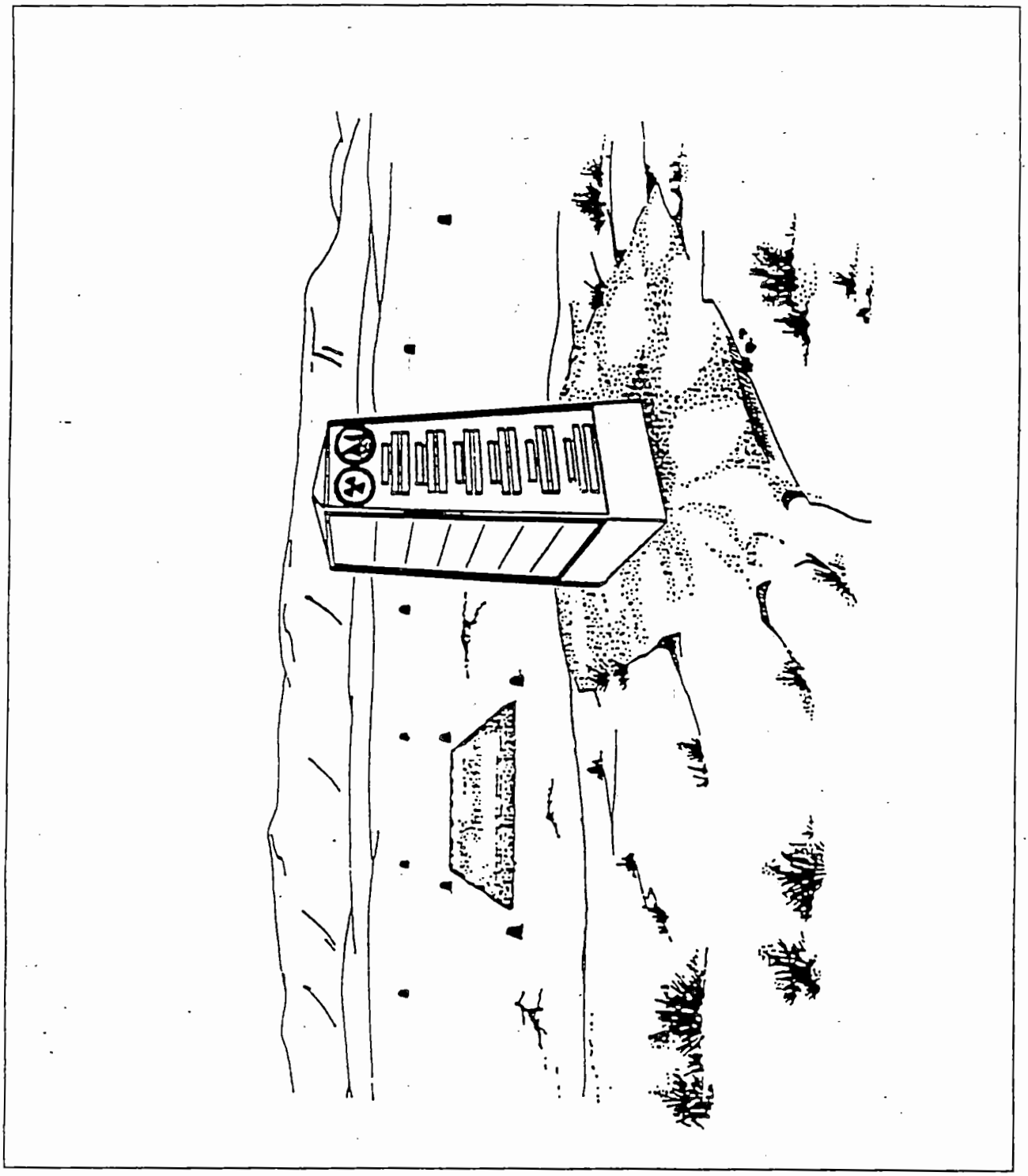

*Figure E-5. Surface Marker Placement Around a Group of Waste Sites (Wing 1993).*

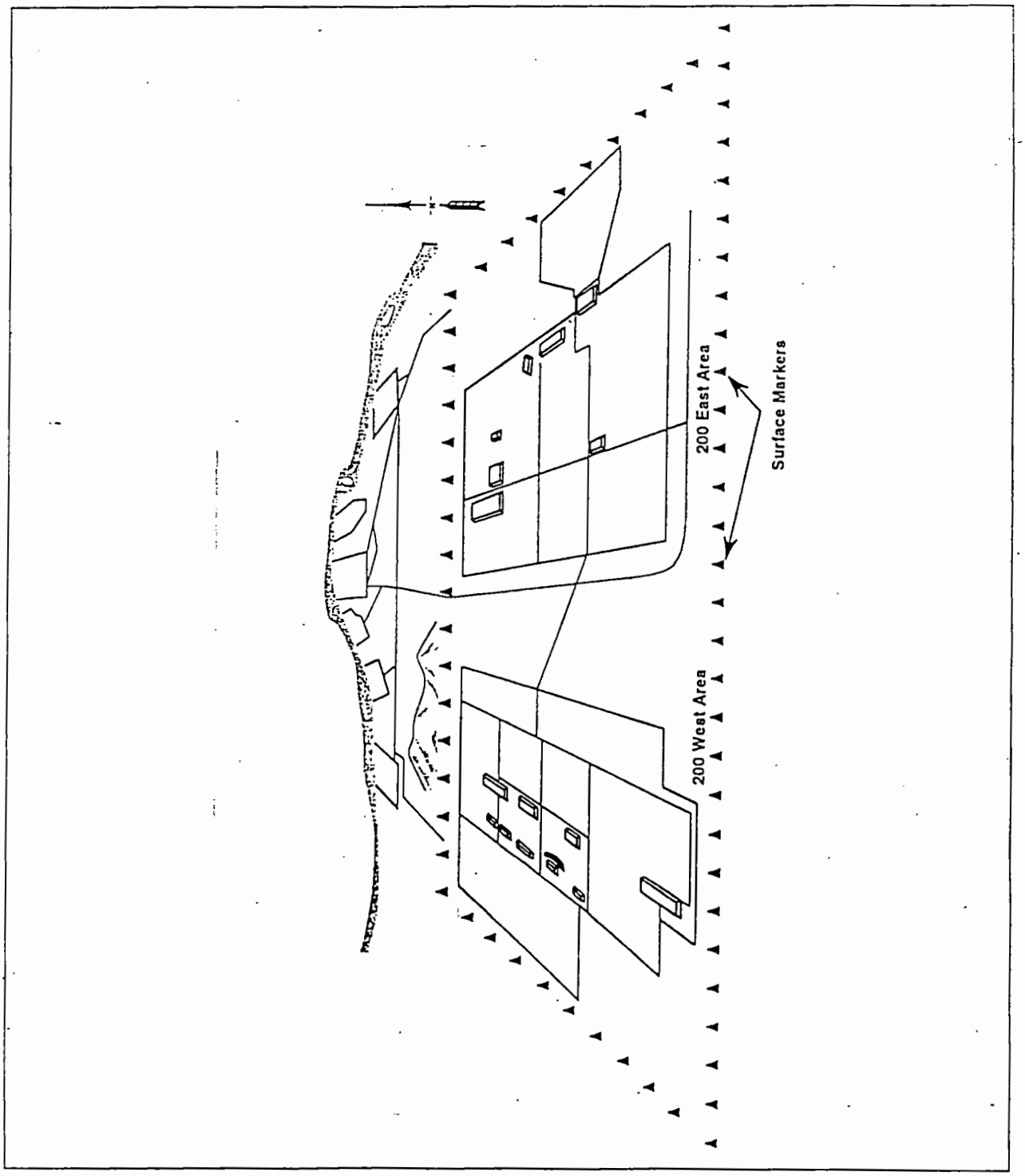

*Figure E-6. Subsurface Marker Design (Wing 1993).*

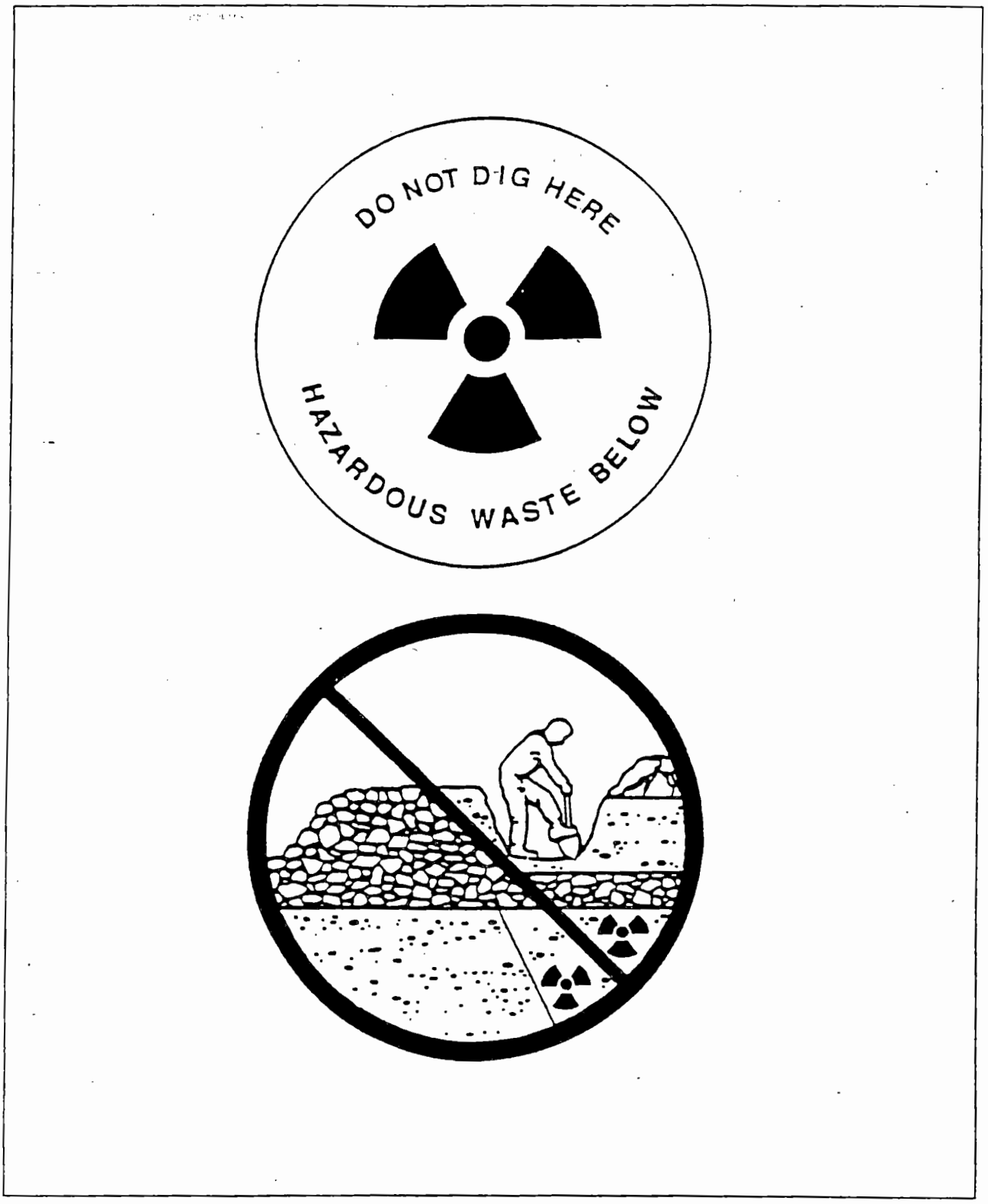

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*Figure E-7. Subsurface Marker Placement Within a Barrier (Wing 1993).*

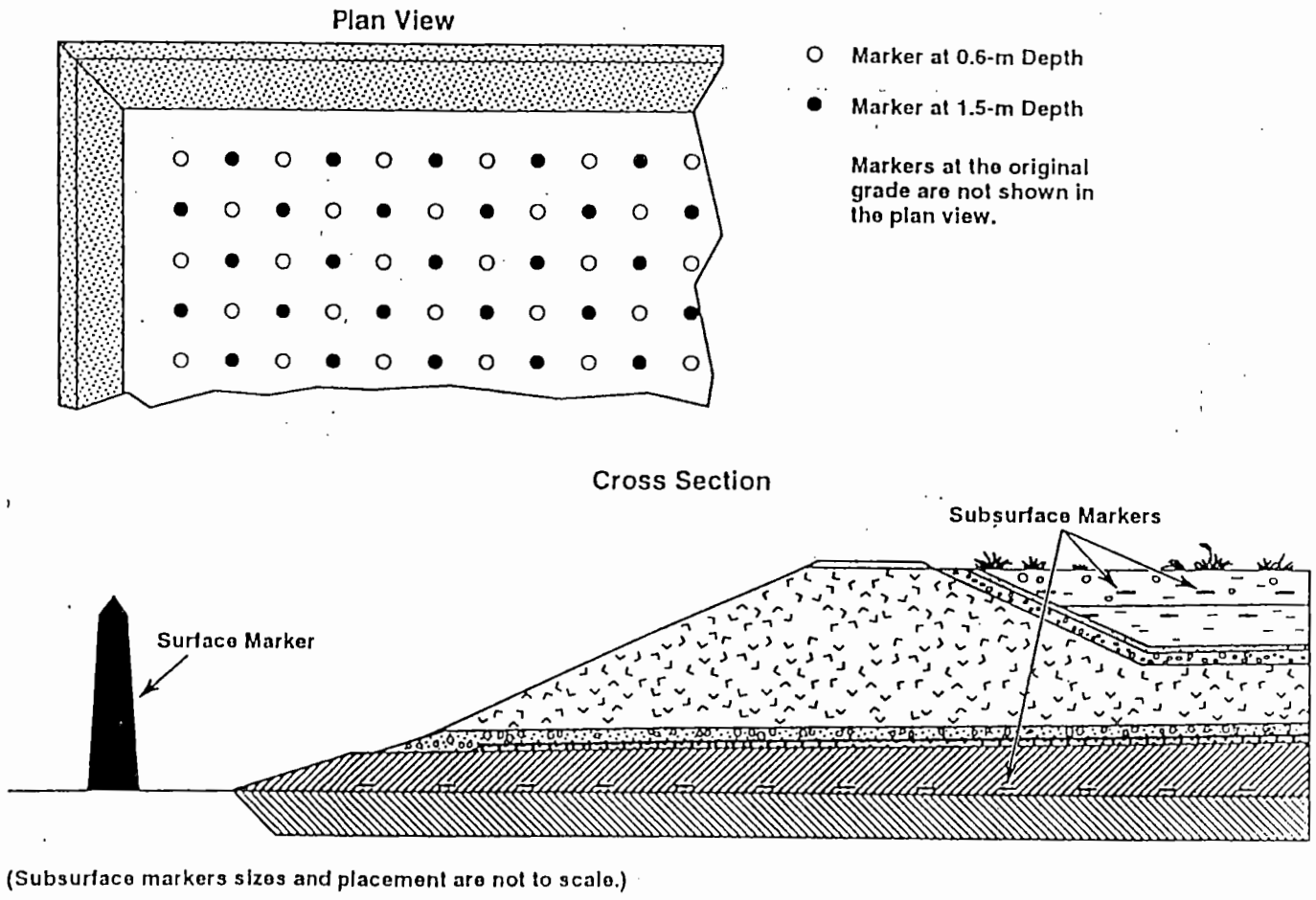
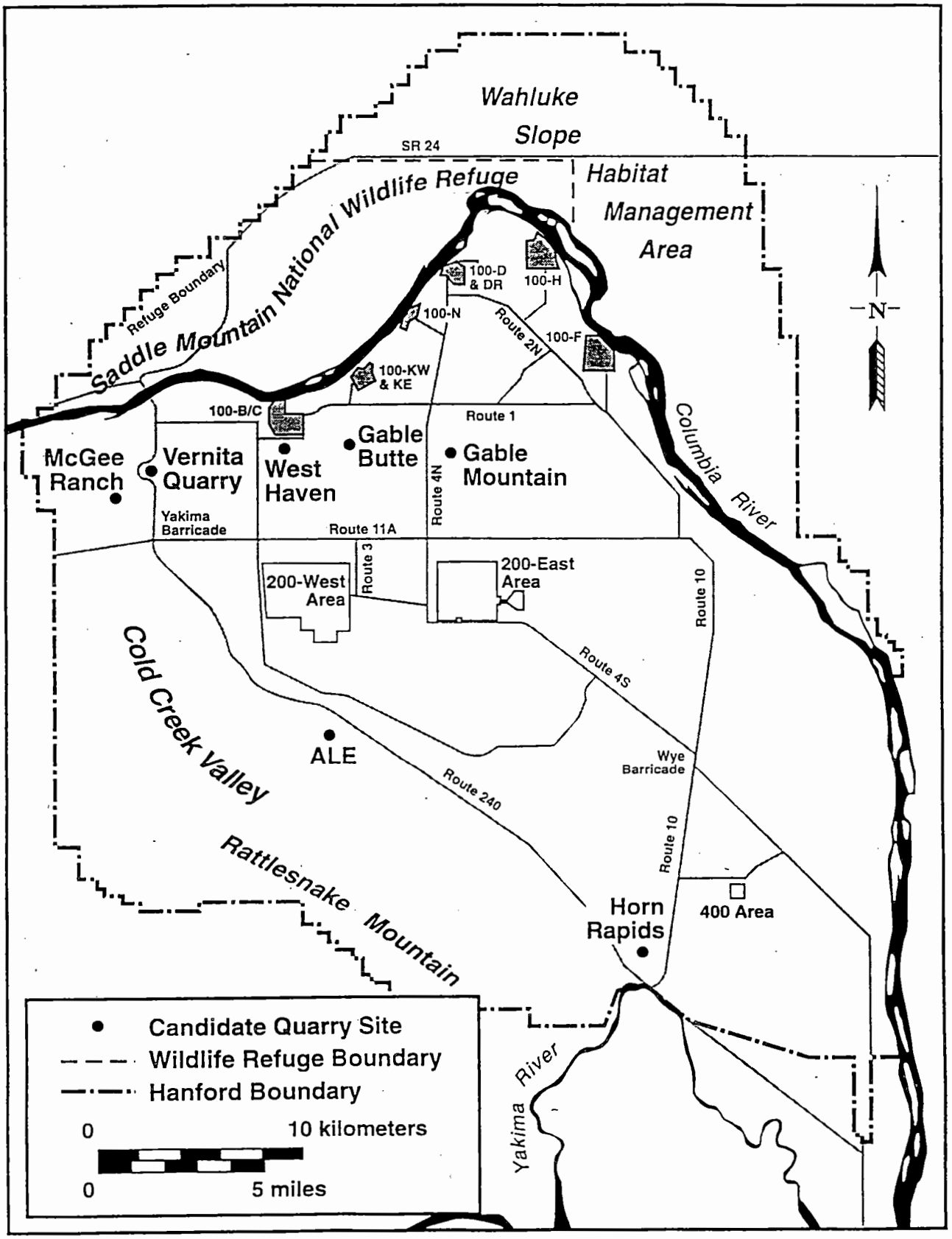


*Figure E-8. Hanford Potential Basalt Quarry Sites.*



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# Appendix F

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# F.0 Methodology for Estimating Socioeconomic Impacts

This appendix documents the methodology used to estimate the economic impacts of future land-use alternatives for the *Hanford Remedial Action Environmental Impact Statement*.

## F.1 General Methodology

Quantitative estimates of changes in nonagricultural employment, population, housing prices and housing starts, and taxable retail trade were obtained by regression analysis using Hanford employment as the key independent variable. Regression analysis uses data from historical experience to determine the statistical relationships between Hanford employment and total nonagricultural employment and between nonagricultural employment and taxable retail sales, population, and housing market conditions. These statistical relationships provide information about the impacts of future changes in employment on retail sales, population, and housing market conditions.

Each of the alternative remedial actions require specific estimates of labor hours to implement. In each case, these labor hours are translated into full-time equivalents (FTE) that are allocated uniformly over the period of performance for the individual remedial action, except for 1-year ramp up and 1-year ramp down periods at the beginning and end of the remedial action. The estimates of additional Hanford employment required to implement each remedial action are then used to project nonagricultural employment in the Richland-Kennewick-Pasco Metropolitan Statistical Area (MSA) (hereafter "Tri-Cities"). Nonagricultural employment is then used to project taxable retail sales and population. Population is used to project housing prices. Housing prices and nonagricultural employment are used to project housing starts. All equations are linear and were estimated using ordinary least squares. Data for regression analyses and results are presented in Tables F-1 through F-9.

The data presented in Tables F-1, F-3, F-5, and F-7 are based on calendar years. The data for both nonagricultural employment and taxable retail sales begin in the third quarter of 1987. Thus the third observation in the data on taxable retail sales (Table F-3) is based on taxable sales for the first quarter of 1988. There are "dummy variables" that classify specific quarters of the year. The first quarter dummy variable, therefore, has the value of one (1) in the third observation (Tables F-1 and F-3). The column labeled "Quarter" in Tables F-1 and F-3 refers to the number of the quarter in the time trend and is equivalent to the observation number.

Other impacts, which cannot be quantitatively assessed using regression analysis, are assessed qualitatively using the results of the projections as the basis for discussion.

The following sections of this appendix document the regression equations used in the quantitative assessments.

## *F.2 Employment*

The regression equation for total nonagricultural employment uses quarterly data for the third quarter 1987 to the fourth quarter 1993 and has the following explanatory variables:

X1 = Hanford FTE end-of-quarter strength
X2 = time trend
X3 = first quarter dummy variable

The time trend starts at 1 for the third quarter of 1987. Data on Hanford employment was obtained from the U.S. Department of Energy, Richland Operations Office. Data on Tri-Cities employment came from the Washington State Employment Security Department. Table F-1 shows the data used to estimate the regression equation. Table F-2 shows the results of the regression analysis.

The estimated equation is:

$$Y1 = 39909.39326 + 1.159546 \bullet X1 + 433.84021 \bullet X2 - 1638.646971 \bullet X3$$

where:

Y1 = nonagricultural employment.

## *F.3 Taxable Retail Trade*

The regression equation for taxable retail sales uses quarterly data for the third quarter 1987 to the third quarter 1993 (the latest data available at the time). The equation has the following explanatory variables:

X4 = time trend
X5 = quarterly nonagricultural employment at annual rates
X6 = first quarter dummy variable
X7 = fourth quarter dummy variable

The data on taxable retail sales was obtained from the Washington State Department of Revenue. Table F-3 shows the data used to estimate the regression equation. Table F-4 shows the results of the regression analysis.

The equation for taxable retail sales is:

$$Y2 = -68.899165 + 5.089547 \bullet X4 + 0.005126 \bullet X5 - 37.779538 \bullet X6 + 0.687021 \bullet X7$$

where:

Y2 = taxable retail sales.

## *F.4 Population*

The regression equation for population in the Tri-Cities uses annual data on population for 1980 to 1993. The explanatory variables are:

X8 = time trend
X9 = annual average nonagricultural employment, lagged 1 year

The time trend starts at 1 for 1980, although 1980 is not used in the regression because of the use of lagged employment. The data on population comes from the 1980 and 1990 U.S. Census data and the Washington State Department of Financial Management for years other than 1980 and 1990. Table F-5 shows the data used in the regression analysis and Table F-6 shows the results of the regression analysis.

The equation for population is:

$$Y3 = 58107.265102 + 358.944822 \bullet X8 + 1.465489 \bullet X9$$

where:

Y3 = population.

## *F.5 Average Home Prices*

The regression equation for the average price of a home in the Tri-Cities uses annual data for 1980 to 1993. The explanatory variables are:

X10 = time trend
X11 = population

Data on home prices was obtained from the Tri-Cities Board of Realtors. Table F-7 shows the data used to estimate the equation. Table F-8 shows the results of the regression analysis.

The equation for average home price is:

$$Y4 = -176.372436 + 0.508830 \bullet X10 + 0.001653 \bullet X11$$

where:

Y4 = average home price.

## *F.6 Housing Starts*

The regression equation for housing starts uses annual data for 1980 to 1993. The explanatory variables are:

X12 = time trend
X13 = annual average nonagricultural employment
X14 = average home price

Data on housing starts was obtained from the Home Builders Association – Tri-Cities and from construction permit data from the various jurisdictions in Benton and Franklin counties. The data are given in Table F-7. Table F-9 shows the results of the regression analysis.

The equation for housing starts is:

$$Y5 = -1921.532556 - 1.839003 \bullet X12 + 0.017375 \bullet X13 + 17.835563 \bullet X14$$

where:

Y5 = housing starts.

## *F.7 Projections*

For any given remedial action alternative, the economic projections are made as follows.

- First, the estimates of Hanford employment under the given future land-use alternative are used to project quarterly nonagricultural employment.
- Second, the projected quarterly nonagricultural employment is used to project quarterly taxable retail sales. Sales are added up for each forecast year to get annual taxable retail sales.
- Third, the quarterly projections of nonagricultural employment for each forecast year are averaged to get average annual employment for that year. Average annual employment is lagged one year and used to project population.
- Fourth, the annual population projections are used to project average annual home prices.
- Fifth, average annual home prices and average annual nonagricultural employment are used to project housing starts.

*Table F-1. Data for Employment Regression Equation, Third Quarter 1987 to Fourth Quarter 1993.*

| Hanford Employment, End of Quarter[1] | Quarter | First Quarter Dummy Variable | Nonagricultural Employment, Annual Rate per Quarter[2] |
|---|---|---|---|
| 14,500 | 1 | 0 | 57,390.00 |
| 14,100 | 2 | 0 | 57,413.33 |
| 13,500 | 3 | 1 | 54,836.67 |
| 12,900 | 4 | 0 | 56,343.33 |
| 12,400 | 5 | 0 | 55,536.67 |
| 12,200 | 6 | 0 | 55,236.67 |
| 12,100 | 7 | 1 | 55,033.33 |
| 12,300 | 8 | 0 | 57,433.33 |
| 12,700 | 9 | 0 | 58,233.33 |
| 13,000 | 10 | 0 | 58,600.00 |
| 13,300 | 11 | 1 | 59,233.33 |
| 13,800 | 12 | 0 | 63,033.33 |
| 14,000 | 13 | 0 | 62,766.67 |
| 14,200 | 14 | 0 | 62,933.33 |
| 14,400 | 15 | 1 | 61,533.33 |
| 14,800 | 16 | 0 | 64,966.67 |
| 15,000 | 17 | 0 | 64,966.67 |
| 15,100 | 18 | 0 | 65,800.00 |
| 15,500 | 19 | 1 | 64,966.67 |
| 16,000 | 20 | 0 | 68,066.67 |
| 16,100 | 21 | 0 | 67,433.33 |
| 16,200 | 22 | 0 | 67,566.67 |
| 16,500 | 23 | 1 | 66,770.00 |
| 17,200 | 24 | 0 | 69,830.00 |
| 17,300 | 25 | 0 | 70,300.00 |
| 17,800 | 26 | 0 | 70,900.00 |

[1]DOE, Richland Operations Office.
[2]Washington State Employment Security Department.

*Table F-2. Regression Equation Results for Total Nonagricultural Employment.*

**Explanatory Variables:**

X1 = Hanford FTE end of quarter strength
X2 = time trend
X3 = first quarter dummy variable

**Summary Statistics:**

| | | | |
|---|---|---|---|
| Valid cases: | 26 | Dependent variable: | Y |
| Missing cases: | 0 | Deletion method: | None |
| Total SS: | 687962801.601 | Degrees of freedom: | 22 |
| R-squared: | 0.980 | Rbar-squared: | 0.977 |
| Residual SS: | 14067971.947 | Std error of est: | 799.658 |
| F(3,22): | 351.287 | Probability of F: | 0.000 |
| Durbin-Watson: | 0.765 | | |

**Parameter Estimates:**

| Variable | Estimate | Standard Error | t-value | Prob > \|t\| | Standardized Estimate | Cor with Dep Var |
|---|---|---|---|---|---|---|
| CONSTANT | 39909.393260 | 2282.315657 | 17.486360 | 0.000 | -- | -- |
| X1 | 1.159546 | 0.188255 | 6.159439 | 0.000 | 0.373057 | 0.930673 |
| X2 | 433.840210 | 41.389688 | 10.481843 | 0.000 | 0.632551 | 0.958993 |
| X3 | -1638.646971 | 375.200028 | -4.367396 | 0.000 | -0.134217 | -0.191822 |

*Table F-3. Data for Taxable Sales Regression Equation, Third Quarter 1987 to Third Quarter 1993.*

| Quarter | Nonagricultural Employment, Annual Rate per Quarter[1] | First Quarter Dummy Variable | Fourth Quarter Dummy Variable | Taxable Retail Sales ($millions)[2] |
|---|---|---|---|---|
| 1 | 57,390.00 | 0 | 0 | 239.3 |
| 2 | 57,413.33 | 0 | 1 | 234.1 |
| 3 | 54,836.67 | 1 | 0 | 203.1 |
| 4 | 56,343.33 | 0 | 0 | 238.1 |
| 5 | 55,536.67 | 0 | 0 | 237.5 |
| 6 | 55,236.67 | 0 | 1 | 250.2 |
| 7 | 55,033.33 | 1 | 0 | 219.8 |
| 8 | 57,433.33 | 0 | 0 | 269.9 |
| 9 | 58,233.33 | 0 | 0 | 267.7 |
| 10 | 58,600.00 | 0 | 1 | 281.6 |
| 11 | 59,233.33 | 1 | 0 | 251.8 |
| 12 | 63,033.33 | 0 | 0 | 308.9 |
| 13 | 62,766.67 | 0 | 0 | 326.2 |
| 14 | 62,933.33 | 0 | 1 | 321.3 |
| 15 | 61,533.33 | 1 | 0 | 285.8 |
| 16 | 64,966.67 | 0 | 0 | 324.6 |
| 17 | 64,966.67 | 0 | 0 | 335.1 |
| 18 | 65,800.00 | 0 | 1 | 346.9 |
| 19 | 64,966.67 | 1 | 0 | 315.7 |
| 20 | 68,066.67 | 0 | 0 | 384.1 |
| 21 | 67,433.33 | 0 | 0 | 373.4 |
| 22 | 67,566.67 | 0 | 1 | 407.3 |
| 23 | 66,770.00 | 1 | 0 | 338.4 |
| 24 | 69,830.00 | 0 | 0 | 428.2 |
| 25 | 70,300.00 | 0 | 0 | 446.7 |

[1]Washington State Employment Security Department.
[2]Washington State Department of Revenue.

*Table F-4. Regression Equation Results for Taxable Retail Sales.*

**Explanatory Variables:**

X4 = time trend
X5 = nonagricultural employment
X6 = first quarter dummy variable
X7 = fourth quarter dummy variable

**Summary Statistics:**

| | | | |
|---|---|---|---|
| Valid cases: | 25 | Dependent variable: | Y |
| Missing cases: | 0 | Deletion method: | None |
| Total SS: | 107049.970 | Degrees of freedom: | 20 |
| R-squared: | 0.970 | Rbar-squared: | 0.964 |
| Residual SS: | 3176.960 | Std error of est: | 12.603 |
| F(4,20): | 163.479 | Probability of F: | 0.000 |
| Durbin-Watson: | 1.541 | | |

**Parameter Estimates:**

| Variable | Estimate | Standard Error | t-value | Prob > \|t\| | Standardized Estimate | Cor with Dep Var |
|---|---|---|---|---|---|---|
| CONSTANT | -68.899165 | 112.229577 | -0.613913 | 0.546 | -- | -- |
| X4 | 5.089547 | 1.393416 | 3.652568 | 0.002 | 0.560864 | 0.929369 |
| X5 | 0.005126 | 0.002074 | 2.471805 | 0.023 | 0.386723 | 0.962167 |
| X6 | -37.779538 | 7.591336 | -4.976665 | 0.000 | -0.246573 | -0.311973 |
| X7 | 0.687021 | 6.357809 | 0.108059 | 0.915 | 0.004484 | 0.012641 |

*Table F-5. Data for Regression Equation for Population, 1980 to 1993.*

| Year | Lagged Employment* | Population |
|---|---|---|
| 1 | n/a | 144,469 |
| 2 | 58,710 | 150,100 |
| 3 | 63,940 | 147,900 |
| 4 | 58,860 | 144,700 |
| 5 | 55,360 | 144,000 |
| 6 | 52,870 | 140,900 |
| 7 | 54,020 | 139,300 |
| 8 | 55,230 | 139,600 |
| 9 | 56,970 | 139,600 |
| 10 | 55,400 | 138,300 |
| 11 | 57,325 | 150,030 |
| 12 | 61,992 | 153,400 |
| 13 | 64,317 | 157,700 |
| 14 | 67,008 | 163,900 |

*Washington State Employment Security Department.

*Table F-6. Regression Equation Results for Population.*

**Explanatory Variables:**

X8 = time trend
X9 = lagged nonagricultural employment

**Summary Statistics:**

| | | | |
|---|---|---|---|
| Valid cases: | 13 | Dependent variable: | Y |
| Missing cases: | 1 | Deletion method: | Listwise |
| Total SS: | 756471292.308 | Degrees of freedom: | 10 |
| R-squared: | 0.803 | Rbar-squared: | 0.764 |
| Residual SS: | 149024169.369 | Std error of est: | 3860.365 |
| F(2,10): | 20.381 | Probability of F: | 0.000 |
| Durbin-Watson: | 1.700 | | |

**Parameter Estimates:**

| Variable | Estimate | Standard Error | t-value | Prob > \|t\| | Standardized Estimate | Cor with Dep Var |
|---|---|---|---|---|---|---|
| CONSTANT | 58107.265102 | 15268.262452 | 3.805755 | 0.003 | -- | -- |
| X1 | 358.944822 | 309.183323 | 1.160945 | 0.273 | 0.176063 | 0.484544 |
| X2 | 1.465489 | 0.272871 | 5.370630 | 0.000 | 0.814481 | 0.881164 |

*Table F-7. Data for Regression Equations for Average Home Price and Housing Starts, 1980 to 1993.*

| Year | Average Home Price ($ x 1000)[1] | Housing Starts[2] | Nonagricultural Employment, Average Annual Rate[3] | Population[3] |
|---|---|---|---|---|
| 1 | 65.1 | 429 | 58,710 | 144,469 |
| 2 | 73.1 | 459 | 63,940 | 150,100 |
| 3 | 66.8 | 141 | 58,860 | 147,900 |
| 4 | 64.8 | 129 | 55,360 | 144,700 |
| 5 | 62.6 | 100 | 52,870 | 144,000 |
| 6 | 60.9 | 95 | 54,020 | 140,900 |
| 7 | 60.0 | 155 | 55,230 | 139,300 |
| 8 | 59.6 | 110 | 56,970 | 139,600 |
| 9 | 58.8 | 42 | 55,400 | 139,600 |
| 10 | 59.7 | 164 | 57,325 | 138,300 |
| 11 | 68.3 | 414 | 61,992 | 150,030 |
| 12 | 78.7 | 460 | 64,317 | 153,400 |
| 13 | 93.8 | 911 | 67,008 | 157,700 |
| 14 | 106.6 | 1,200 | 69,450 | 163,900 |

[1]Tri-City Association of Realtors.
[2]Home Builders Association - Tri-Cities.
[3]Washington State Department of Employment Security.

*Table F-8. Regression Equation Results for Average Home Price.*

**Explanatory Variables:**

X1 = time trend
X2 = population

**Summary Statistics:**

| | | | |
|---|---|---|---|
| Valid cases: | 14 | Dependent variable: | Y |
| Missing cases: | 0 | Deletion method: | Listwise |
| Total SS: | 2632.637 | Degrees of freedom: | 11 |
| R-squared: | 0.938 | Rbar-squared: | 0.926 |
| Residual SS: | 163.884 | Std error of est: | 3.860 |
| F(2,11): | 82.852 | Probability of F: | 0.000 |
| Durbin-Watson: | 1.526 | | |

**Parameter Estimates:**

| Variable | Estimate | Standard Error | t-value | Prob > \|t\| | Standardized Estimate | Cor with Dep Var |
|---|---|---|---|---|---|---|
| CONSTANT | -176.372436 | 22.321588 | -7.901429 | 0 | -- | -- |
| X1 | 0.508830 | 0.289834 | 1.755588 | 0.107 | 0.149578 | 0.566997 |
| X2 | 0.001653 | 0.000158 | 10.435336 | 0 | 0.889102 | 0.959326 |

*Table F-9. Regression Equation Results for Housing Starts.*

**Explanatory Variables:**

X1 = time trend
X2 = nonagricultural employment
X3 = average home price

**Summary Statistics:**

| | | | |
|---|---|---|---|
| Valid cases: | 14 | Dependent variable: | Y |
| Missing cases: | 0 | Deletion method: | None |
| Total SS: | 1516079.500 | Degrees of freedom: | 10 |
| R-squared: | 0.947 | Rbar-squared: | 0.931 |
| Residual SS: | 80995.458 | Std error of est: | 89.997 |
| F(2,11): | 59.060 | Probability of F: | 0.000 |
| Durbin-Watson: | 1.598 | | |

**Parameter Estimates:**

| Variable | Estimate | Standard Error | t-value | Prob > \|t\| | Standardized Estimate | Cor with Dep Var |
|---|---|---|---|---|---|---|
| CONSTANT | -1921.532556 | 436.408773 | -4.403057 | 0.001 | -- | -- |
| X1 | -1.839003 | 7.255130 | -0.253476 | 0.805 | -0.022527 | 0.537834 |
| X2 | 0.017375 | 0.011346 | 1.531275 | 0.157 | 0.261208 | 0.920527 |
| X3 | 17.835563 | 4.208053 | 4.238435 | 0.002 | 0.743227 | 0.966384 |

# Appendix G

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# G.0 Air Quality Impacts of Remediation Alternatives

Remedial activities such as excavation and capping can generate substantial amounts of fugitive dust which, when airborne, would drift in whatever direction the wind happens to be blowing at the time. As the dust travels downwind, its concentration in air decreases due to dispersion of dust particles into the air mass. The rate at which dispersion occurs depends largely on meteorological conditions such as wind speed and general atmospheric stability. As dispersion continues, the concentration continues to decrease and eventually becomes insignificant. The air quality impacts described in Chapter 5.0 were estimated by simulation of these basic sequences. Emission rates were estimated from published material, and downwind concentrations were obtained by running a simplified, screening-level dispersion model. The procedures and simplifying assumptions employed to estimate air quality impacts are described below.

## G.1 Downwind Concentrations of Airborne Particles

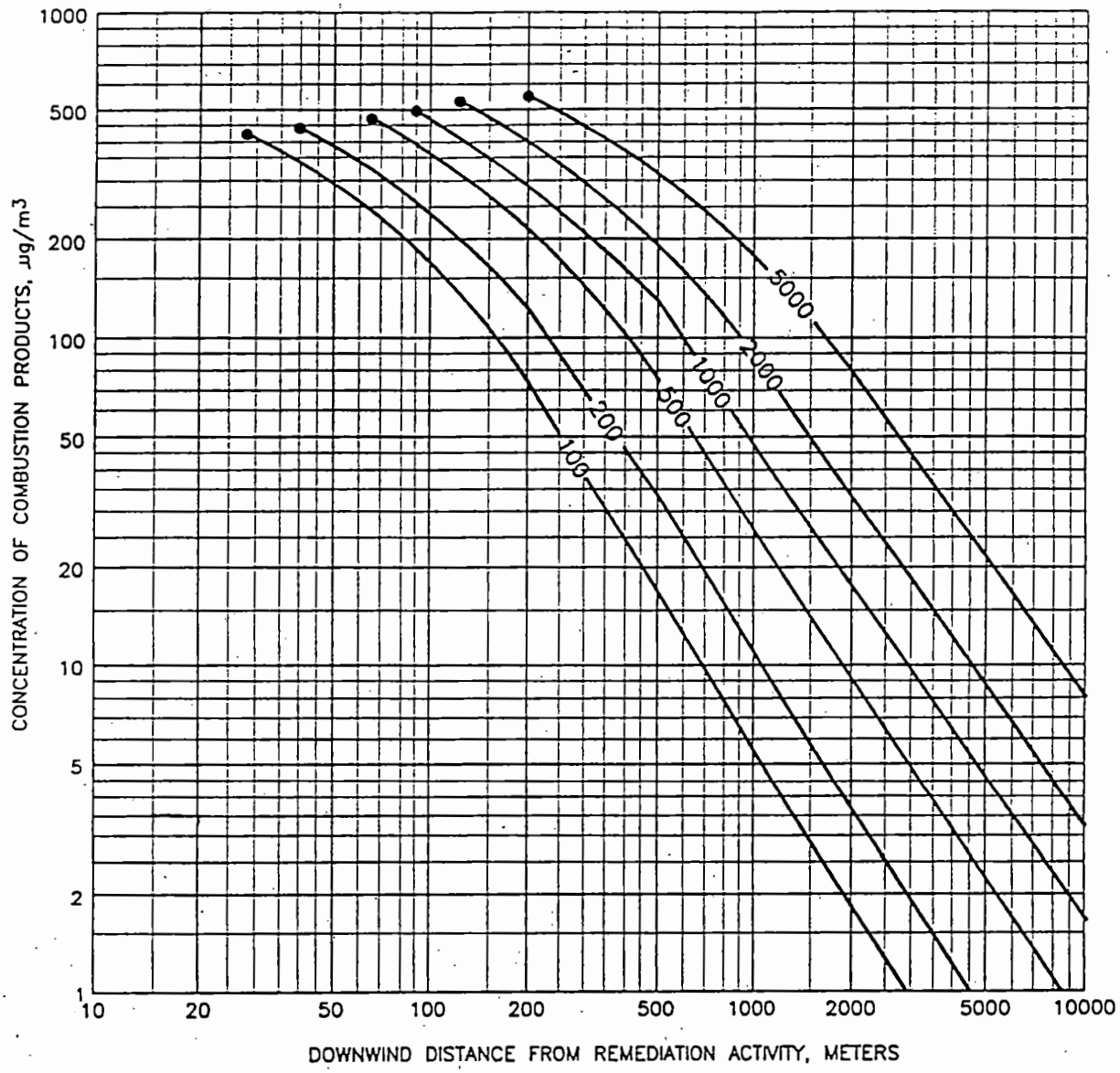
Emission rates for remedial activity involving excavation were based on a conceptual 0.4-ha (1-ac) site, where 450,000 kg (1 million lb) per day are excavated. Dust-generating equipment on the site was assumed to include backhoe, dozer, loader, scraper, and trucks traveling on unpaved roads in the immediate vicinity. Emission rates of fugitive dust from these sources, and reentrainment of dust from disturbed soil areas, were calculated from equations in *Air/Superfund National Technical Guidance Study Series, Volume II-Estimation of Baseline Air Emissions At Superfund Sites* (EPA 1989). Total emissions of respirable ($PM_{10}$) dust particles from the conceptual site were estimated to be 44 kg (96 lbs) per day, which compares favorably to the emission factor for "heavy construction operations" cited in Publication AP-42: *Compilation of Air Pollutant Emission Factors - Volume I* (EPA 1985a).

Scaling factors were used to estimate emissions and affected areas associated with other rates of soil excavation activity. For example, emissions from excavation of 907,000 kg (2 million lb) per day rather than 450,000 kg (1 million lb) per day (scaling factor = 2) were assumed to be 87 kg (192 lbs), and the affected area was assumed to be 0.8 ha (2 ac).

Concentrations at locations downwind were estimated, using the SCREEN2 dispersion model (EPA 1981). To facilitate execution of the model, simplifying assumptions were made about meteorological conditions at the Site. Atmospheric stability was assumed to be Class D, and the wind speed was assumed to be 5 m/s (16 ft/s), both of which are reasonably representative of daytime conditions at the Site (Stone et al. 1983). Plume depletion by deposition and gravitational settling was not performed by the model.

Using these procedures and assumptions, a "working graph" (Figure G-1) was constructed, enabling the user to pick off downwind concentrations of interest without performing calculations. For example, the estimated concentration of dust 200 m (656 ft) downwind from a 907,000 kg (2 million lb) per day excavation site is about 500 $\mu g/m^3$.

*Figure G-1. Concentration of Dust Due to Excavation of Soil, 100,000 to 5 Million Kg (100 to 5,000 Tons) per Day.*




NOTE:

THIS GRAPH SHOWS THE ESTIMATED CONCENTRATIONS OF COMBUSTION PRODUCTS FROM EARTH MOVING EQUIPMENT. THE COMBUSTION PRODUCTS OF INTEREST ARE CARBON MONOXIDE, NITROGEN OXIDES, TOTAL SUSPENDED PARTICULATES (TSP), AND SULFUR OXIDES. THE CONCENTRATIONS SHOWN ARE FOR CARBON MONOXIDE. TO CONVERT TO OTHER POLLUTANTS, MULTIPLY BY THE FOLLOWING FACTORS: FOR NITROGEN OXIDES, 1.55; FOR TSP, 0.15; FOR SULFUR OXIDES, 0.21. FOR EXAMPLE, THE ESTIMATED CONCENTRATION OF CARBON MONOXIDE 600 METERS DOWNWIND FROM A 1000 TON/DAY EXCAVATION SITE IS 100 $ug/m^3$, AS SHOWN ABOVE. ESTIMATED CONCENTRATIONS OF OTHER POLLUTANTS ARE: NITROGEN OXIDES – 155 $ug/m^3$; TSP – 15 $ug/m^3$; SULFUR OXIDES – 21 $ug/m^3$.

For assessment of the significance of downwind concentrations, two concentrations were deemed to be of interest:

- the highest on-site concentration (i.e., the concentration immediately downwind from the area of soil-handling activities)
- the highest off-site concentration (i.e., the concentration at the nearest location where members of the public could reside).

In the air quality sections of Chapter 5.0, these two concentrations are presented and compared to applicable air quality standards.

## *G.2 Downwind Concentrations of Airborne Radionuclides*

Downwind concentrations were calculated for cesium-137, plutonium-239/240, strontium-90, and uranium-238. The concentrations used for analysis of air quality impacts for excavation in the Columbia River geographic area were the highest values reported in Table A.6 or Tables A.15 through A.18 (for the N-Springs shoreline) in Woodruff and Hanf (1993). Soil concentrations used for analysis in the other geographic areas were the highest soil concentration identified in the *Hanford Remedial Action Environmental Impact Statement* (EIS) database for the 100, 200, and 300/400 Areas. Sources for this database are identified in Appendix B of this EIS. The soil concentrations used for this analysis are provided in Table G-1.

***Table G-1. Solid Waste Radionuclide Concentrations.***

| Geographic Area | Radionuclide concentration (pCi/g) | | | |
|---|---|---|---|---|
| | Cesium-137 | Plutonium-239/240 | Strontium-90 | Uranium-238 |
| Columbia River | 6.0 E-01 | 1.0 E-02 | 2.0 E+00 | 1.1 E+00 |
| Reactors on the River | 5.8 E+04 | 5.7 E-02 | 4.5 E+04 | 2.0 E+02 |
| Central Plateau | 8.5 E+07 | 1.5 E+08 | 4.2 E+07 | 2.0 E+05 |
| All Other Areas | 1.1 E+05 | 4.0 E+02 | 1.1 E+07 | 3.7 E+03 |

In all instances, the concentration of radionuclides in airborne particulate matter was assumed to be the same as the concentration at the source. For example, if the concentration of strontium-90 in surface soil at a capping site was 0.300 pCi/g and the estimated concentration of dust 200 m (656 ft) downwind was 500 $\mu g/m^3$, then the concentration of airborne strontium-90 at this location was assumed to be $1.5 \times 10^{-4}$ $pCi/m^3$.[1]

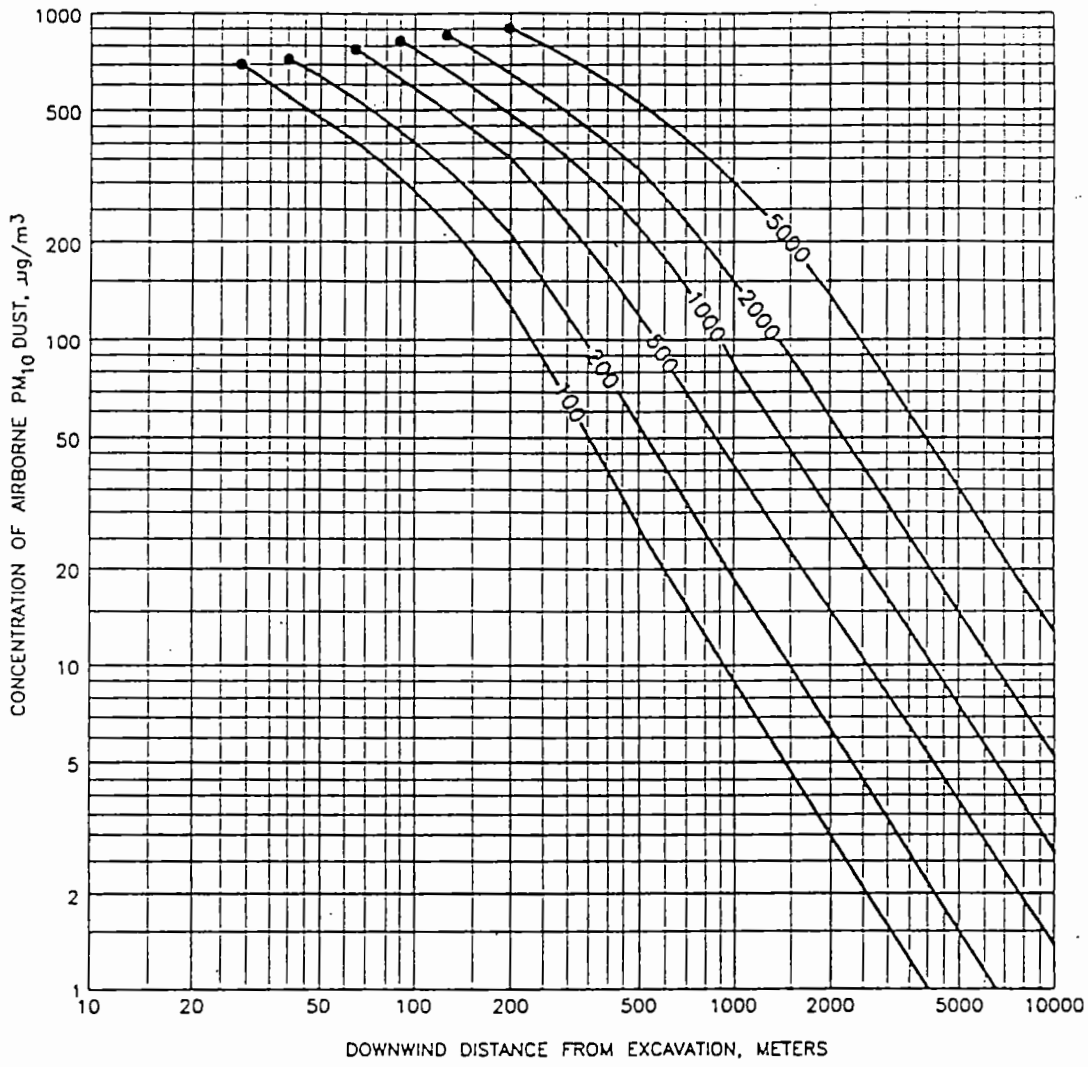
[1] $(0.300\ pCi/g) \times (1.0 \times 10^{-6}\ g/\mu g) \times (500\ \mu g/m^3) = 1.5 \times 10^{-4}\ pCi/m^3$.

## *G.3 Downwind Concentrations of Combustion Products*

Estimates of emission rates from earth moving equipment were obtained from Publication AP-42: *Compilation of Air Pollutant Emission Factors – Volume 2* (EPA 1985b). For example, the emission rate of nitrogen oxides from all equipment at the conceptual 450,000 kg (1 million lb) per day site described above was estimated to be 40 kg (89 lbs) per day. Using AP-42, similar estimates were made for carbon monoxide, TSP, and sulfur oxides. Scaling factors were used to estimate emission rates for levels of activity other than 450,000 kg (1 million lb) per day. Using these emission rates and the assumptions previously described, downwind concentrations were estimated by the SCREEN2 dispersion model. The results are presented on Figure G-2, which enables the user to estimate downwind concentrations of interest without performing calculations.[2]

[2]Downwind concentrations shown on Figures G-1 and G-2 are estimates based on typical meteorological conditions, and could be substantially greater or lesser during unusual meteorological conditions such as very high or very low wind speed and extremes of general atmospheric stability or instability.

*Figure G-2. Concentration of Combustion Products from Equipment for Handling 100,000 to 5 Million Kg (100 to 5,000 Tons).*



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# Appendix H

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# H.0 Cost and Physical Impact Assessment

## H.1 Introduction

This appendix describes the methodology to estimate costs, resource requirements, and impacts on the environment caused by the No-Action and future land-use alternatives. The discussion includes methods to estimate contaminated soil and material volumes and the impacts of removing, transporting, or stabilizing the waste.

## H.2 Description of Remedial Actions

The remedial actions described below were derived from the assumptions used in Westinghouse Hanford Company (WHC) *Preconceptual Baseline Cost Estimates for the Remediation of Hanford Past Practices* (USACE 1994), except for the Central Plateau, where the assumptions in Bechtel Hanford Inc.'s baseline planning documents were used. These descriptions emulate the current planning basis for the Richland Environmental Restoration Project.

### H.2.1 Excavation of Waste Sites

Future land-use alternatives for Reactors on the River and All Other Areas include full excavation and partial excavation of waste sites and pipelines. Sites addressed by excavation would include past-practice site operable units; concrete stacks; and treatment, storage, and disposal (TSD) sites. The activities associated with excavation of waste sites are as follows.

- *Mobilization and preparatory work.* The site work equipment identified in Table H-1 would be mobilized and temporary facilities and utilities established (e.g., water, power, telephone, and sewer). A site survey would be conducted, a 2-m (7-ft) high security fence would be set up along the site perimeter, and an equipment and vehicle decontamination pad would be constructed. If piping is to be removed, all piping lines would be located prior to excavation.

- *Monitoring, sampling, and analysis.* Real-time monitoring would be conducted as excavation proceeds. Samples would be taken at a rate of 1 sample every 2.7 $m^3$ (3.5 $yd^3$) for 15% of the contaminated material. Ninety percent of the samples would be analyzed onsite in a mobile laboratory and 10% would be analyzed in an offsite laboratory. Sample quantities would be increased by 10% for quality assurance/quality control (QA/QC) purposes. One sample would be taken per 465 $m^2$ (5,000 $ft^2$) for site certification purposes.

- *Surface water collection and control.* Silt fencing would be installed for erosion control.

- *Solids collection and containment.* Material would be excavated by hydraulic excavator and front end loader. Uncontaminated soil would be stockpiled by bulldozer. Above- or below-grade structures would be demolished. Removed piping would be downsized using a hydraulic hammer. Contaminated soil would be loaded into 27-$m^3$ (36-$yd^3$) containers (filled to 24 $m^3$ [32 $yd^3$]) using a front end loader (swell factor is 25%). Demolition and piping waste would also be loaded into 27-$m^3$ (36-$yd^3$) containers (filled to 24 $m^3$ [32 $yd^3$])

using a front end loader (swell factor of 60%). Waste containers would be spray decontaminated and transported by truck to a railhead or truck staging area. Each container would be offloaded by a gantry crane or a special forklift. An empty container would be placed on the truck for return to the waste site. Dust suppression during excavation would be provided by waterspray using water transported by water truck. The embankment and slope would be shaped using a grader for final site grading.

- *Site restoration.* Stockpile and borrow soil would be spread over the site. Borrow material is assumed to be located on or near the Hanford Site. The area would be revegetated with native species and the site irrigated for six months.

- *Demobilization.* Multiple sites would be remediated at one time and demobilization costs would be shared among the sites. Costs would include removal of temporary utilities, fencing, and decontamination facilities.

### *H.2.2 Excavation of the Columbia River Shoreline Sediment*

Remedial actions planned for the Columbia River shoreline and the river discharge pipeline outfall structures are as follows:

- excavation of shoreline soils intersected by contaminated groundwater plumes along the Hanford Reach opposite the 100 Areas

- removal of river discharge pipelines.

Removal of contaminated soils adjacent to the 100 Areas would require the excavation of 9,568,000 loose cubic meters (LCM) (12,534,000 loose cubic yards [LCY]) of soil along the riverbank (DOE 1994). Contaminated soil excavation would be accomplished using earthmoving equipment and cofferdams. There is also contamination in the vicinity of the 300 Area shoreline, however, costs for remediation of the portion of the Columbia River adjacent to the 300 Area are not included. However, these costs could be significant.

### *H.2.3 Capping of Waste Sites*

Waste sites capping would include the following operations.

- *Mobilization and preparatory work.* Site work equipment identified in Table H-2 would be mobilized, and temporary facilities and utilities (water, power, telephone, and sewer) would be established. A site survey would be conducted, and a 2-m (7-ft) high security fence would be set up along the site perimeter. A decontamination pad for equipment and vehicles would also be constructed.

- *Monitoring, sampling, and analysis.* Radiation monitoring would be conducted as the work proceeds.

- *Surface water collection and control.* Silt fencing would be installed.

- *Solids collection and containment.* Contour (grading) fill, and other barrier materials would be spread over the waste site (Tables H-3 and H-4). The area to be capped would include the waste unit plus a 12-m (40-ft) area along each side. Capping would include access road construction using road base aggregate. Dynamic compaction of the waste site would consist of two crane drops of weight on a 1.2-m (4-ft) grid spacing (128 drops/day). Water spraying would be used during dynamic compaction to inhibit airborne contamination. The cap area would be injection grouted (depth of grout is 7.6 m [25 ft]; 1 hole per 7.6 m, 25 ft of grid spacing).

- *Site restoration.* The site would be revegetated with native species and irrigated for 6 months.

- *Demobilization.* Multiple sites would be cleared at the same time, and demobilization costs would be shared among the sites. Costs include removal of temporary utilities, fencing, and decontamination facilities.

### *H.2.4 Decommissioning of Surplus Facilities*

Several above- and below-grade structures require decommissioning activities, which are described in the following sections.

*H.2.4.1 Removal of River Discharge Pipelines.* Activities associated with removal of the underwater river discharge pipeline structures are as follows.

- *Mobilization and preparatory work.* A sheet piling cofferdam would be installed from a river-going barge. A temporary security fence would be installed. Other temporary facilities that would be constructed include a staging area, mechanical repair area, and decontamination area. The equipment listed in Table H-5 would also be mobilized.

- *Dismantlement.* The sediment covering the river discharge lines would be excavated using a clam bucket mounted from a river-going barge. The river discharge lines would be removed using a 50-ton crane mounted on a river-going barge. Concrete tie downs for river discharge line piping would be demolished in-place.

- *Solids collection and containment.* The contaminated pipe would be loaded into 38-$m^3$ (50-$yd^3$), Type 2 Containers. One-hundred percent of the river discharge line pipe is assumed to be contaminated. The containers would be spray decontaminated prior to transport, and transported by truck to a railhead for offloading by gantry crane or forklift. An empty container would then be placed on the truck and returned to the waste site.

- *Disposal.* The river discharge line concrete would be hauled from the staging area to an approved landfill. The low-level waste (LLW) containers would be transported to an approved LLW burial ground.

- *Site restoration.* The soil that is stockpiled on the barge would be placed back into the river, and the cofferdam removed.

- *Demobilization.* River discharge line removal and hauling equipment would be demobilized, and security fencing and all temporary facilities removed.

*H.2.4.2 Decommissioning of Contaminated Buildings and Noncontaminated Buildings.* Both contaminated and noncontaminated buildings would be demolished. Buildings scheduled for decommissioning are listed in Appendix A.

The following remedial activities would apply to contaminated and noncontaminated buildings.

- *Mobilization.* An asbestos monitoring crew would be mobilized, and building services restored. Roof and building support systems would be repaired, as necessary, to ensure worker safety during demolition. Lighting, netting, and high efficiency particulate air filter units would be installed. The equipment listed in Table H-6 would be mobilized.

- *Monitoring, sampling, and analysis.* Air monitoring and sampling would be conducted during asbestos removal operations. Contaminated soil, concrete, and masonry samples would be taken by demolition crews (1 sample per 30 $m^3$ [40 $yd^3$]). Ninety percent of the samples would be analyzed in an on-site mobile laboratory, and 10% would be analyzed in an off-site laboratory.

- *Decommissioning and dismantlement.* All contaminated and noncontaminated buildings would be assumed to have interior asbestos. The asbestos floor and ceiling tiles, pipe insulation, and duct insulation would be removed, packaged, and moved to a staging area. If there is exterior asbestos (siding and roofing shingles), it would be removed, packaged, and moved to a staging area. All hazardous materials would be removed from the building (5% of building area requires hazardous materials removal). The building and remaining equipment surfaces would be decontaminated by scabbling and vacuum blasting. A final radiation survey would be performed. The masonry walls and concrete and steel building structure would be dismantled. Building materials would be downsized, wrapped in plastic, and moved to a staging area. Equipment would be dislodged and detached, as necessary; downsized; wrapped in plastic; and moved to a staging area.

- *Solids collection and containment.* Soil would be excavated by backhoe. Uncontaminated soil would be stockpiled by bulldozer, and dust suppression would be provided by waterspray. Contaminated concrete (75%), masonry (75%), and soil (5%) would be loaded into 38-$m^3$ (50-$yd^3$) containers using a front end loader. Containers would be spray decontaminated and transported by truck (16 km [10 mi]) to a railhead staging area.

- *Disposal.* Concrete rubble (25%) and steel (100%) would be hauled to a recycling plant (16 km [10 mi]). Pipe, equipment, ductwork, and asbestos would be transported from the building staging area to an approved landfill located on-site. If the building is noncontaminated, 75% of the total concrete and masonry volume would be hauled to an approved landfill.

- *Site restoration.* Stockpile and borrow soil would be spread and compacted, and the area revegetated with native species.

- *Demobilization.* The asbestos air monitoring crew and site hauling and work equipment would be demobilized. All temporary facilities would be removed.

*H.2.4.3 Decommissioning of Water Tunnels.* The following remedial activities would apply to the decommissioning of water tunnels.

- *Mobilization and preparatory work.* Temporary staging areas, a mechanical repair area, and decontamination area would be constructed. The same types of equipment would also be required for decommissioning of contaminated buildings.

- *Solids collection and containment.* Uncontaminated soil (95%) and contaminated soil (5%) would be excavated by backhoe. Uncontaminated soil would be stockpiled by bulldozer, and dust suppression provided by waterspray. Contaminated concrete (75%), masonry (75%), and soil would be loaded into 38-$m^3$ (50-$yd^3$) containers using a front-end loader. Containers would be spray decontaminated and transported by truck to a railhead staging area.

- *Dismantlement.* The concrete tunnel structure would be dismantled and piping removed. Concrete would be turned into rubble and hauled (25% of volume) to a recycling plant.

- *Disposal.* Water tunnels piping would be loaded and hauled to an approved landfill. Contaminated concrete, masonry, and soil would be hauled to a railhead.

- *Site restoration.* Stockpile and borrow soil would be spread and compacted and the area revegetated with native species.

- *Demobilization.* Security fencing and other temporary facilities would be removed.

*H.2.4.4 Removal of Concrete Stacks.* Material volumes and costs for excavation and capping of sites containing concrete stacks are included in the *Hanford Remedial Action Environmental Impact Statement* (EIS). The actions for stack removal are as follows.

- *Mobilization and preparatory work.* The equipment listed in Table H-7 would be mobilized.

- *Monitoring, sampling, and analysis.* Representative smear samples would be taken from the stack.

- *Dismantlement.* Hinges would be formed on the concrete stack; concrete and rebar would be removed and holes drilled. A blast shield would be erected and explosives loaded and detonated.

- *Solids collection and containment.* For alternatives requiring removal of a concrete structure, the contaminated concrete stack would be made into rubble and loaded into 38-$m^3$ (50-$yd^3$), Type 2 Containers. For alternatives that require capping, local borrow would be spread and compacted to construct an above-grade trench in which the stack would fall. The stack would be toppled, and the trench and associated waste site capped.

- *Site restoration.* Stockpile and borrow soil would be spread over the site, and the site revegetated with native species.

### *H.2.5 Groundwater Pump-and-Treat*

Groundwater pump-and-treat technology would be applied to the remediation of groundwater operable units. The remedial actions that would be undertaken are briefly described in the following.

- Monitoring, sampling, and analysis. The approach would be to conduct real-time monitoring of the groundwater as remediation proceeds. Samples would be taken at a rate of 1 sample for every 760 $m^3$ (1,000 $yd^3$) of feed material. Ninety percent of the samples would be analyzed on-site in a mobile laboratory, 10% would be analyzed in an off-site laboratory. Sample quantities would be increased by 10% for QA/QC purposes.

- Groundwater collection and control. Extraction wells would be drilled and constructed. Pumped water would be treated using a combination of reverse osmosis, ion exchange, and enhanced oxidation for removal of contaminants.

- Disposal. For purposes of this analysis, all treated water is assumed to be discharged directly into the Columbia River.

## *H.3 Volume Assessment Methodology*

The methodology for calculating the volumes of materials to be excavated or moved, the amount of water to be pumped and treated, and the associated areas of disturbance is described in the following sections.

### *H.3.1 Full Excavation*

Full excavation includes overburden removal and access ramp construction. The only material removed from the site would be contaminated soil. Clean material would be stockpiled adjacent to the site for use s backfill.

Excavation volumes are the key parameter for cost, area, and impact analyses. Excavation depth is based on the site area and an angle of repose. For the most part, this angle of repose would provide for excavation to 1.5 m (5 ft) below the construction depth. This is because transuranic and most other radiological wastes tend not to migrate any further (WHC 1993); however, if liquid contamination is deeper than this, it is not included in the volumes.

*H.3.1.1 Approach.* The information to calculate volumes is based on a 100 and 300 Areas waste volume study by WHC (1994a). The models developed for this study are based on conceptual design studies for the 100-B/C Area remediation (WHC 1993). The conceptual design study uses field derived information on actual waste volumes, disturbed areas, depths, and other essential parameters. The waste volume study then takes information from the conceptual design studies plus site knowledge and modifies the values in the Waste Information Data System (WIDS).

Models developed for this EIS emulate calculations for the WHC waste volume study. Volumes are calculated on a waste-site-by-waste-site basis. The source data is the raw WIDS data because the WIDS data set is site-wide and reproducible.

The models to calculate excavated volumes cover three types of sites. The first type addresses cribs and other engineered structures (e.g., structures with solid walls so that a plume would not leak out from the sides). The second type addresses earthen structures, such as trenches and ponds. The third type of site addresses everything else.

WHC data was run through the models to verify that the resulting values are in agreement. After being validated, the models were rerun using WIDS data. The results of the analysis form the basis for the cost and geographic information systems (GIS) impact simulations.

*H.3.1.2 Model Description.* Assumptions are compiled by site type. Rules were developed for sites that lacked dimensions and depths based on averages found in the waste volume study (WHC 1994a) and conceptual design studies (WHC 1993). Three models were devised that estimate soil volumes (contaminated and noncontaminated) associated with the different site types. The variables identified in Table H-8 are used in the volumetric modeling.

All three models require five given variables to run; these are: x1, y1, z1, z2, and z3. Data for the variables is extracted from the fields in WIDS.MASTER (identified in Table H-9).

The variable z2 is assumed to equal 5. If variables z1 and z3 are not populated in WIDS.MASTER, they are assumed to equal zero. To populate the variables x1 and y1, six steps are followed using WIDS.MASTER.

STEP 1: If x1 and y1 are populated, the values were used.

STEP 2: If only x1 or y1 are populated, then x1 = y1 or y1 = x1.

STEP 3: If x1 or y1 are not populated, but there is an area, then the x1 and y1 values are equal to the square root of the area.

STEP 4: If x1 or y1 or area are not populated, but there is a diameter, then the x1 and y1 values are equal to: {sqrt [(diameter/2)•(diameter/2)•(3.14)]}.

STEP 5: If x1 or y1 or area or diameter are not populated, then the average for the site type is used for the x1 and y1 values.

STEP 6: For the Reactors on the River area, if site type = 12, then x1 and y1 are multiplied by 1.6.

Once the five variables (x1, y1, z1, z2, and z3) are populated, the models are applied to derive the remaining variables. The site type determines which model is used. A key to the selected model and site type is presented in Table H-10.

*H.3.1.3 Model Equations for Full Excavation*. The following equations are used to derive volumes for full excavation for the Unrestricted Future Land-Use Alternative for the Columbia River and Reactors on the River:

Model 1

If site type = 1*, 3, 4, 7, 10, 11, 12, 15, 16 17, 18, 19, 20, 21, 33, 36, 40, 41, 43, 44, 45, 48, or 49 then use Model 1 (* if description was Crib).

```
x1,y1,z1,z2,z3 = Given

    a = 7.5 (unless given in WIDS.MASTER)
    m = 1.5

    x2 = x1 + (2•a)
    y2 = y1 + (2•a)

    X = x2 + (2•m•Z)
    Y = y2 + (2•m•Z)
    Z = z1 + z2 + z3

    Vcs = (x1•y1•z1) + (1/6) • z2 [x2•y2 + (y2+y1)•(x2+x1) + x1•y1]

    Vdem = Vcs • 0.14

    Vramp

    IF SITE TYPE <>3 OR <>7 OR <> 44 OR <>48
        IF Z >= 15 AND y1 >= 20
            Vramp =((400 • Z • Z) - (60 • Z • Z))/2
    END IF
    IF SITE TYPE = 3 AND z1 >=78
        Vramp = 196,520
        ELSE
        Vramp = 0
    END IF
    IF SITE TYPE = 7 OR = 44 OR = 48
        Vramp = 0

    Vtot = ((1/6) • Z (x2•y2 + (y2+Y)•(x2+X) + X•Y)) + Vramp
    Vncs = Vtot - Vcs
    Vswell = Vncs • 1.18
```

Model 2

If site type = 1*, 2, 5, or 6 then use Model 2 (* if description was Crib/Trench).

```
x1,y1,z1,z2,z3 = Given

    a = 7.5

    Vramp

    IF Z >= 15 AND y1 >= 20
        Vramp =((400 • Z • Z) - (60 • Z • Z))/2
        ELSE
        Vramp = 0
```

```
IF SITE TYPE = 2 OR 5

    m = 1
    m2 = 1.5

    x2 = x1 + (2•z1)
    y2 = y1 + (2•z1)
    Z = z1 + z2 + z3

    X = x2
    Y = y2

    XX = x2 + (2•Z•m2)
    YY = y2 + (2•Z•m2)

    Vcs = (x2•y2•z1) + (x2•y2•z2) - ((z1/6) • (x1•y1 + (y2 + y1) • (x2 + x1) + x2•y2))
    Vdem = Vcs • 0.14
    Vtot = ((Z/6) • (x2•y2 + (y2 + YY) • (x2 + XX) + XX•YY)) + Vramp
    Vncs = Vtot - Vcs
    Vswell = Vncs • 1.18

IF SITE TYPE = 1

    m = 0.65
    m2 = 1.5

    x2 = x1
    y2 = y1
    Z = z1 + z2 + z3

    X = x2 + (2•z1•m)
    Y = y2 + (2•z1•m)

    XX = X + (2•Z•m2)
    YY = Y + (2•Z•m2)

    Vcs = (X•Y•z1) + (X•Y•z2) - ((z1/6) • (x1•y1 + (Y + y1) • (X + x1) + X•Y))
    Vdem = Vcs • 0.14
    Vtot = ((Z/6) • (X•Y + (Y + YY) • (X + XX) + XX•YY)) + Vramp
    Vncs = Vtot - Vcs
    Vswell = Vncs • 1.18

IF SITE TYPE = 6

    m = 1.0
    m2 = 1.5
    x2 = x1 + (2•z1•m)
    y2 = y1 + (2•z1•m)
    Z = z1 + z2 + z3
    X = x2
    Y = y2
    XX = x2 + (2•Z•m2)
    YY = y2 + (2•Z•m2)

    Vcs = (x2•y2•z1) + (x2•y2•z2) - ((z1/6) • (x1•y1 + (y2 + y1) • (x2 + x1) + x2•y2))
    Vdem = Vcs • 0.14
    Vtot = ((Z/6) • (x2•y2 + (y2 + YY) • (x2 + XX) + XX•YY)) + Vramp
    Vncs = Vtot - Vcs
    Vswell = Vncs • 1.18
```

Model 3

If site type = 8, 9, 13, 28, 29, 31, 34, 35, 38, 39, or 46 then use Model 3.

```
x1,y1,z1 = Given

    a = 0
    z2 = 0
    z3 = 0
    m = 1.0
    m2 = 1.5

    Vramp

    IF Z >= 15 AND y1 >= 20
        Vramp =((400 • Z • Z) - (60 • Z • Z))/2
        ELSE
        Vramp = 0

    zzz3

    IF SITE TYPE = 8 OR =9 OR = 38 OR = 39 OR = 46
        zzz3 = 4
        ELSE
        zzz3 = 0

    x2 = x1
    y2 = y1
    Z = z1 + z2 + z3

    X = x1 + (2•m•z1)
    Y = y1 + (2•m•z1)

    XX = x1 + (2•m2•z1)
    YY = y1 + (2•m2•z1)

    xxx2 = X + (2•zzz3•m2)
    yyy2 = Y + (2•zzz3•m2)

    Vob = (zzz3/6)•(yyy2•xxx2 + (Y + yyy2) • (X + xxx2) + X•Y)
    Vcs = ((z1/6) • (x1•y1 + (y1 + Y) • (x1 + X) + X•Y))
    Vdem = Vcs • 0.14
    Vtot = ((Z/6) • (x1•y1 + (y1 + YY) • (x1 + XX) + XX•YY)) + Vramp + Vob
    Vncs = Vtot - Vcs
    Vswell = Vncs • 1.18
```

### *H.3.2 Partial Excavation*

Partial excavation involves removal of the top 4.6 m (15 ft) of contaminated waste and material. This assumption was used to estimate excavation volumes under the Restricted Future Land-Use (R1) Alternatives. Once again, excavation volumes are the key parameter for all the cost, area, and impact analysis.

The basis for partial excavation is the Model Toxic Control Act (MTCA) (1992) regulations. For planned industrial sites, the MTCA regulations allow for excavation up to 4.6 m (15 ft) (WAC 173-340-740 [6][c]) if: (1) there is a lack of effective remediation technologies or only marginal environmental benefits would be achieved by more stringent remediation, and (2) the remediation would provide for institutional controls in accordance with WAC 173-340-440.

Partial excavation requires that overburden be removed and ramps constructed to allow access to the excavated area. Only contaminated material would be removed from a site. Clean material would be stockpiled adjacent to the site for use as backfill.

*H.3.2.1 Approach.* The methodology for calculating partial excavation volumes is performed on a waste site by waste site basis using the same models as for full excavation. The same sources of information are used, however, not all wastes or waste sites are excavated. If the depth of the waste deposit was 4.6 m (15 ft) or greater, then the decision is not to excavate. If any portion of the waste deposit and associated contaminated soil was less than 4.6 m (15 ft), then only the portion above 5 m (15 ft) is excavated. If the depth of the waste deposit is less than 4.6 m (15 ft), then the total site is excavated. In general, the areal extent of the excavation is sufficient to maintain a slope of 34 degrees to the bottom of the excavation.

Assumptions are compiled by site type. Rules were developed for sites that lacked dimensions and depths. In general, the dimensions are based on averages found in WHC (1994a, 1993).

*H.3.2.2 Model Equations for Partial Excavation.* The following equations are used to estimate volumes for partial excavation.

<u>Model 1</u>

Partial excavation for Model 1 differs from full excavation in that the partial excavation assumes excavation down to a maximum depth of 15 ft from ground level or the top of the mound. The partial excavation alternative defines new values for the following base variables (in feet): z1, z2, and z3. They would be calculated as follows:

```
If z <= 15 then

    z1 is the same as full excavation
    z2 is the same as full excavation
    z3 is the same as full excavation.

If z > 15 and z1 + z3 < 15 then

    z1 is the same as full excavation
    z2 = 15 - (z1 + z3)
    z3 is the same as full excavation

If z > 15 and z1 + z3 = 15 then

    z1 is the same as full excavation
    z2 = 0
    z3 is the same as full excavation

If z > 15 and z1 + z3 > 15 and z3 < 15 then
    z1 = 15 - z3
    z2 = 0
    z3 is the same as full excavation
```

```
If z > 15 and z3 >= 15 then
    z1 = 0
    z2 = 0
    z3 = 0
(No Excavation for this WIDS site)
```

The rest of the volume equations are the same as the full excavation scenarios for Model 1 equations.

Model 2

Partial excavation for Model 2 differs from full excavation in that the partial excavation assumes excavation down to a maximum depth of 15 ft from ground level or the top of the mound. The partial excavation scenario defines new values for the following base variables (in feet): z1, z2, and z3. They are calculated as follows:

```
If z <= 15 then
    z1 is the same as full excavation
    z2 is the same as full excavation
    z3 is the same as full excavation.

If z > 15 and z1 + z3 < 15 then
    z1 is the same as full excavation
    z2 = 15 - (z1 + z3)
    z3 is the same as full excavation

If z > 15 and z1 + z3 = 15 then
    z1 is the same as full excavation
    z2 = 0
    z3 is the same as full excavation

If z > 15 and z1 + z3 > 15 and z3 < 15 then
    z1 = 15 - z3
    z2 = 0
    z3 is the same as full excavation

If z > 15 and z3 >= 15 then
    z1 = 0
    z2 = 0
    z3 = 0
(No Excavation for this WIDS site)
```

The rest of the volume equations are the same as the full excavation scenarios for Model 2 equations.

Model 3

Partial excavation for Model 3 differs from full excavation in that the partial excavation assumes excavation down to a maximum depth of 15 ft from ground level or the top of the mound. The partial excavation alternative defines new values for the following base variables (in feet): z1, z2, and z3. They are calculated as follows:

```
If z <= 15 then
    z1 is the same as full excavation
    z2 is the same as full excavation
    z3 is the same as full excavation.
```

```
If z > 15 and z1 + z3 < 15 then
    z1 is the same as full excavation
    z2 = 15 - (z1 + z3)
    z3 is the same as full excavation

If z > 15 and z1 + z3 = 15 then
    z1 is the same as full excavation
    z2 = 0
    z3 is the same as full excavation

If z > 15 and z1 + z3 > 15 and z3 < 15 then
    z1 = 15 - z3
    z2 = 0
    z3 is the same as full excavation

If z > 15 and z3 >= 15 then
    z1 = 0
    z2 = 0
    z3 = 0
(No Excavation for this WIDS site)
```

The rest of the volume equations are the same as the full excavation scenario for Model 3 equations.

*H.3.2.3 Results.* Volumes removed for full or partial excavation are shown in Tables H-11, H-12 and H-14. The volumes include ramp volumes, overburden volumes, contaminated soil volumes, and clean soil volumes. Total contaminated volume is the quantity that must be transported and buried at the Environmental Restoration Disposal Facility (ERDF) in the 200 Areas.

Partial excavation results in a substantial volume reduction. For Reactors on the River, the volume reduction would be approximately 40 percent while the areal reduction is less than 10%.

### *H.3.3 Capping of Waste Sites*

Capping is leaving waste in place. Capping involves constructing a Hanford Barrier over waste sites for the Restricted Future Land-Use Alternative for the Columbia River, and Restricted Future Land-Use Alternative (R2) for Reactors on the River and All Other Areas. For the Exclusive Future Land-Use Alternative for the Central Plateau, Bechtel Hanford Inc.'s baseline planning documents assume a modified RCRA C Barrier is used. The Hanford Barrier is described in more detail in Appendix E.

*H.3.3.1 Approach for Hanford Barrier.* The same sources of information are used as for full excavation. The volume of materials needed to construct a Hanford Barrier are derived from the WHC Baseline Cost Estimates (USACE 1994). The values differ from WHC estimates because this EIS uses the WIDS site areas.

Nine different material volumes are computed to arrive at a total capping volume. The volumes are drainage gravel, gravel, basalt, asphalt base, contour fill, lower silt, upper silt, sand, and asphalt. The volumes are calculated in cubic yards as shown in the following.

```
CAP AREA =      (SQRT(AREA/2) + 80) • (SQRT(AREA/2) • 2 + 80)
CAP VOL =       (CAP AREA/27) • 1.25
DRAIN GRAV =    CAP VOL
```

| | |
|---|---|
| GRAVEL = | CAP VOL |
| BASALT = | CAP VOL • 10 |
| ASPH BASE = | CAP VOL • 0.33 |
| COUNT FILL = | CAP VOL • 2 |
| LOWER SILT = | CAP VOL • 3.33 |
| UPPER SILT = | CAP VOL • 3.33 |
| SAND = CAP VOL/2 | |
| ASPHALT = (CAP AREA/9) • 0.33 | |
| TOTAL CAPPING VOLUME = | DRAIN GRAV + GRAVEL + BASALT + ASPH BASE + COUNT FILL + LOWER SILT + UPPER SILT + SAND + ASPHALT |

### *H.3.3.2 Approach for Modified RCRA C Barrier (Central Plateau)*

Eight different material volumes are included in the Modified RCRA C Barrier for capping the Central Plateau past-practice waste sites and TSD facilities. Volumes of material required for each layer were estimated on a Remedial Action Cost Summary spreadsheet for each individual site by Bechtel Hanford Inc. Total volumes for each layer were calculated by summing the volumes from all 31 spreadsheets.

*H.3.3.3 Results*. The results of capping calculations are shown in Tables H-11 to H-14.

### *H.3.4 Effluent Lines/Outfall Pipelines/Decommissioning Surplus Facilities*

This methodology involves calculating volumes for full and partial excavation and capping these structures. It includes calculating the materials to be excavated for removing pipelines (both effluent and outfall) for the nine reactors in the 100 Areas and for decommissioning of surplus facilities. Since these structures are not WIDS sites, the values from the WHC Baseline Cost Estimates (USACE 1994) are used. Excavation involves removal of pipelines, overburden, above- or below-grade structures, and associated contaminated material. The effluent lines are always within 1.5 m (5 ft) of the surface, and 1.8 m (6 ft) of soil is assumed to be excavated under the facilities so that they can be completely excavated in the Unrestricted Future Land-Use Alternative and the Restricted Future Land-Use Alternative (R1). For the Restricted Future Land-Use Alternative (R2), the pipelines would be capped. Capping volumes are calculated using previously described algorithms.

The total excavation volumes of the effluent lines and outfall structures are shown in Tables H-11 and H-12, and represent the largest single source of contaminated material. The costs for decommissioning are shown in Tables H-11 and H-12, and decommissioning structures represent the smallest element of costs.

### *H.3.5 Trample Zones for Full and Partial Excavation*

The trample zone calculation is the same for full and partial excavation. The key parameter is the volume of clean soil excavated. Excavated clean soil is assumed to swell by 18%. Equations for the trample zone calculation are as follows (in feet):

The radius of excavation is:

$$Rex = \{ \text{square root } [( X \bullet Y ) / 3.14] \}$$

where:

X = Site width
Y = Site length
Rex = Radius of excavation.

It is assumed that the trample zone would be a minimum of 50 ft. The maximum area (Amax) of soil that could be contained within the 50-ft trample zone if it were piled continuously around the perimeter of the excavation site is calculated. To apply this model to each WIDS site, the swell volume of clean soil is divided by the perimeter (varied by site) to give the area of a triangle (Sarea). If Sarea is greater than Amax, the trample zone would have to be larger than 50 ft.

Perimeter = ( X • 2 ) + ( Y • 2 )
Vclean = clean excavated soil volume
Vswell = Vclean • 1.18
Sarea = Vswell / perimeter
Amax = Maximum triangular area for 50-ft base and 34 degree angle of
repose = 843 sq ft.

If Sarea is smaller than Amax, the trample zone radius is 50 ft greater than the excavation radius:

Rtramp = Rex + 50 ft
Rbuff = 0
Rfinal = Rtramp + Rbuff.

If Sarea is greater than Amax, a new radius is calculated. The difference of the areas is used to calculate the new radius to add to Rtramp. The new radius is calculated through trigonometric substitution of the area of a triangle equation.

Rtramp = Rex + 50 ft
Darea = Sarea - 843
T = Tan 34 degrees = 0.6745085
Rbuff = { square root [ ( Darea • 2 ) / 0.6745085 ] }
Rfinal = Rtramp + Rbuff.

The final radius of the trample zone is Rfinal.

### *H.3.6 Piping Excavation Impact Zone*

For the piping remediation impact zone calculation, it is assumed that the excavation area is a triangle. The excavation volumes and lengths are taken from the WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994). The excavation width along the pipelines is calculated based on those values.

The volume is converted to loose cubic feet (LCF) by multiplying the Vtot by 27. To determine the excavation width, the Vtot in LCF is converted to bank cubic feet (BCF) by multiplying by the swell factor (Sfactor). The soil area (Sarea) is calculated by dividing the volume by the length. The depth of the triangle is calculated from the division of Sarea by the tan of 56 degrees and taking the square root of that value. The base is calculated from the multiplication of the depth by 1.5. The width is calculated by the multiplication of the base by 2. The calculated width represents the ground disturbance width of the excavations of the pipelines for the 100 Areas. The width is used to model pipeline excavation impact areas.

Equations:

| | | |
|---|---|---|
| Vtot | = | Total volume (LCY) |
| Length | = | Excavation Length (lf) |
| Sfactor | = | 0.82 |
| Sarea | = | (Vtot • 27 • 0.82 ) / Length (sq. ft.) |
| T | = | Tan 56 degrees = 1.482561 |
| Depth | = | [square root ( Sarea / 1.482561 ) ] |
| Base | = | Depth • 1.5 |
| Width | = | Base • 2. |

### *H.3.7 Groundwater Remediation*

The basis for groundwater volume calculations is described in Appendix D. Three treatment types were selected: ion exchange, reverse osmosis, and granular activated carbon (GAC).

### *H.3.8 Transportation*

The total volume of material transported to ERDF in LCM would be 1.18 times the bank cubic meters (BCM) reported in Tables H-11, H-12 and H-14 for contaminated soil. This is because the swell factor would be 18%. Backfill volumes are assumed to be equal to the contaminated soil volume. Backfill volumes are not included in the analysis because the transport distances and sources are not known.

### *H.3.9 Quarry Sites*

The volumes of materials that would be required from the borrow sites and quarries is given in Tables H-15 and H-16. These volumes are calculated using the capping models previously described.

## *H.4 Remediation Costs*

Costs for full excavation, capping, groundwater, and the Columbia River shoreline are calculated using the cost methodology described in this section. Partial excavation costs are generated in the same manner, but the volumes are modified using the decision rules described in Section H.3.2.1. Decommissioning and effluent outfall structures cost are taken directly from the WHC Baseline Cost Estimates (USACE 1994).

### *H.4.1 Approach*

The WHC Baseline Cost Estimates (USACE 1994) were used as a basis for developing a model to estimate excavation costs for the 100 and 300 Areas.

Key parameters include the volume to be excavated, the type and size of the waste site, the equipment to be used, and the labor hours.

#### *H.4.1.1 Excavation*

It was determined from plotting data and multiple regression analysis that the significant factors in developing the cost are the total volume to be excavated and the clean-to-dirty ratio of excavated materials. An unexpected result was that the type of site had no impact on the overall cost. This is most likely due to the fact that the geometry of the site type has already been accounted for in the volume calculations (i.e., different site types with the same surface area can have dramatically different volumes and therefore different costs).

The relationship of the volume to cost is slightly hyperbolic. At low volumes, costs per unit tend to be high. At high volumes, cost per unit tend to be lower. In most cases, the cost relationships are adequately approximated in three linear relations: a high volume, a moderate volume, and a low volume. The clean-to-dirty ratio is then used as a correction factor for the slope of the line. A high clean-to-dirty ratio tends to increase the slope, thus driving down costs per a given volume. A low clean-to-dirty ratio shifts the slope to the right and therefore increases the cost per unit volume.

The equations are expressed as follows:

$$\text{Cost} = \text{CF}\,(mV + b)$$

where:

| | | |
|---|---|---|
| Cost | = | the unburdened direct cost |
| CF | = | the correction factor based on the clean/dirty ratio |
| m | = | the slope of the line |
| V | = | the total volume of waste |
| b | = | the intercept of the line. |

Separate sets of equations are developed for each of four primary model types. These equations are described in the following sections.

*H.4.1.1.1 Full Excavation Models.* An Excel macro was written based on the total volume of a site in cubic feet. If the site has a total volume less than 120,000, the slope for the site is 2.19 and the intercept 105,000. If the total volume is 120,000 or greater, the slope is 3.36 and the intercept -111,000. The macro is labeled Initial.

```
INITIAL
IF VOL TOT < 120,000
    SLOPE = 2.19; INTERCEPT = 105,000
    ELSE
    SLOPE = 3.36; INTERCEPT = -111,000
```

Four Excel macros were written based on the ratio of contaminated soil to noncontaminated soil of a site. The slope changed depending on the ratio of contaminated soil to noncontaminated soil and the total volume. The macros are labeled: Very Clean, Clean, Dirty, and Very Dirty.

```
VERY CLEAN
IF RATIO < 0.1
IF VOL TOT < 200,000
MULTIPLY SLOPE BY 0.8
ELSE
MULTIPLY SLOPE BY 0.55

CLEAN
IF RATIO > = 0.2 AND < 0.6
IF VOL TOT > = 200,000 AND  < 300,000
MULTIPLY SLOPE BY 0.85
END IF
END IF
IF RATIO > = 0.1 AND < 0.2
IF VOL TOT > = 200,000 AND <300,000
MULTIPLY SLOPE BY 0.78
END IF
END IF
IF RATIO > = 0.1 AND < 0.6
IF VOL TOT > 300,000
MULTIPLY SLOPE BY 0.62

DIRTY
IF RATIO > 1.5 AND < = 50
IF VOL TOT < 120,000
MULTIPLY SLOPE BY 1.4
END IF
IF VOL TOT > = 120,000 AND < 500,000
MULTIPLY SLOPE BY 1.42
END IF
IF VOL TOT > = 500,000
MULTIPLY SLOPE BY 1.03

VERY DIRTY
IF RATIO > = 50 AND < = 200
IF VOL TOT > 120,000
MULTIPLY SLOPE BY 1.42
END IF
END IF
IF RATIO > 200
SLOPE  = 0.12
```

Cost is calculated by multiplying volume total and slope and adding the intercept as follows:

[(Vol Tot • Slope) + Intercept].

Six components are part of cost (mobilization, monitoring, water, solids, site restoration, and demobilization). These components are fully named and described in detail in Section H.2.

```
MOBILIZATION
IF COST >= 15,000,000
MOBILIZATION = 70,000
ELSE
MOBILIZATION = (COST • 0.003) + 25,000

MONITORING
MONITORING = (COST • 0.7) - 30,000

WATER
IF COST >= 3,500,000
    WATER = 4,000
    ELSE
    WATER = (COST • 0.001) + 500

SOLIDS
SOLIDS = (COST • 0.16) - 3,000

RESTORATION
IF SITE TYPE = RETENTION BASIN OR BURNING PIT
    RESTORATION = (COST • 0.0878) - 2,500
    ELSE
    RESTORATION = (COST • 0.135) - 2,500

DEMOBILIZATION
IF COST >= 50,000,000
    DEMOB = 15,000
    ELSE
    DEMOB = (COST • 0.0001) + 10,000
```

Total cost is calculated by multiplying cost by 1.96 and adding 20,000 [(Cost • 1.96) + 20,000]. These additional costs account for indirect costs.

To normalize the six components that went into cost to the total cost, the percentage of the component is multiplied by total cost.

Example: [Mobilization/(Mob + Mon + Water + Solids + Rest + Demob)] • Total Cost = Mobilization

(After Normalization) Total Cost = Mobilization + Monitoring + Water + Solids + Restoration + Demobilization.

Fuel requirements, in gallons, are linked with volume total.

```
FUEL
IF VOL TOT < 5,000,000
    FUEL = (VOL TOT • 0.0556) + 1337
    ELSE
    FUEL = (VOL TOT • 0.073) - 130452
```

Labor, in hours, is broken into three components: Field, Administration, and Professional.

```
FIELD
IF (MOBILIZATION + SOLIDS + RESTORATION) < 150,000
    FIELD = ((MOBILIZATION + SOLIDS + RESTORATION) • 0.017) - 320
    ELSE
    FIELD = ((MOBILIZATION + SOLIDS + RESTORATION) • 0.0172) - 952

ADMINISTRATION
IF VOL TOT < 5,000,000
    ADMINISTRATION = (VOL TOT • 0.00026) + 26
    ELSE
    ADMINISTRATION = (VOL TOT • 0.00032) - 313

PROFESSIONAL
IF COST < 200,000
    PROFESSIONAL = (COST • 0.0036)
    ELSE
    PROFESSIONAL = (COST • 0.0026)

TOTAL LABOR
    IF COST < 300,000
    TOTAL LABOR = (COST • 0.008) + 190
    ELSE
    TOTAL LABOR = (COST • 0.0073) + 1674
```

Since different components are used to derive field labor, administrative labor, and professional labor, they do not equal total labor when summed. This is remedied by normalizing the three components to total labor.

Example: [Field/(Field + Administration + Professional)] • Total Labor = Field Labor

(After normalization) Total Labor = Field Labor + Administration Labor + Professional Labor.

Eight separate calculations are necessary to derive duration, in days. The calculations are labeled: Soilllo, Qtyllwo, Soilnro, Totalvol, Days, Spreado, Areasto, and Duration.

```
SOILLLO   = ((NON-CONT SOIL/27) • 0.15) + (CONT SOIL/27)
QTYLLWO   = SOILLLO • 1.25) + ((DEMO WASTE/27) • 1.6)
SOILNRO   = (NON-CONT SOIL/27) • 0.85
TOTALVOL  = (SOILNRO • 1.25) + QTYLLWO
DAYS      = TOTALVOL/600
SPREADO   = ((NON-CONT SOIL/27) + (CONT SOIL/27)) • 1.25
AREASTO   = (Y + 60) • (X + 60)
DURATION  = ((SPREADO/960) + (AREASTO/14,400) + (DAYS +10))
```

*H.4.1.1.2 Models Validation*. To confirm that the algorithms were correct, approximately 110 waste sites were selected as reflecting all site types. This test data set used the WHC (1994a) modified waste site values of area and depth. Upon completion of the algorithms, the remaining sites in the WHC study were run through the model. The results were within +/- 20% of the WHC Baseline Cost Estimates (USACE 1994).

When the cost for all 266 waste sites in the WHC Baseline Cost Estimates (USACE 1994) were compared to the cost summaries derived from the models using EIS waste site values, the total costs were within 0.1% of each other. Once this confirmation process was completed, the raw WIDS values were run through the models resulting in new cost values for each site. These costs were summarized and compared with the sum of the original WHC Baseline Cost Estimates (USACE 1994) and were within 1.4% of each other.

On a site-by-site basis, however, there are significant differences because the site dimensions in WIDS differ considerably from the site dimensions used in the WHC Baseline Cost Estimates (USACE 1994). The differences in these dimensions tend to cancel each other, so that similar totals are derived with either data set. For the purposes of consistency and reproducibility, the WIDS values are used to estimate costs for this EIS (with the exception of the retention basins).

The reactor retention basins are the only sites where the modified WIDS values are used. The contaminated area for the retention basin areas is increased by 60% to account for basin flooding (WHC 1993).

*H.4.1.1.3 Partial Excavation Models*. To arrive at the costs for partial excavation, an Excel macro was written based on the total volume of a site. If the site has a total volume less than 120,000, the slope for the site is 2.19 and the intercept 105,000. If the total volume is 120,000 or greater, the slope is 3.36 and the intercept -111,000. The macro is labeled Initial.

```
INITIAL
IF VOL TOT < 120,000
    SLOPE = 2.19; INTERCEPT = 105,000
    ELSE
    SLOPE = 3.36; INTERCEPT = -111,000
```

Four Excel macros were written based on the ratio of contaminated soil to noncontaminated soil of a site. The slope changes depending upon the ratio of contaminated soil to noncontaminated soil and the total volume. The macros were labeled; Very Clean, Clean, Dirty, and Very Dirty.

```
VERY CLEAN
IF RATIO < 0.1
    IF VOL TOT < 200,000
        MULTIPLY SLOPE BY 0.8
        ELSE
        MULTIPLY SLOPE BY 0.55

CLEAN
    IF RATIO > = 0.2 AND < 0.6
    IF VOL TOT > = 200,000 AND  < 300,000
        MULTIPLY SLOPE BY 0.85
    END IF
END IF
IF RATIO > = 0.1 AND < 0.2
    IF VOL TOT > = 200,000 AND <300,000
        MULTIPLY SLOPE BY 0.78
```

```
        END IF
    END IF
    IF RATIO >= 0.1 AND < 0.6
        IF VOL TOT > 300,000
            MULTIPLY SLOPE BY 0.62

    DIRTY
    IF RATIO > 1.5 AND <= 50
        IF VOL TOT < 120,000
            MULTIPLY SLOPE BY 1.4
        END IF
        IF VOL TOT >= 120,000 AND < 500,000
            MULTIPLY SLOPE BY 1.42
        END IF
        IF VOL TOT >= 500,000
        MULTIPLY SLOPE BY 1.03

    VERY DIRTY
        IF RATIO >= 50 AND <= 200
        IF VOL TOT > 120,000
            MULTIPLY SLOPE BY 1.42
        END IF
    END IF
    IF RATIO > 200
        SLOPE  = 0.12
```

Cost is calculated by multiplying volume total and slope and adding the intercept as follows:

$$[(\text{Vol Tot} \bullet \text{Slope}) + \text{Intercept}].$$

Six components are part of cost (mobilization, monitoring, water, solids, restoration, and demobilization). These components are fully named and described in detail in Section H.2.

```
    MOBILIZATION
    IF COST >= 15,000,000
        MOBILIZATION = 70,000
        ELSE
        MOBILIZATION = (COST • 0.003) + 25,000

    MONITORING
    MONITORING = (COST • 0.7) - 30,000

    WATER
    IF COST >= 3,500,000
        WATER = 4,000
        ELSE
        WATER = (COST • 0.001) + 500

    SOLIDS
    SOLIDS = (COST • 0.16) - 3,000
```

```
RESTORATION
IF SITE TYPE = RETENTION BASIN OR BURNING PIT
    RESTORATION = (COST • 0.0878) - 2,500
    ELSE
    RESTORATION = (COST • 0.135) - 2,500

DEMOBILIZATION
IF COST > = 50,000,000
        DEMOB = 15,000
    ELSE
        DEMOB = (COST • 0.0001) + 10,000
```

Total cost was calculated by multiplying cost by 1.96 and adding 20,000 as follows:

$$[(\text{Cost} \bullet 1.96) + 20{,}000].$$

To normalize the six components that went into cost to the total cost, the percentage of the component is multiplied by total cost.

Example: (Mobilization/(Mob + Mon + Water + Solids + Rest + Demob)) • Total Cost = Mobilization

(After Normalization) Total Cost = Mobilization + Monitoring + Water + Solids + Restoration + Demobilization.

Fuel requirements, in gallons, is linked with volume total.

```
FUEL
IF VOL TOT < 5,000,000
    FUEL = (VOL TOT • 0.0556) + 1337
    ELSE
    FUEL = (VOL TOT • 0.073) - 130452
```

Labor, in hours, is broken into three components: Field, Administration, and Professional.

```
FIELD
IF (MOBILIZATION + SOLIDS + RESTORATION) < 150,000
    FIELD = ((MOBILIZATION + SOLIDS + RESTORATION) • 0.017) - 320
    ELSE
    FIELD = ((MOBILIZATION + SOLIDS + RESTORATION) • 0.0172) - 952

ADMINISTRATION
IF VOL TOT < 5,000,000
    ADMINISTRATION = (VOL TOT • 0.00026) + 26
    ELSE
    ADMINISTRATION = (VOL TOT • 0.00032) - 313

PROFESSIONAL
IF COST < 200,000
    PROFESSIONAL = (COST • 0.0036)
    ELSE
    PROFESSIONAL = (COST • 0.0026)
```

```
TOTAL LABOR
IF COST < 300,000
    TOTAL LABOR = (COST • 0.008) + 190
    ELSE
    TOTAL LABOR = (COST • 0.0073) + 1674
```

Since different components are used to derive field labor, administration labor, and professional labor, they do not equal total labor when added together. This is remedied by normalizing the three components to total labor.

Example: (Field/(Field + Administration + Professional)) • Total Labor = Field Labor

(After normalization) Total Labor = Field Labor + Administration Labor + Professional Labor.

Eight separate calculations are necessary to derive duration, in days. The calculations are labeled: Soilllo, Qtyllwo, Soilnro, Totalvol, Days, Spreado, Areasto, and Duration.

```
SOILLLO   = ((NON-CONT SOIL/27) • 0.15) + (CONT SOIL/27)
QTYLLWO   = (SOILLLO • 1.25) + ((DEMO WASTE/27) • 1.6)
SOILNRO   = (NON-CONT SOIL/27) • 0.85
TOTALVOL  = (SOILNRO • 1.25) + QTYLLWO
DAYS      = TOTALVOL/600
SPREADO   = ((NON-CONT SOIL/27) + (CONT SOIL/27)) • 1.25
AREASTO   = (Y + 60) • (X + 60)
DURATION  = ((SPREADO/960) + (AREASTO/14,400) + (DAYS +10))
```

*H.4.1.2 Models for Excavation of the Columbia River Shoreline.* Excavation costs for the Columbia River shoreline are calculated using the models developed for estimating the waste sites excavation costs. The dimensions required for excavation are obtained from the *100 Area Feasibility Study, Phases 1 and 2* (DOE 1994). The costs do not include transportation of soils to backfill the shoreline trench.

*H.4.1.3 Capping Models: Hanford Barrier.* Capping costs for the Restricted Future Land-Use Alternative (R2) in the Reactors on the River and All Other Areas geographic areas are based on emulation of the WHC Baseline Cost Estimates (USACE 1994). To arrive at the costs for capping, an Excel macro was written based on the area of a site. The macro was labeled Cost.

```
COST
IF AREA < 50,000
    COST = (AREA • 45.13) + 1,425,309
    ELSE
    COST = (AREA • 29.45) + 2,394,567
```

Six components are part of cost. The components are mobilization, monitoring, water, solids, restoration, and demobilization. These components are fully named and described in detail in Section H.2.3.

```
MOBILIZATION
IF AREA < 1,000
    MOBILIZATION = COST • 0.03
END IF
```

```
IF AREA > 50,000
    MOBILIZATION = (AREA • 0.0332) + 54,600
    ELSE
    MOBILIZATION = (AREA • 0.1655) + 44,421

MONITORING
IF AREA < 1000
    MONITORING = COST • 0.04
END IF
IF AREA > 50,000
    MONITORING = (AREA • 4.59) + 139,577
    ELSE
    MONITORING = (AREA • 6.41) + 54,621

WATER
IF AREA < 1,000
    WATER = COST • 0.005
    ELSE
    WATER = COST • 0.0007

SOLIDS
IF AREA < 1,000
    SOLIDS = COST • 0.18
END IF
    IF AREA > 50,000
    SOLIDS = (AREA • 24.06) + 1,108,201
    ELSE
    SOLIDS = (AREA • 37.18) + 297,241

RESTORATION
IF AREA < 1,000
    RESTORATION = COST • 0.74
    ELSE
    RESTORATION = (AREA • 0.795) + 1,022,156

DEMOBILIZATION
IF AREA < 1,000
        DEMOB = COST • 0.005
    ELSE
        DEMOB = (AREA • 0.006) + 10,000
```

Total Cost is calculated by multiplying Cost by 1.96 and adding 20,000

$$[(\text{Cost} \bullet 1.96) + 20{,}000].$$

In order to normalize the six components of cost to the total cost, the percentage of the component is multiplied by total cost.

Example: [Mobilization/(Mob + Mon + Water + Solids + Rest + Demob)] • Total Cost = Mobilization

(After Normalization) Total Cost = Mobilization + Monitoring + Water + Solids + Restoration + Demobilization.

Fuel requirements, in gallons, are linked with area.

```
FUEL
IF AREA < 1,000
    FUEL = COST • 0.006
END IF
IF AREA > 50,000
    FUEL = (AREA • 1.148) + 18,523
    ELSE
    FUEL = (AREA • 1.825) + 11,238
```

Labor, in hours, is broken into three components Field, Administration, and Professional.

```
FIELD
IF AREA < 1,000
    FIELD = AREA • 4.74
END IF
IF AREA > 50,000
    FIELD = (AREA • 0.277) + 13,122
    ELSE
    FIELD = (AREA • 0.402) + 4,277

ADMINISTRATION
IF AREA < 1,000
    ADMINISTRATION = AREA • 0.0896
END IF
IF AREA > 50,000
    ADMINISTRATION = (AREA • 0.0047) + 187
    ELSE
    ADMINISTRATION = (AREA • 0.006) + 73

PROFESSIONAL
IF AREA < 1,000
    PROFESSIONAL = AREA • 1.438
END IF
IF AREA > 50,000
    PROFESSIONAL = (AREA • 0.78) + 2,991
    ELSE
    PROFESSIONAL = (AREA • 0.104) + 1,175

TOTAL LABOR
IF AREA < 1,000
    TOTAL LABOR = AREA • 6.26
END IF
IF AREA > 50,000
    TOTAL LABOR = (AREA • 0.3606) + 16,300
    ELSE
    TOTAL LABOR = (AREA • 0.5126) + 5,526
```

Field labor, administration labor, and professional labor when added together do not equal Total Labor to the exact hour. This is due to the slight differences in the equations, and is remedied by normalizing the three components to total labor.

Example: (Field/(Field + Administration + Professional)) • Total Labor = Field Labor

(After normalization) Total Labor = Field Labor + Administration Labor + Professional Labor.

Five separate calculations are necessary to derive duration, in days. The calculations are labeled: Cap Area, Cap Vol, Inject Well, Area Sto, and Duration.

```
CAP AREA    = (SQRT(AREA/2) + 80) • (SQRT(AREA/2) • 2 + 80)
CAP VOL     = (CAP AREA/27) • 1.25
INJECT WELL = AREA/625
AREA STO    = (SQRT (AREA) + 60) • (SQRT (AREA) + 60)
DURATION    = ((AREA/400) + (CAP AREA/400) + (INJECT WELL/4) + ((CAP VOL •
              22)/800) + (AREA STO/14,400) + 10)
```

*H.4.1.4 Capping Costs: Modified RCRA C Barrier.* Capping costs for the Central Plateau were estimated for each waste site by Bechtel Hanford Inc assuming use of the Modified RCRA C Barrier. Total costs for each cap include direct and indirect costs. Direct costs include equipment, material, labor and contingency costs. Equipment rates were based on the U.S. Army Corps of Engineers 1993 pricing database. Material costs were associated with asphalt, grass seed, and permanent markers. Labor costs used wage rates based on January 1995 Building Trade Unit Rates. Mobilization and demobilization costs were estimated as a percentage of direct costs. Transportation costs for the capping materials were included in the direct costs, assuming a 24-km (15-mi) one-way haul. Indirect costs include remedial design (assumed to be 5% of construction costs) and construction management support costs.

*H.4.1.5 Decommissioning of Surplus Facilities/TSDs.* The costs for Decommissioning of structures are obtained directly from WHC Baseline Cost Estimates (USACE 1994). Capping of facility sites is assumed to be roughly equivalent to the costs for excavating the below-grade structures. Cost for TSDs are calculated from data in WIDS. The only TSD site that is not in WIDS is the hexone treatment and storage facility, so the costs for its remediation are not calculated (likely to be minimal). Costs for concrete stacks are also calculated from data in WIDS.

*H.4.1.6 Groundwater Remediation.* The cost models for groundwater are based on unit costs derived from WHC Baseline Cost Estimates (USACE 1994). The costs are supplemented with estimates for reverse osmosis treatment units.

The assumptions used to estimate the cost for groundwater remediation came from Appendix D and WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994). The primary input parameters for estimating costs are the number of wells, pumping rate, well depth, length of interwell pipe, duration, and treatment method for the preliminary pump-and-treat conceptual design as described in Appendix D.

Appendix D provides estimates of these input parameters for each of the reactor areas in the 100 Areas and subtotals for the 200, 300, and 600 Areas. Groundwater costs are allocated to geographic areas with the six groundwater operable units comprising the Reactors on the River, the 200 and 600 Areas comprising the Central Plateau, and the 300 Area comprising All Other Areas. The combination of treatment methods proposed for each of the geographic areas is listed in Table H-17.

Four major cost categories are estimated for the treatment methods:

- well costs
- treatment costs
- capital costs
- pumping operations & maintenance costs.

These costs were estimated using input parameters from the following representative models presented in WHC Baseline Cost Estimate, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994): for ion exchange - the 100 NR-2 (N Springs) model, and for GAC - the 200-ZP-1 groundwater operable unit model. The costs for reverse osmosis are derived using escalation factors applied to ion exchange costs (2.1 • capital costs and 0.67 • operations and maintenance [O&M] costs). Total costs by geographic area are calculated by adding up each of the major cost categories for each of the individual treatment methods, with the exception that well costs and treatment costs are only calculated once.

The well cost equation is as follows:

Well Costs = (total well depth in feet • $800/foot) + (total length of interwell pipe in feet • $50/foot).

The treatment cost equation is as follows:

Treatment Costs = ([1 off-site sample per week at the effluent + 1 sample per month at the influent] • number of years • per unit sample cost) + ([1 HACH kit sample per day at effluent and 1 sample per week at influent] • number of years • per unit sample cost)

which was = (64 • 135 • 4210)+(417 • 135 • 50).

The capital cost equation for ion exchange is based on the total cost presented for a 300 gpm unit in WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994). The capital costs for this unit are estimated at $1,693,640. The capital costs for ion exchange by geographic area are based on the cumulative pumping rates estimated from the preliminary conceptual design (Appendix D). The capital costs are based on the number of 300 gpm units required to cover the cumulative pumping rate (Table H-18).

The O&M costs for ion exchange are based on costs presented in WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994) for a similar type treatment unit. There were three main types of O&M costs associated with the ion exchange treatment method. These three cost breakouts are for: resin regeneration; electric, gas, and water; and labor. Like the U.S. Army Corps of Engineers study, the system is assumed to be operational around the clock and fully automated. Labor requirements are based on a day shift crew only. Similar to the capital costs, O&M costs are based on the number of 300 gpm units (which was the WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" [USACE 1994] model example) required to cover the cumulative pumping rate for each area.

For Reactors on the River four units are needed, while nine are needed for the Central Plateau. The O&M costs are therefore multiplied for each category except labor, where it is assumed that the only staffing change would be an additional operator for each unit. The cost equations are used to derive annual O&M costs as follows:

| | |
|---|---|
| Resin regeneration | 8,000 cf/yr • $210.52/cf |
| Electric, gas, water | $2,000/month • 12 months |
| Labor | Health physics tech for 2076 hrs/yr • $39.72/hr |
| | Supervisor tech for 2076 hrs/yr • $28.62/hr |
| | Skilled maintenance for 1038 hrs/yr • $27.62/hr |
| | Operator for 2076 hrs/yr • $27.62/hr |
| | Ops tech for 2076 hrs/yr • $27.62/hr. |

These annual O&M costs by geographic area are presented in Table H-19.

As mentioned previously, to derive reverse osmosis costs, the following escalation factors are applied to the ion exchange costs:

Capital Costs = 2.1 • Ion Exchange Capital Costs
Operations and Maintenance = 0.67 • Ion Exchange O & M.

Granular activated carbon capital costs are derived from the WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994) example model for 200-ZP-1. The example model is based on nine 150-gpm units, with each plant having three units (two in operation and one on standby). The total gpm, therefore, of this system is 900 gpm, or 300 gpm per plant. The capital cost for this system is $561,805. To achieve the cumulative pumping rates requires several GAC units (see Table H-20) for each geographic area. The capital costs were derived using the example model cost and a ratio based on the number of three-unit plants required to cover the cumulative pumping rate (see Table H-21).

Granular activated carbon O&M costs are also derived from the same example model from WHC Baseline Cost Estimates, "Piping Remediation, Groundwater Remediation, and Remedial Design" (USACE 1994). The three major cost components and their equations are as follows:

| | |
|---|---|
| Replace GAC | 2,000 lbs/yr • $1.74/lb |
| Electric, gas, water | $5,000/month • 12 months |
| Labor | Health physics tech for 2076 hrs/yr • $39.72/hr |
| | Supervisor tech for 2076 hrs/yr • $28.62/hr |
| | Skilled maintenance for 685 hrs/yr • $27.62/hr |
| | Operators (6) for 2076 hrs/yr • $27.62/hr |
| | Ops tech (2) for 2076 hrs/yr • $27.62/hr. |

Using similar factors as for capital costs to adjust for the cumulative pumping rates required for each area, these costs are then multiplied by 4/3 for the Reactors on the River and 9/3 for the Central Plateau and 1/3 for All Other Areas. These annual GAC O&M costs by geographic area are presented in Table H-22.

Depending on the combination of treatment methods by geographic area, these individual cost components are then summed up to arrive at total treatment costs. These costs are then multiplied by 1.96 to arrive at fully loaded treatment costs.

*H.4.1.7 Road/Rail/Transport.* The costs of the road, rail, and transport for the Columbia River, Reactors on the River, and All Other Areas geographic areas are derived from the *100 B/C Remedial Activities Pre-Design Report* (WHC 1993) study. As previously discussed, transportation costs for the Central Plateau were included in capping costs and are not discussed here. The transportation costs calculated here included road construction (adjacent to existing roads). The road network is derived from the haul roads defined in the *Task 6 Preconceptual Engineering Study for the Selection and Design of the Transporter Haul Route* report (WHC 1994b) as the preferred alternative.

The assumptions used to estimate transportation costs come primarily from the *100 B/C Area Remedial Activities Pre-Design Report* (WHC 1993). Transportation costs are developed for two separate transportation alternatives (road and rail) for each of the geographic areas. Under each alternative, these costs are further broken down into nonrecurring and recurring costs. Nonrecurring costs are made up of construction costs for labor, equipment, and material. Recurring costs are comprised of O&M costs.

For the Reactors on the River Area, costs are broken down to the operable unit level. Costs are not broken down into smaller components for either the Columbia River or All Other Areas.

Major input parameters for the cost model are road and rail distances reported in meters and contaminated volume and material volume reported in LCM. The road and rail distances are calculated from GIS coverage maps. The contaminated and material volume numbers are taken from the volumetric model calculations and converted from LCY.

Full excavation and partial excavation uses road and rail distances from the operable unit/area to ERDF and the amount of contaminated volume to be excavated. The capping scenario uses road and rail distances from the McGee Ranch quarry to the operable unit/area and the amount of material capping volume used in the barriers. The material capping volume is comprised of the individual volumes calculated for drainage gravel, gravel, crushed basalt, asphalt base, lower silt, upper silt, sand, and asphalt. Listed in Table H-23 are the starting/ending points used for the road/rail distances by geographic area.

Using the *100 B/C Area Remedial Activities Pre-Design Report* (WHC 1993), nonrecurring and recurring cost relationships for road and rail transportation are calculated from the more detailed cost breakdowns provided in the report. Each of these transportation cost categories is derived from labor, material, and equipment subcosts as identified in Table H-24.

Based on these 100 B/C cost breakdowns and the road and rail distances supplied in the report, the following cost per units are derived as shown in Table H-25.

Relational equations are then used along with area-specific data on contaminated and material volumes and road and rail distances to derive subcosts (identified in Table H-26).

It should be noted that the road transportation/fuel costs are based on the haul distance and the road construction/fuel costs are based on the new road distances. In the Reactors on the River Area, for example, the haul distances are measured individually from each operable unit to ERDF or McGee Ranch quarry, while the new road distance would not double count shared haul route segments.

Input parameters for calculating costs for transportation of excavated wastes or capping materials is provided in Table H-27. Both road and rail distances are shown. Costs for transporting wastes are shown in Tables H-11, H-12 and H-14.

*H.4.1.8 Quarry Sites*. The costs for maintenance and operation of the quarry sites are not included in the scope of this document.

*H.4.1.9 Indirect Costs*. The indirect costs for the Columbia River, Reactors on the River, and All Other Areas geographic areas are included in cost estimates by the following relationship:

$$\text{Total Cost} = (\text{Cost} \bullet 1.96) + \$20{,}000.$$

The costs covered in the indirects are as follows.

Fixed Price Contracts:

- overhead
- profit
- bond - Class B
- B&O Tax.

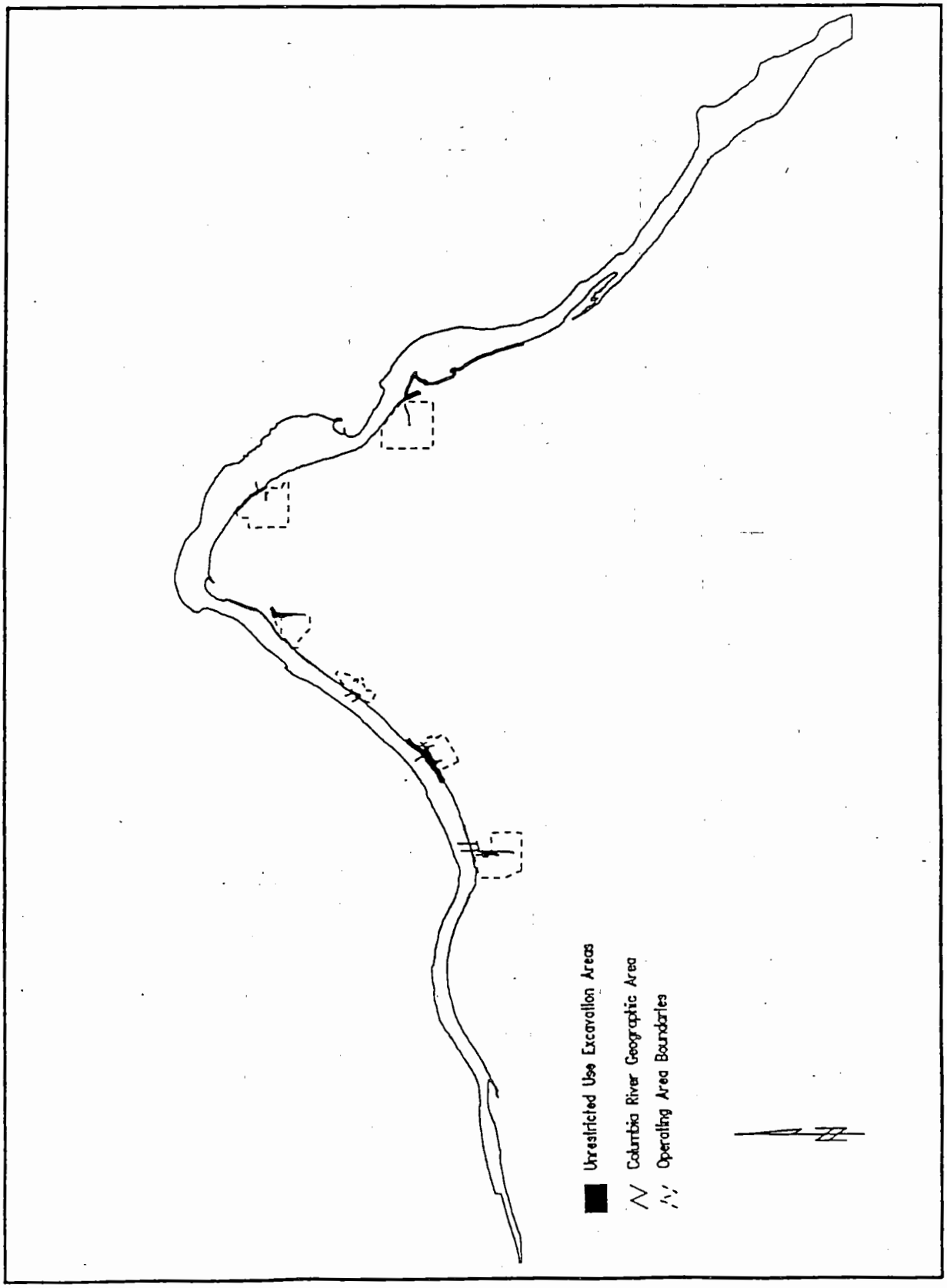
WHC, Hanford Environmental Health Foundation, Kaiser Engineers Hanford, Pacific Northwest Laboratory:

- material procurement rate
- project management/construction management
- general and administrative/common support pool
- contingency.

Escalation: No escalation are included in the cost estimates.

Labor and Equipment Rates: Hanford specific labor and equipment rates are assumed.

*Figure H-1. Excavation Area for Unrestricted Use of the Columbia River Geographic Area.*



9613470.0887

*Figure H-2. Capping Areas for Restricted Use of the Columbia River Geographic Area.*

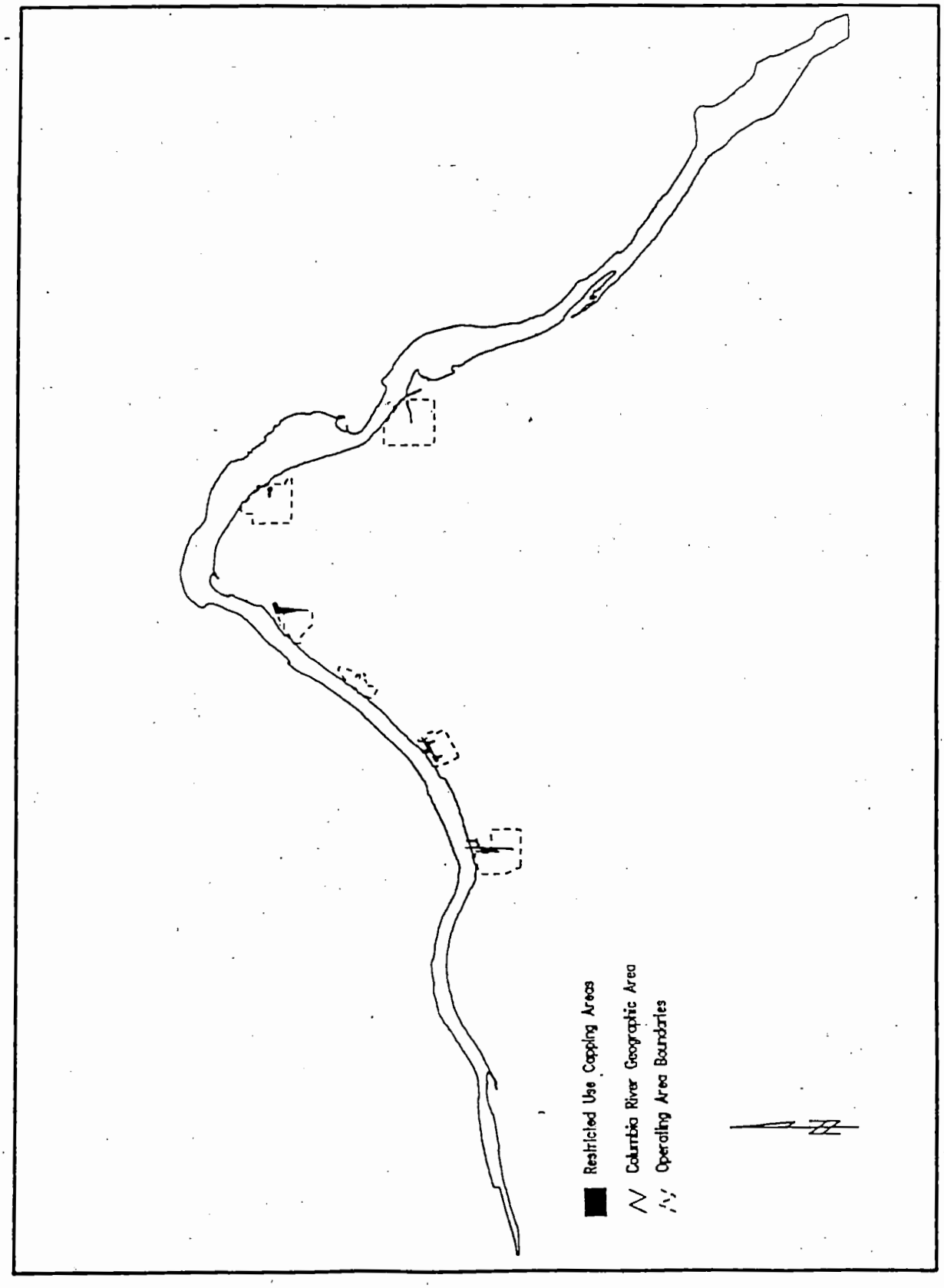


*Figure H-3. Excavated Area for Unrestricted Use of the Reactors on the River Geographic Area.*

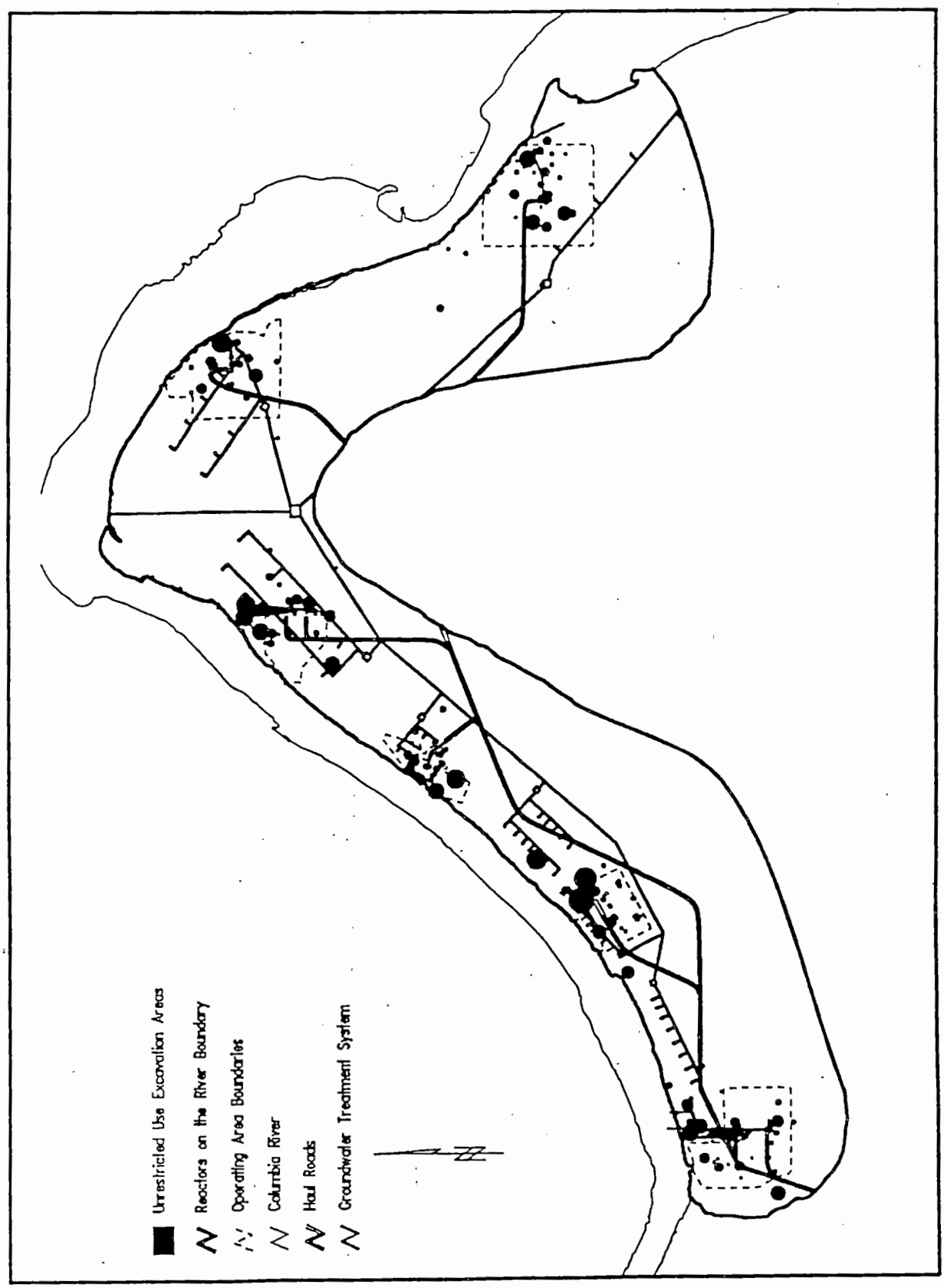


*Figure H-4. Excavated Area for Restricted Use (R1) of the Reactors on the River Geographic Area.*

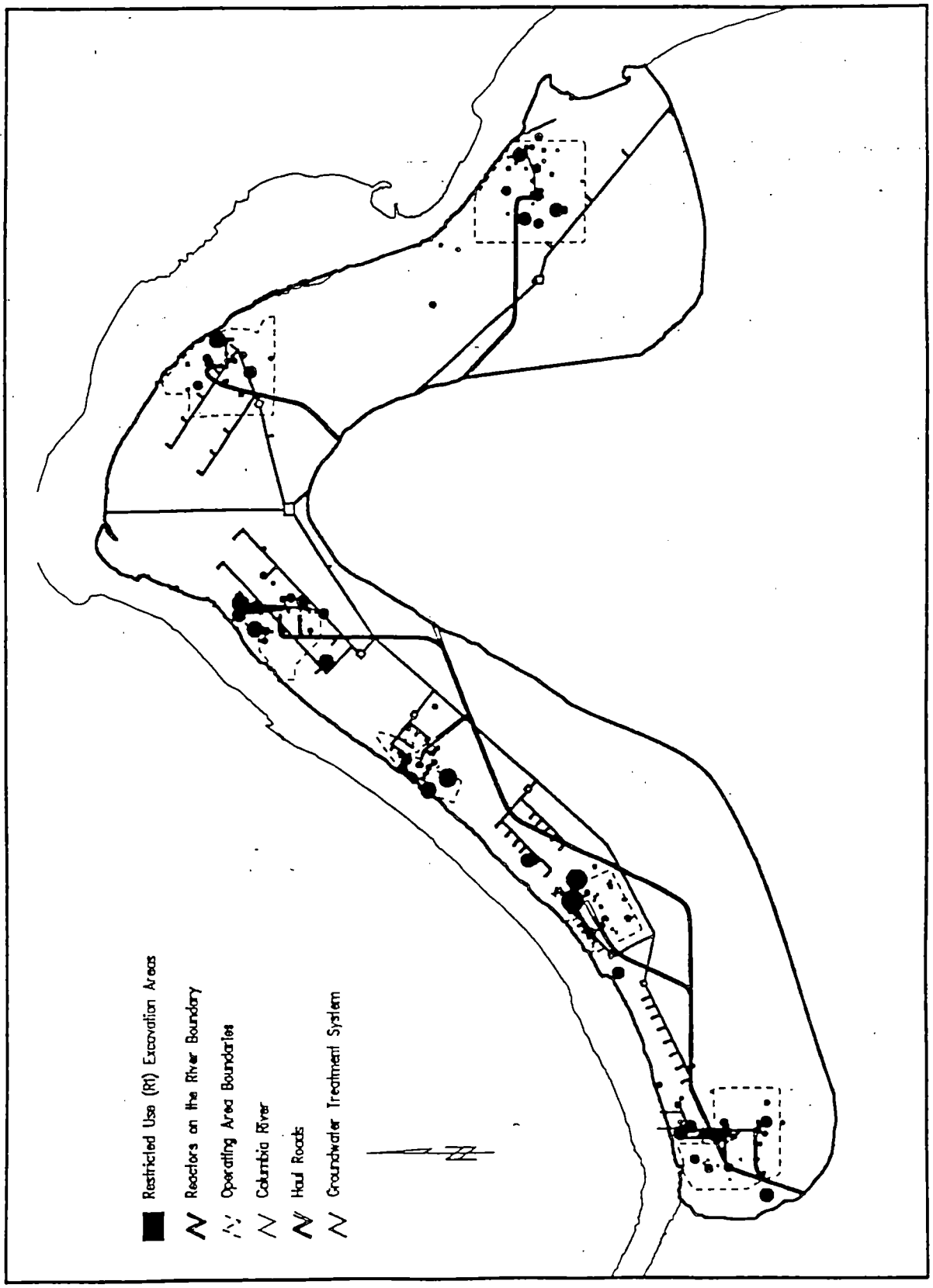


*Figure H-5. Capped Area for Restricted Use (R2) of the Reactors on the River Geographic Area.*

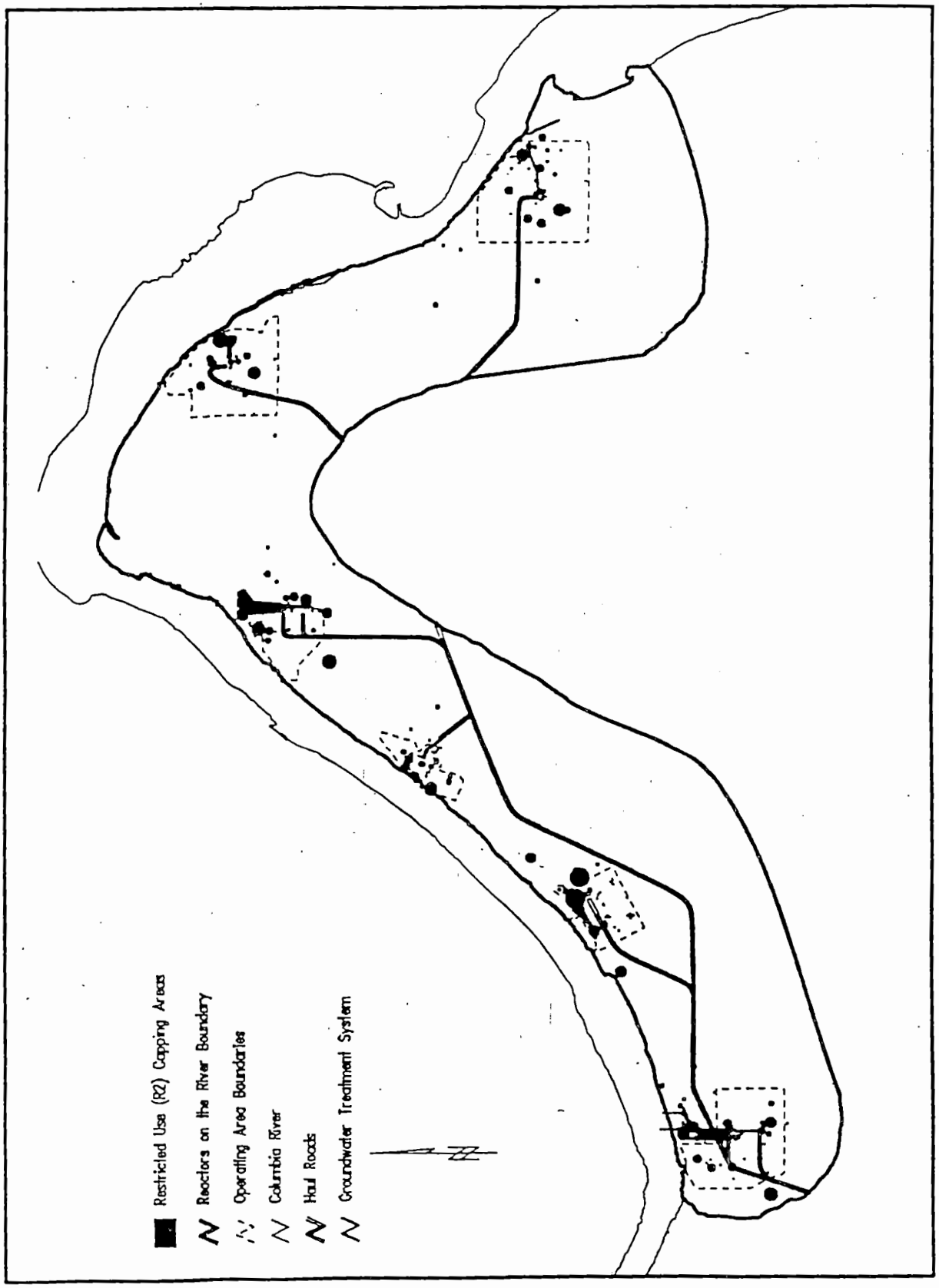


*Figure H-6. Capped Area for Exclusive Use of the Central Plateau Geographic Area.*

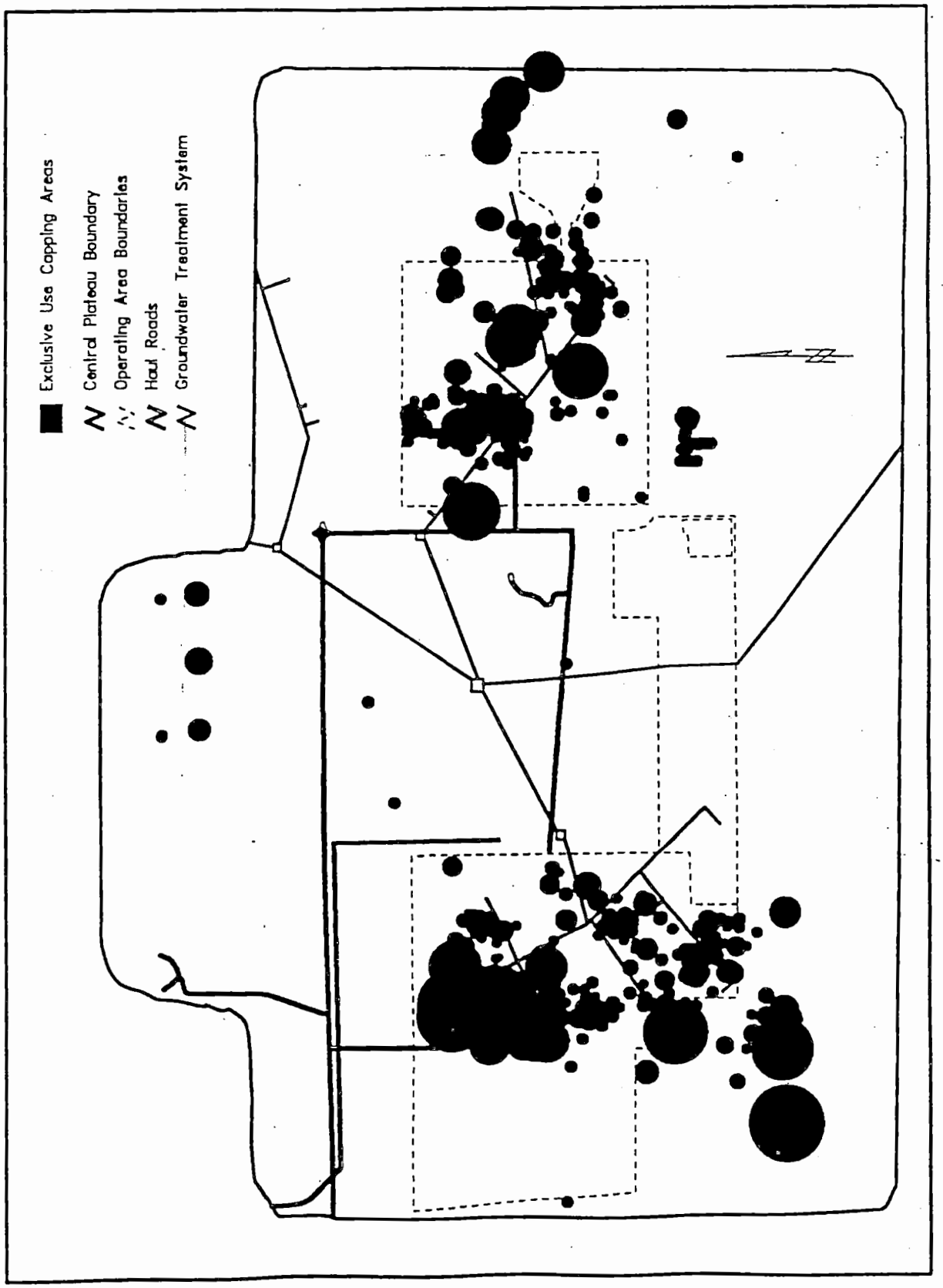


*Figure H-7. Excavated Area for Restricted Use (R1) of All Other Areas Geographic Area.*

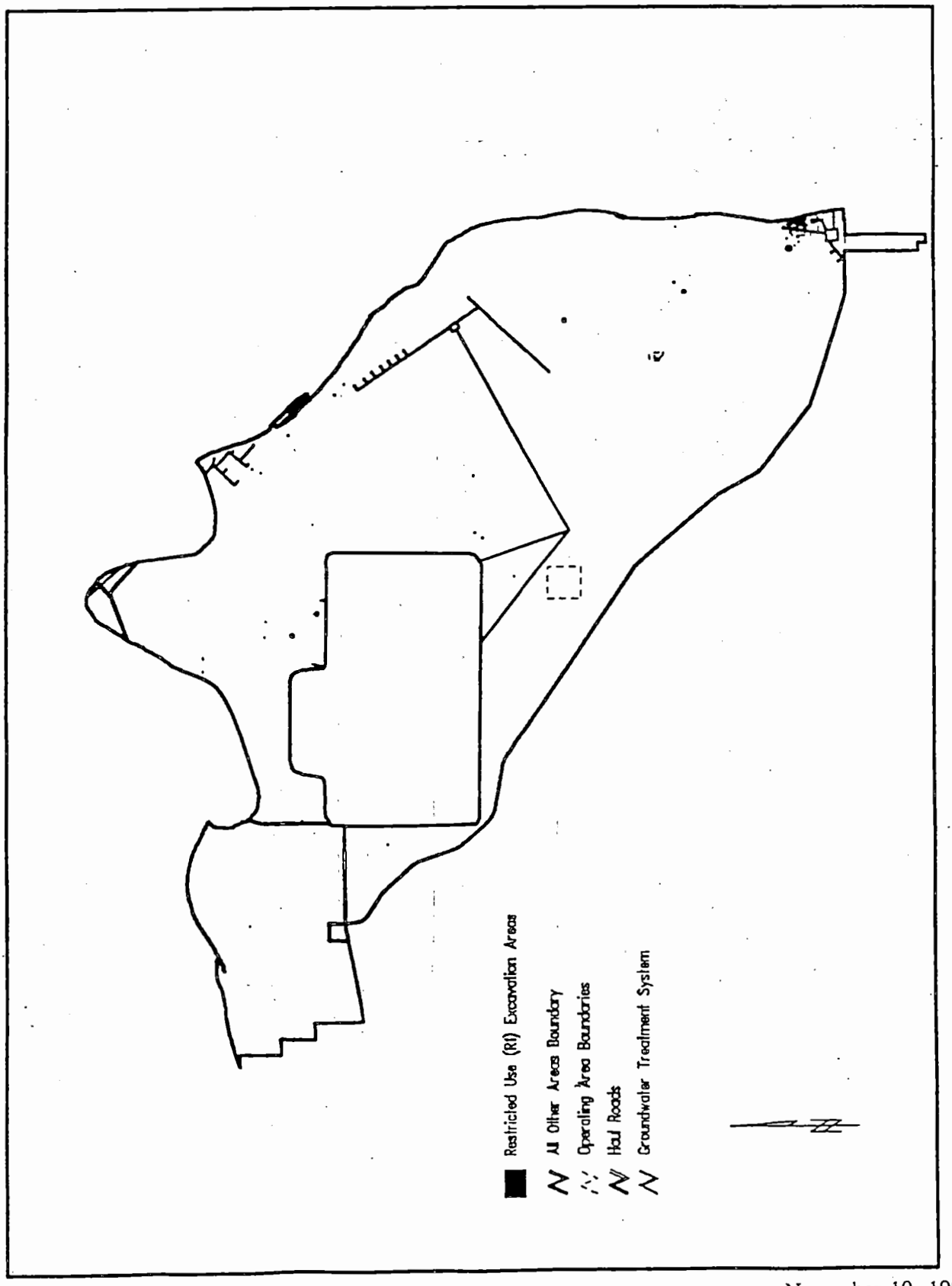
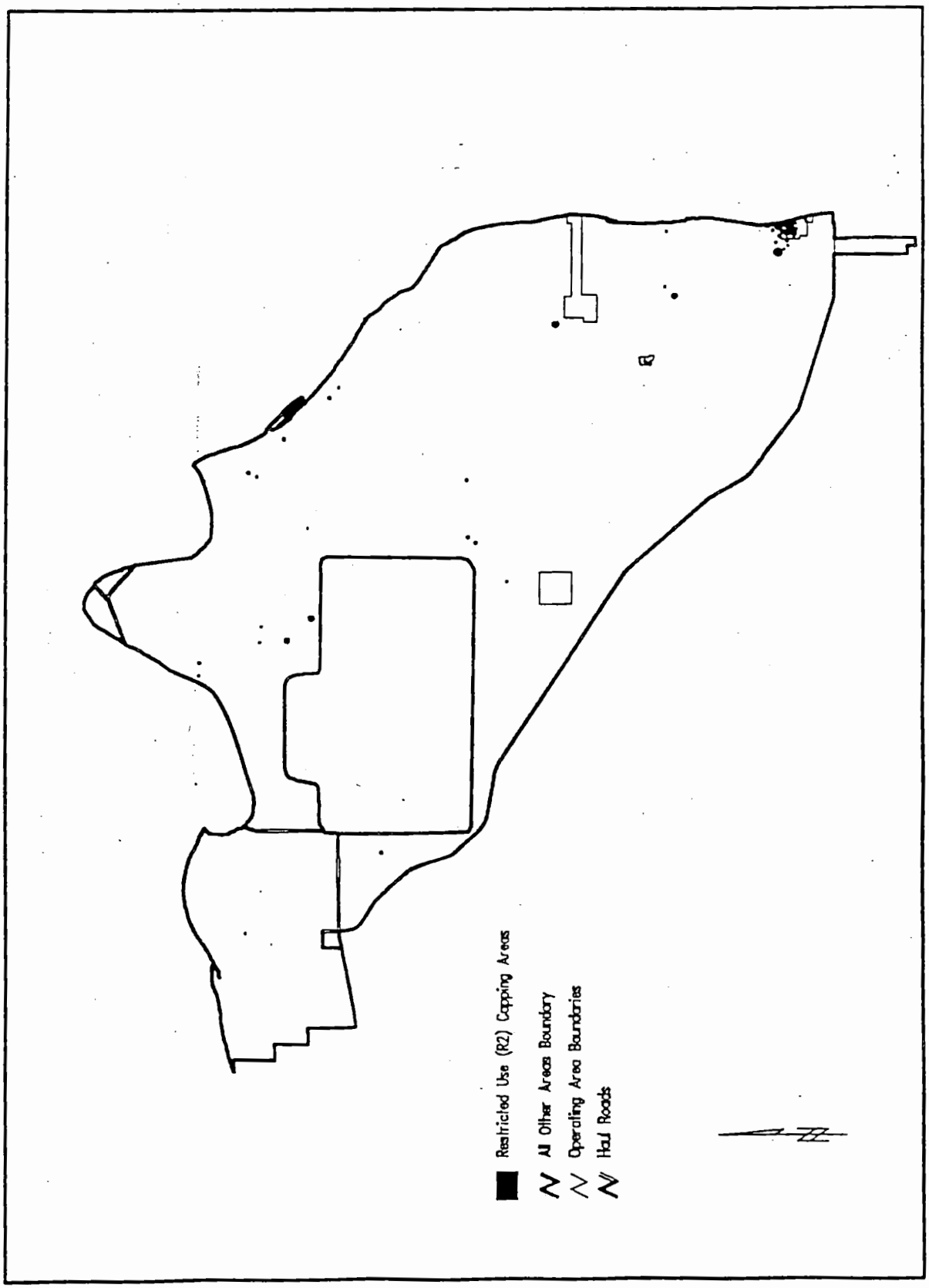



Figure H-8. Excavated area for restricted use (R1) of All Other Areas geographic area.

*Figure H-8. Capped Area for Restricted Use (R2) of All Other Areas Geographic Area.*



### *H.4.2 Results*

Costs are given in Tables H-11 to H-14 and H-27 by geographic area for each alternative.

## *H.5 Disturbed Areas*

Disturbed areas for each future land-use alternative for the four geographic areas are shown on Figures H-1 to H-8. The GIS is used to estimate the impact areas associated with geology, soils, vegetation, wetlands, habitat, threatened and endangered species, and archaeological sites. The specific impacts examined include full and partial excavation, capping, associated trample zones, the effects of haul roads, quarry sites, and ground water treatment. A summary of information by geographic area and scenario is presented in Tables H-28 to H-41.

The impacts are determined by overlaying the disturbed areas over each resource layer through the use of GIS. An area is calculated for each waste site from the excavated volume and the depth. The disturbed areas are calculated by multiplying the maximum top width (x) and the maximum top length (y) as shown in Section H.3.1.12. The radius is then calculated for each area.

The circle is generated using the calculated radius centered at the waste site location described in the WIDS file. This process is used for all point impact analysis with the exception of no action. The No-Action Alternative uses a similar procedure, but the dimensions are obtained directly from WIDS or the model described in Section H.3.1.12.

Analysis is performed using ARC/INFO (version 6.1.2) on a Sun SPARC station 2 UNIX platform. Additional support is provided via PC ARC/INFO and Excel. The analysis consists of several overlay functions including buffering, clipping, and erasing.

The Hanford database consists of approximately 750 megabytes of data including ARC/INFO coverages, DXF files, and various images. Clip coverages are developed by buffering various features and site types to create a clustering of polygons. Buffer distances are generated from existing documents, the WIDS database, and by a series of models developed using ARC/INFO Macro Language (AML). This process created polygon boundaries at a given distance from the specified features by eliminating areas of overlap. The resulting polygons function as "cookie-cutters" against the database to determine areas of impact. Seventeen data layers are evaluated by this method resulting in the creation of nearly 1,700 clips (or impact areas). The data associated with these clips contain information relating to the type, number, length and area of impact. This information is extracted and transferred to Excel for filtering and summation.

Types of activities evaluated during analysis include excavation, capping, and other surface impacts, all indicative of remediation options such as Unrestricted Future Land-Use Alternative, Restricted Future Land-Use Alternative (R1), Restricted Future Land-Use Alternative (R2), and Exclusive Future Land-Use Alternative. All excavation data is derived from WIDS. Capping is accomplished by "clustering" WIDS point data into polygon features. These clusters serve as a base upon which the size of the cap is estimated via an AML model. Other surface impacts are assigned buffers relative to feature type. The features contained inside the area of the polygons identify potential impacts.

The locations of effluent lines and outfall lines are inferred from WHC (1993). The locations are interpreted to run between the dirty side of the reactors to the retention basins and from the retention basins to the outfall structures and the overflow trenches. A buffer distance is developed from these interpreted lines and the buffer distances shown previously.

The haul road locations are developed from the modified *Task 6 Preconceptual Engineering Study for the Selection and Design of the Transporter Haul Route* report preferred alternatives. These haul roads are modified to include roads to N Reactor, quarry sites, and ERDF. The resulting road network is then buffered by 10 m (33 ft). The affected features of this polygon are determined with GIS. The locations of wells, pipeline networks, and treatment facilities are determined from Appendix D. The locations of quarry sites is provided by personal communication with WHC. The areas are analyzed with GIS to determine affected features.

***Table H-1. Equipment Mobilized for Excavating Waste Sites.***

| Amount | Excavation Equipment |
|---|---|
| 8 | 15- to 19-yd$^3$ off-road dump truck |
| 1 | 14- to 25-ton hydraulic crane |
| 1 | 0.5-yd$^3$ hydraulic excavator |
| 1 | 3.6- to 5.5-yd$^3$ hydraulic excavator crawler |
| 1 | 0.5- to 1.5-yd$^3$ front end loader |
| 1 | 6.1- to 8.0-yd$^3$ front end loader |
| 1 | 210 HP landfill compactor and roller |
| 1 | 126 to 150 HP motor grader |
| 1 | 226 to 350 HP crawler dozer with blade |
| 1 | 76 to 95 HP farm type tractor |
| 2 | 6,000 gallon water truck |
| 3 | Off-road tractor trailer |

***Table H-2. Equipment Mobilized for Capping Waste Sites.***

| Amount | Capping Equipment |
|---|---|
| 8 | 15-to 19-yd$^3$ off-road dump truck |
| 2 | 150-ton lifting crane |
| 1 | 0.5-yd$^3$ hydraulic excavator |
| 1 | 2000-gallon asphalt distributor |
| 1 | 75- to 350-gallon asphalt kettles |
| 1 | 10 ft pneumatic asphalt finisher/paver |
| 1 | 3.1- to 4.0-yd$^3$ front end loader |
| 1 | 6.1- to 8.0-yd$^3$ front end loader |
| 1 | 210 HP landfill compactor and roller |
| 1 | 226 to 350 HP crawler dozer with blade |
| 1 | 76 to 95 HP farm type tractor |
| 2 | 6,000-gallon water truck |

*Table H-3. Materials of Construction and Associated Depths for Hanford Barriers.*

| Amount | Material |
|---|---|
| 60 cm (24 in.) | Contour fill layer |
| 10 cm (4 in.) | Asphalt base course |
| 15 cm (6 in.) | Asphalt |
| 30 cm (12 in.) | Gravel drainage layer |
| 152 cm (60 in.) | Crushed basalt biobarrier and side slopes |
| 30 cm and 15 cm (12 in. and 6 in.) | Gravel and sand filter layers |
| negligible | Geotextile layer |
| 102 cm (40 in.) | Lower silt layer |
| 102 cm (40 in.) | Upper silt layer with pea gravel admix |

*Table H-4. Materials of Construction and Associated Depths for Modified RCRA C Barrier.*

| Amount | Material |
|---|---|
| 152 cm (60 in.) | Grading fill |
| 10 cm (4 in.) | Asphalt base course |
| 15 cm (6 in.) | Low-permeability asphalt layer |
| 15 cm (6 in.) | Lateral drainage layer (gravel) |
| 15 cm ea. (6 in. ea.) | Gravel and sand filter layers |
| 51 cm (20 in.) | Compacted silt loam topsoil |
| 51 cm (20 in.) | Silt loam topsoil with pea gravel admix |

*Table H-5. Equipment Mobilized for Dredging the River or Removing Pipelines.*

| Amount | Excavation Equipment |
|---|---|
| 1 | 1200-ton barge |
| 8 | 15-to 19-yd$^3$ off-road dump truck |
| 1 | Barge mounted crane |
| 1 | 1.5-yd$^3$ clam bucket |
| 1 | 2.5-yd$^3$ hydraulic excavator crawler |
| 1 | 4.5-yd$^3$ dragline clam |
| 1 | 6.1-to 8.0-yd$^3$ front end loader |
| 1 | 500-ft lb hydraulic hammer |
| 1 | 80-ton pile hammer |
| 1 | 150 to 300 HP tug boat |
| 1 | Skiff and outboard |
| 1 | 5.5-gpm water blaster |
| 2 | Highway trucks |
| 3 | 70-ton tractor trailer |

*Table H-6. Equipment Mobilized for Decommissioning of Buildings.*

| Amount | Excavation Equipment |
|---|---|
| 1 | 3.7-$yd^3$ hydraulic excavator |
| 1 | 0.5- to 1.5-$yd^3$ front end loader |
| 1 | 6.1- to 8.0-$yd^3$ front end loader |
| 2 | 38 in. rotating mobile shear |
| 2 | 2-$yd^3$ rotating grapple |
| 2 | Concrete pulverizer |
| 1 | Highway truck |
| 1 | Flatbed truck |

*Table H-7. Equipment Mobilized for Concrete Stock Removal.*

| Amount | Excavation Equipment |
|---|---|
| 1 | 45-ton hydraulic crane |
| 1 | 2.25-$yd^3$ hydraulic excavator |
| 1 | 0.5- to 1.5-$yd^3$ front end loader |
| 1 | 6.1- to 8.0-$yd^3$ front end loader |
| 1 | 35 in. rotating mobile shear |
| 1 | 1.25-$yd^3$ rotating grapple |
| 1 | 42 in. concrete pulverizer |
| 1 | Highway truck |
| 1 | Flatbed truck |

*Table H-8. Variables for Volumetric Models.*

| Variable | Definition |
|---|---|
| x1 | Disposal cell width |
| x2 | Maximum width of waste plume |
| xxx2 | Maximum width of waste plume (Phase 3) |
| X | Maximum top excavation width |
| XX | Maximum top excavation width (Phase 2) |
| | |
| y1 | Disposal cell length |
| y2 | Maximum length of waste plume |
| yyy2 | Maximum length of waste plume (Phase 3) |
| Y | Maximum top excavation length |
| YY | Maximum top excavation length (Phase 2) |
| | |
| z1 | Disposal cell depth |
| z2 | Depth of waste plume beneath disposal cell |
| z3 | Depth of overburden or depth below grade to top of |
| zzz3 | Depth of overburden (Phase 3) |
| Z | Maximum depth of excavation |
| | |
| a | Lateral plume dispersion |
| m | Waste cell/excavation slope |
| As | Surface area of excavation |
| Vcs | Contaminated soil volume |
| Vncs | Non-contaminated soil volume |
| | |
| Vex | Excavation volume |
| Vo | Overburden volume |
| Vd | Demolition volume |
| Vramp | Ramp volume |
| Vtot | Total volume |
| Vswell | Swell volume |

*Table H-9. Critical Variables from WIDS Used to Derive Values for Volumetric Models.*

| Field Name | Units | Variable |
|---|---|---|
| Site type | | * |
| Width | ft | x1 |
| Length | ft | y1 |
| Area | $ft^2$ | x1 · y1 |
| Diameter | ft | $(x1 \cdot y1)/\pi$ |
| Distdpth | ft | z1 |
| Ovbdpth | ft | z3 |

*Site type must be specified prior to executing volumetric models.

*Table H-10. Models Selected by Site Type.*

| MODEL | SITE TYPE |
|---|---|
| 1 | 1*, 3, 4, 7, 10, 11, 12, 15, 16 17, 18, 19, 20, 21, 33, 36, 40, 41, 43, 44, 45, 48, and 49 |
| 2 | 1*, 2, 5, and 6 |
| 3 | 8, 9, 13, 28, 29, 31, 34, 35, 38, 39, and 46 |
| *If description was Crib, model 1 was used; if description was Crib/Trench, model 2 was used. | |

| SITE TYPE | DESCRIPTION |
|---|---|
| 1 | Crib |
| 2 | Trench |
| 3 | Reverse well |
| 4 | French drain |
| 5 | Ditch |
| 6 | Pond |
| 7 | Unplanned release |
| 8 | Demolition and inert landfill |
| 9 | Burial ground |
| 10 | Valve pit |
| 11 | Brine pit |
| 12 | Retention basin |
| 13 | Dumping area |
| 15 | Septic tank |
| 16 | Storage tank |
| 17 | Settling tank |
| 18 | Catch tank |
| 19 | Neutralization tank |
| 20 | Receiving vault |
| 21 | Diversion box |
| 28 | Building |
| 29 | Test treatment or support facility |
| 31 | Stack |
| 33 | Staging area |
| 34 | Landfill |
| 35 | Silo |
| 36 | Drain field |
| 38 | Ash pit |
| 39 | Burning pit |
| 40 | Neutralization unit |
| 41 | Sewer |
| 43 | Sump |
| 44 | Pump station |
| 45 | Control structure |
| 46 | Pit |
| 48 | Outfall structure |
| 49 | Sand filter |
| 50 | Injection well |

*Table H-11. Volume and Cost Summary for the Columbia River Geographic Area (2 pages).*

| Remedial Activity | Total Soil Volume (BCM) | Contaminated Soil Volume (BCM) | Total Cost | Mobilization | Monitoring | Water | Solids | Restoration |
|---|---|---|---|---|---|---|---|---|
| U Full Excavation | 10,469 | 834 | $1,162,917 | $105,097 | $692,849 | $3,196 | $174,042 | $146,975 |
| R Capping | 0 | 0 | $8,360,828 | $185,411 | $606,492 | $5,864 | $3,440,572 | $4,082,656 |
| R Outfall Pipeline (Covered in effl. lines) | | | | | | | | |
| R Outfall Capping of Pipeline | 0 | 0 | $35,448,347 | $826,038 | $2,417,390 | $24,848 | $13,674,027 | $18,327,146 |
| U Transportation - Haul - Tran + O&M | | | $2,105,935,371 | | | | | |
| R Transportation - Haul - Tran + O&M | | | $48,731,277 | | | | | |
| U Transportation - Rail - Tran + O&M | | | $92,789,558 | | | | | |
| R Transportation - Rail - Tran + O&M | | | $2,520,583 | | | | | |
| U Trench | 8,320,299 | 10,643,095 | $2,547,348,489 | $137,885 | $1,791,971,232 | $7,879 | $409,601,022 | $345,600,924 |
| U D & D | | | $36,723,500 | $306,767 | | | $36,353,390 | |
| | | | | | | | | |
| U Total with Haul | 8,330,768 | 10,643,929 | $4,691,170,277 | $549,749 | $1,792,664,081 | $11,075 | $446,128,454 | $345,747,899 |
| U Total with Rail | 8,330,768 | 10,643,929 | $2,678,024,464 | $549,749 | $1,792,664,081 | $11,075 | $446,128,454 | $345,747,899 |
| R Total with Haul | 0 | 0 | $92,540,452 | $1,011,449 | $3,023,882 | $30,712 | $17,114,599 | $22,409,802 |
| R Total with Rail | 0 | 0 | $46,329,758 | $1,011,449 | $3,023,882 | $30,712 | $17,114,599 | $22,409,802 |

*Table H-11. Volume and Cost Summary for the Columbia River Geographic Area (2 pages).*

| Remedial Activity | Demobilization | Fuel (gallons) | Field (hours) | Administration (hours) | Professional (hours) | Total Labor (hours) | Duration (days) |
|---|---|---|---|---|---|---|---|
| U Full Excavation | $40,758 | 23,227 | 3,995 | 201 | 2,035 | 6,231 | 71 |
| R Capping | $39,833 | 78,876 | 20,993 | 332 | 5,568 | 26,893 | 438 |
| R Outfall Pipeline (Covered in effl. lines) | | | | | | | |
| R Outfall Capping of Pipeline | $178,897 | 310,060 | 84,573 | 1,345 | 22,497 | 108,414 | 1,736 |
| U Transportation - Haul - Tran + O&M | | 27,231,923 | 14,299,301 | | | 14,299,301 | |
| R Transportation - Haul - Tran + O&M | | 630,146 | 330,885 | | | 330,885 | |
| U Transportation - Rail - Tran + O&M | | 4,639,478 | 367,447 | | | 367,447 | |
| R Transportation - Rail - Tran + O&M | | 126,029 | 9,982 | | | 9,982 | |
| U Trench | $29,547 | 27,286,068 | 6,199,720 | 112,691 | 3,176,762 | 9,489,173 | 52,294 |
| U D & D | $87,256 | 570,343 | 29,363 | 610 | 4,800 | 34,773 | |
| | | | | | | | |
| U Total with Haul | $157,561 | 55,111,561 | 20,532,379 | 113,502 | 3,183,597 | 23,829,478 | 52,365 |
| U Total with Rail | $157,561 | 32,519,116 | 6,600,525 | 113,502 | 3,183,597 | 9,897,624 | 52,365 |
| R Total with Haul | $218,730 | 1,019,082 | 436,451 | 1,677 | 28,065 | 466,192 | 2,174 |
| R Total with Rail | $218,730 | 514,965 | 115,548 | 1,677 | 28,065 | 145,289 | 2,174 |

*Table II-12. Volume and Cost Summary for the Reactors on the River Geographic Area (2 pages).*

| Remedial Activity | Total Soil Volume (BCM) | Contaminated Soil Volume (BCM) | Total Cost | Mobilization | Monitoring | Water | Solids |
|---|---|---|---|---|---|---|---|
| U Full Excavation | 9,356,783 | 5,598,119 | $2,034,389,223 | $17,303,460 | $1,440,842,353 | $904,444 | $331,400,128 |
| R1 Partial Excavation | 5,935,373 | 3,520,134 | $1,319,600,870 | $16,748,583 | $923,712,106 | $825,190 | $213,207,999 |
| Capping | 0 | 0 | $1,508,117,699 | $17,624,122 | $169,616,075 | $1,060,115 | $947,738,771 |
| U, R1 Effluent Lines | 4,316,422 | 1,065,215 | $486,127,284 | $366,238 | $361,453,464 | $0 | $85,292,854 |
| R2 Effluent Capping | 0 | 0 | $108,192,552 | $2,012,689 | $9,196,937 | $88,399 | $53,020,568 |
| U, R1, R2 Haul Roads non recurring const | | | $23,678,205 | | | | |
| U Transportation - Haul - Tran + O&M | | | $1,051,865,109 | | | | |
| R1 Transportation - Haul - Tran + O&M | | | $742,195,752 | | | | |
| R2 Transportation - Haul - Tran + O&M | | | $2,708,916,967 | | | | |
| U Transportation - Rail - Tran + O&M | | | $48,066,670 | | | | |
| R1 Transportation - Rail - Tran + O&M | | | $33,786,078 | | | | |
| R2 Transportation - Rail - Tran + O&M | | | $140,116,395 | | | | |
| U, R1, R2 Rail - Non recurring const | | | $2,952,144 | | | | |
| Ground Water - U | | | $204,535,312 | | | | |
| Ground Water - R1 | | | $204,535,312 | | | | |
| Ground Water - R2 | | | $204,535,312 | | | | |
| U, R1,R2 D & D | | | $47,507,410 | $6,694,723 | $2,965,405 | | $34,478,707 |
| | | | | | | | |
| U Total with Haul | 13,673,205 | 6,663,334 | $3,848,102,543 | $24,364,421 | $1,805,261,222 | $904,444 | $451,171,689 |
| U Total with Rail | 13,673,205 | 6,663,334 | $2,823,576,043 | $24,364,421 | $1,805,261,222 | $904,444 | $451,171,689 |
| R1 Total with Haul | 10,251,795 | 4,585,348 | $2,823,644,833 | $23,809,544 | $1,288,130,975 | $825,190 | $332,979,560 |
| R1 Total with Rail | 10,251,795 | 4,585,348 | $2,094,509,098 | $23,809,544 | $1,288,130,975 | $825,190 | $332,979,560 |
| R2 Total with Haul | 0 | 0 | $4,600,948,145 | $26,331,534 | $181,778,417 | $1,148,514 | $1,035,238,046 |
| R2 Total with Rail | 0 | 0 | $2,011,421,512 | $26,331,534 | $181,778,417 | $1,148,514 | $1,035,238,046 |

*Table H-12. Volume and Cost Summary for the Reactors on the River Geographic Area (2 pages).*

| Remedial Activity | Restoration | Demobilization | Fuel (gallons) | Field (hours) | Administration (hours) | Professional (hours) | Total Labor (hours) | Duration (days) |
|---|---|---|---|---|---|---|---|---|
| U Full Excavation | $238,392,543 | $5,546,295 | 19,745,376 | 4,988,453 | 102,644 | 2,782,250 | 7,873,347 | 48,438 |
| R1 Partial Excavation | $159,596,284 | $5,510,708 | 11,924,513 | 3,297,143 | 65,847 | 1,817,088 | 5,180,077 | 32,154 |
| Capping | $368,525,454 | $3,553,161 | 20,699,061 | 5,612,709 | 91,699 | 1,519,309 | 7,223,718 | 131,692 |
| U, R1 Effluent Lines | $38,759,473 | $255,255 | 6,325,257 | 1,265,917 | 38,684 | 977,909 | 2,282,510 | 19,342 |
| R2 Effluent Capping | $43,457,399 | $416,560 | 1,064,521 | 319,806 | 5,161 | 85,048 | 410,016 | 6,760 |
| U, R1, R2 Haul Roads non recurring const | | | 1,985,852 | 101,106 | | | 101,106 | |
| U Transportation - Haul - Tran + O&M | | | 13,601,704 | 7,142,164 | | | 7,142,164 | |
| R1 Transportation - Haul - Tran + O&M | | | 9,597,359 | 5,039,509 | | | 5,039,509 | |
| R2 Transportation - Haul - Tran + O&M | | | 35,029,099 | 18,393,546 | | | 18,393,546 | |
| U Transportation - Rail - Tran + O&M | | | 2,403,333 | 190,344 | | | 190,344 | |
| R1 Transportation - Rail - Tran + O&M | | | 1,689,304 | 133,793 | | | 133,793 | |
| R2 Transportation - Rail - Tran + O&M | | | 7,005,820 | 554,861 | | | 554,861 | |
| U, R1, R2 Rail - Non recurring const | | | | 915 | | | 915 | |
| Ground Water - U | | | | | | 432,430 | 432,430 | 3,650 |
| Ground Water - R1 | | | | | | 432,430 | 432,430 | 3,650 |
| Ground Water - R2 | | | | | | 432,430 | 432,430 | 3,650 |
| U, R1,R2 D & D | $3,267,662 | $98,480 | 773,951 | 128,231 | 13,942 | 237,022 | 379,195 | |
| | | | | | | | | |
| U Total with Haul | $280,419,678 | $5,900,030 | 42,432,140 | 13,625,871 | 155,270 | 4,429,611 | 18,210,752 | 71,430 |
| U Total with Rail | $280,419,678 | $5,900,030 | 29,247,917 | 6,573,860 | 155,270 | 4,429,611 | 11,158,741 | 71,430 |
| R1 Total with Haul | $201,623,419 | $5,864,443 | 30,606,932 | 9,831,906 | 118,473 | 3,464,449 | 13,414,827 | 55,146 |
| R1 Total with Rail | $201,623,419 | $5,864,443 | 20,713,025 | 4,825,999 | 118,473 | 3,464,449 | 8,408,920 | 55,146 |
| R2 Total with Haul | $415,250,515 | $4,068,201 | 59,552,484 | 24,555,398 | 110,802 | 1,841,379 | 26,507,581 | 138,452 |
| R2 Total with Rail | $415,250,515 | $4,068,201 | 29,543,353 | 6,616,522 | 110,802 | 1,841,379 | 8,568,705 | 138,452 |

*Table H-13. Volume and Cost Summary for the Central Plateau Geographic Area.*

| Remedial Activity | Total Soil Volume (BCM) | Contaminated Soil Volume (BCM) | Total Cost | Mobilization | Monitoring | Water | Solids |
|---|---|---|---|---|---|---|---|
| E Capping | 0 | 0 | $1,102,800,310 | not specified - included in capping costs | | | |
| E Transportation - Haul - Tran + O&M | | | | | | | |
| E Ground Water | | | $411,232,871 | | | | |
| | | | | | | | |
| E Total with Haul | 0 | 0 | $1,514,033,181 | | | | |

| Remedial Activity | Restoration | Demobilization | Fuel (gallons) | Field (hours) | Administration (hours) | Professional (hours) | Total Labor (hours) | Duration (days) |
|---|---|---|---|---|---|---|---|---|
| E Capping | | not specified | not specified | 6,339,920 | 2,015,330 | | 8,355,250 | not specified |
| E Transportation - Haul - Tran + O&M | not specified | | | not specified | | | | |
| E Ground Water | | | | | | 640,030 | 640,030 | |
| | | | | | | | | |
| E Total with Haul | $0 | | | 6,339,920 | 2,015,330 | 640,030 | 8,995,280 | |

*Table H-14. Volume and Cost Summary for All Other Areas Geographic Area (2 pages).*

| Remedial Activity | Total Soil Volume (BCM) | Contaminated Soil Volume (BCM) | Total Cost | Mobilization | Monitoring | Water | Solids |
|---|---|---|---|---|---|---|---|
| R1 Partial Excavation | 3,176,892 | 1,603,048 | $616,379,477 | $5,808,136 | $427,554,792 | $374,224 | $98,375,571 |
| R2 Capping | 0 | 0 | $671,124,031 | $5,721,379 | $83,871,552 | $471,468 | $462,437,475 |
| R1 Transportation - Haul - Tran + O&M | | | $383,994,118 | | | | |
| R2 Transportation - Haul - Tran + O&M | | | $2,456,393,768 | | | | |
| R1 Transportation - Rail - Tran + O&M | | | $24,599,079 | | | | |
| R2 Transportation - Rail - Tran + O&M | | | $91,341,545 | | | | |
| R1 Ground Water | | | $31,202,707 | | | | |
| R2 Ground Water | | | $31,202,707 | | | | |
| | | | | | | | |
| R1 Total with Haul | 3,176,892 | 1,603,048 | $1,031,576,302 | $5,808,136 | $427,554,792 | $374,224 | $98,375,571 |
| R1 Total with Rail | 3,176,892 | 1,603,048 | $672,181,263 | $5,808,136 | $427,554,792 | $374,224 | $98,375,571 |
| R2 Total with Haul | 0 | 0 | $3,158,720,506 | $5,721,379 | $83,871,552 | $471,468 | $462,437,475 |
| R2 Total with Rail | 0 | 0 | $793,668,283 | $5,721,379 | $83,871,552 | $471,468 | $462,437,475 |

*Table II-14. Volume and Cost Summary for All Other Areas Geographic Area (2 pages).*

| Remedial Activity | Restoration | Demobilization | Fuel (gallons) | Field (hours) | Administration (hours) | Professional (hours) | Total Labor (hours) | Duration (days) |
|---|---|---|---|---|---|---|---|---|
| R1 Partial Excavation | $82,522,981 | $1,743,774 | 6,109,775 | 1,558,599 | 31,981 | 816,445 | 2,407,024 | 16,598 |
| R2 Capping | $117,500,595 | $121,562 | 10,293,221 | 2,728,157 | 44,990 | 745,099 | 3,518,246 | 65,854 |
| R1 Transportation - Haul - Tran + O&M | | | 4,965,441 | 2,607,320 | | | 2,607,320 | |
| R2 Transportation - Haul - Tran + O&M | | | 31,763,713 | 16,678,914 | | | 16,678,914 | |
| R1 Transportation - Rail - Tran + O&M | | | 1,229,954 | 97,412 | | | 97,412 | |
| R2 Transportation - Rail - Tran + O&M | | | 4,567,077 | 361,713 | | | 361,713 | |
| R1 Ground Water | | | | | | 277,041 | 277,041 | 3,650 |
| R2 Ground Water | | | | | | 277,041 | 277,041 | 3,650 |
| | | | | | | | | |
| R1 Total with Haul | $82,522,981 | $1,743,774 | 11,075,216 | 4,165,919 | 31,981 | 1,093,486 | 5,291,385 | 20,248 |
| R1 Total with Rail | $82,522,981 | $1,743,774 | 7,339,729 | 1,656,011 | 31,981 | 1,093,486 | 2,781,477 | 20,248 |
| R2 Total with Haul | $117,500,595 | $121,562 | 42,056,934 | 19,407,071 | 44,990 | 1,022,140 | 20,474,201 | 69,504 |
| R2 Total with Rail | $117,500,595 | $121,562 | 14,860,298 | 3,089,870 | 44,990 | 1,022,140 | 4,157,000 | 69,504 |

## Table H-15. Volume Totals for Capping in Cubic Meters.

| Remedial Activity | Drainage Gravel | Gravel | Basalt | Asphalt Base | Contour Fill | Lower Silt | Upper Silt | Sand | Asphalt | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| All Other Areas Capping | 388,781 | 388,781 | 3,887,806 | 128,298 | 777,561 | 1,294,640 | 1,294,640 | 194,390 | 307,914 | 8,662,811 |
| Columbia River Capping | 3,040 | 3,040 | 30,397 | 1,003 | 6,079 | 10,123 | 10,123 | 1,520 | 2,408 | 67,733 |
| Columbia River Pipeline Capping | 12,154 | 12,154 | 121,545 | 4,011 | 24,309 | 40,474 | 40,474 | 6,077 | 9,626 | 270,826 |
| Reactors on the River Effluent Lines Capping | 43,830 | 43,830 | 438,302 | 14,464 | 87,660 | 145,955 | 145,955 | 21,915 | 34,714 | 976,625 |
| Reactors on the River Capping | 800,795 | 800,795 | 8,007,954 | 264,263 | 1,601,591 | 2,666,649 | 2,666,649 | 400,397 | 634,230 | 17,843,323 |





9615470.0697

*Table H-16. Materials of Construction and Volumes for use of the Modified RCRA C Barrier in the Central Plateau Geographic Area.*

| Material | Volume |
|---|---|
| Grading fill | 8,178,755 $m^3$ (10,761,520 $yd^3$) |
| Asphalt base course | 545,262 $m^3$ (717,450 $yd^3$) |
| Low-permeability asphalt layer | 1,895,931 ton (2,106,590 short tons) |
| Lateral drainage layer (gravel) | 817,886 $m^3$ (1,076,140 $yd^3$) |
| Gravel filter layer | 817,886 $m^3$ (1,076,140 $yd^3$) |
| Sand filter layer | 817,886 $m^3$ (1,076,140 $yd^3$) |
| Compacted silt loam topsoil | 2,726,272 $m^3$ (3,587,200 $yd^3$) |
| Silt loam topsoil with pea gravel admix | 2,822,374 $m^3$ (3,713,650 $yd^3$) |

*Table H-17. Proposed Treatment Methods by Geographic Area.*

| Area | Treatment Method |
|---|---|
| Reactors on the River | Ion Exchange/Reverse Osmosis/GAC |
| Central Plateau | Ion Exchange/Reverse Osmosis/GAC |
| All Other Areas | Reverse Osmosis/GAC |

*Table H-18. Capital Costs for Treatment System.*

| Area | Cumulative Pumping Rate | Cost |
|---|---|---|
| Reactors on the River | 1200 gpm | 4 • $1,693,640 |
| Central Plateau | 2550 gpm | 9 • $1,693,640 |

*Table H-19. O&M Costs for Treatment System.*

| Area | Equation | Total Cost |
|---|---|---|
| **Reactors on the River** | | |
| Resin regeneration | 4 • $842,080 | $3,368,320 |
| Electric, gas, water | 4 • $24,000 | $96,000 |
| Labor | $285,220 + $172,017 | $457,237 |
| Total | | $3,921,557 |
| **Central Plateau** | | |
| Resin regeneration | 9 • $842,080 | $7,578,720 |
| Electric, gas, water | 9 • $24,000 | $216,000 |
| Labor | $285,220 + $458,712 | $743,932 |
| Total | | $8,538,652 |

*Table H-20. Granular Activated Carbon Units Required by Geographic Area.*

| Area | Cumulative Pumping Rate | GAC Units |
|---|---|---|
| Reactors on the River | 1200 gpm | 12 (8 operating, 4 backup) |
| Central Plateau | 2550 gpm | 26 (17 operating, 9 backup) |
| All Other Areas | 200 gpm | 3 (2 operating, 1 backup) |

*Table H-21. Granular Activated Carbon Capital Costs by Geographic Area.*

| Area | Equation | GAC Capital Costs |
|---|---|---|
| Reactors on the River | $561,805 • 4/3 | $749,073 |
| Central Plateau | $561,805 • 9/3 | $1,685,415 |
| All Other Areas | $561,805 • 1/3 | $187,643 |

*Table H-22. Granular Activated Carbon O&M Costs by Geographic Area.*

| Area | Equation | Total Cost |
|---|---|---|
| **Reactors on the River** | | |
| Replace GAC | $1,160 • 4 | $4,640 |
| Electric, gas, water | $20,000 • 4 | $80,000 |
| Labor | $332,837 + $172,017 | $504,854 |
| Total | | $589,494 |
| **Central Plateau** | | |
| Replace GAC | $1,160 • 9 | $10,440 |
| Electric, gas, water | $20,000 • 9 | $180,000 |
| Labor | $332,837 + $458,712 | $791,549 |
| Total | | $981,989 |
| **All Other Areas** | | |
| Replace GAC | -- | $1,160 |
| Electric, gas, water | -- | $20,000 |
| Labor | -- | $332,837 |
| Total | | $353,997 |

*Table H-23. Starting/Ending Point for Road/Rail Distances.*

| Area | Distance Measuring Point(s) |
|---|---|
| Reactors on the River | Each operable unit |
| Columbia River | Operable unit - 100-H Area |
| All Other Areas | 300 Area |

*Table H-24. Components of Recurring and Nonrecurring Costs for Road and Rail Upgrades.*

| | |
|---|---|
| **Rail Non-Recurring (Construction)**<br>Locomotives<br>Railroad track upgrade<br>Rail car assembly<br>Rail car welding | **Rail Recurring (O & M)**<br>Locomotives lease<br>Railroad track maintenance<br>Locomotive operations<br>Rail maintenance facility |
| **Road Nonrecurring (Construction)**<br>Trucks<br>Trailers<br>Construction equipment<br>Road material | **Road Recurring (O & M)**<br>Trucks<br>Trailers<br>Roller<br>Roadbase stockpile<br>Truck operations<br>Road crew operations<br>Containers<br>Container handlers<br>Container maintenance |

*Table H-25. Unit Costs for Road and Rail Upgrades.*

| Cost | Per Unit of Measurement |
|---|---|
| Construction | |
| Rail nonrecurring | $78/meter |
| Rail recurring | $.0003/per LCM/per meter |
| Road nonrecurring | $344.23/per meter |
| Road recurring | $00.58 per LCM/per meter |
| Fuel Consumption and Use | |
| Rail recurring | .000015 gallons/per LCM/meter |
| Road nonrecurring | 28.87 gallons/per meter |
| Road recurring | .000075 gallons/per LCM/per meter |
| Labor Hours | |
| Rail nonrecurring | .00031 hrs/per $ of rail construction |
| Road recurring | .00396 hrs/per $ of rail transportation |
| Road nonrecurring | .00427 hrs/per $ of road construction |
| Road recurring | .00679 hrs/per $ of road transportation |

*Table H-26. Relational Equations for Deriving Subcosts.*

| | | |
|---|---|---|
| Road transportation | = | Contaminated volume • haul distance • .0058 |
| Labor | = | Road transportation costs • .00679 |
| Fuel | = | Haul distance • contaminated volume • .000075 |
| Road construction | = | Distance of new roads • 344.23 |
| Labor | = | Road construction costs • .00427 |
| Fuel | = | Distance of new roads • 28.87 |
| Rail transportation | = | Rail distance • contaminated volume • .0003 |
| Labor | = | Rail transportation costs • .00396 |
| Fuel | = | Rail distance • contaminated volume • .000015 |
| Rail construction | = | Rail distance • 78 |
| Labor | = | Rail construction costs • .00031 |

*Table H-27. Input Parameters to Transportation Costs.*

| Area | Full Excavation Contaminated Volume (LCM) | Partial Excavation Contaminated Volume (LCM) | Capping Material Volume (LCM) | Road Distance (m) | Rail Distance (m) |
|---|---|---|---|---|---|
| **Columbia River** | | | | | |
| Excavation | 10,643,929[a] | -- | -- | 28,909 | 24,626 |
| Capping | -- | -- | 338,556[b] | 24,817 | 24,817 |
| **Reactors on the River** | | | | | |
| 100-BC | 1,205,716 | 807,357 | -- | 12,194 | 13,667 |
| 100-K | 1,679,407 | 872,028 | -- | 17,256 | 14,438 |
| 100-N | 391,625 | 375,015 | -- | 22,402 | 17,336 |
| 100-D | 1,529,743 | 977,904 | -- | 25,363 | 22,376 |
| 100-H | 2,105,557[c] | 1,774,544[d] | -- | 28,909 | 24,626 |
| 100-F | 950,586 | 603,863 | -- | 30,749 | 28,008 |
| 100 Area (Capping) | -- | -- | 18,819,948[e] | 24,817 | 24,817 |
| **All Other Areas** | | | | | |
| Excavation | -- | 1,891,597 | -- | 35,000 | 43,348 |
| Capping | -- | -- | 8,662,811 | 48,889 | 35,147 |

[a]Includes contaminated volume for trench.
[b]Includes pipeline capping volumes.
[c]Includes contaminated volumes for effluent lines.
[d]Includes contaminated volumes for effluent lines.
[e]Includes effluent lines capping volumes.

*Table H-28. No-Action Alternative for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Geological Formation (area) | | | | | |
| Qa | 88 | 13,066,224 | 0.0% | 35,229,739 | 0.0% |
| Qds | | 491,578 | 0.0% | 395,583,359 | 0.0% |
| Qfg(3-4u) | | 548,724 | 0.0% | 283,845,156 | 0.0% |
| WTR | | 28,163,721 | 0.0% | 28,185,411 | 0.0% |
| MVI(sp) | | | | 7,296,136 | 0.0% |
| Qda | | 441,550 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | 346,964 | 0.0% |
| MV(sem) | | | | 8,635,453 | 0.0% |
| QLS | | 581,416 | 0.0% | 1,431,924 | 0.0% |
| QD | | 1,265 | 0.0% | 1,264 | 0.0% |
| MV(WFS) | | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | 1,232,366 | 0.0% |
| QL | | | | 5,689,564 | 0.0% |
| Qaf | | | | 60,989 | 0.0% |
| Qfs | | | | 542 | 0.0% |
| Qfs3 | | | | 49,579,275 | 0.0% |
| Qfg | | 339,148 | 0.0% | 1,420,756 | 0.0% |
| Qfg(3) | | | | 5,383,077 | 0.0% |
| Qfg(1) | | | | 275,460 | 0.0% |
| Qplg | | | | 4,536,379 | 0.0% |
| PLMc | | 91,972 | 0.0% | 227,268 | 0.0% |
| PLMcg | | 157,931 | 0.0% | 157,924 | 0.0% |
| MVse | | | | 657,418 | 0.0% |
| MVsa | | | | 115,418 | 0.0% |
| MVsu | | | | 1,685,630 | 0.0% |
| MVwpr | | | | 683,570 | 0.0% |
| MVwr | | | | 427,399 | 0.0% |
| MC | | | | 409,989 | 0.0% |
| QFS(3-4u) | | 367,446 | 0.0% | 722,253 | 0.0% |
| Soils (area) | | | | | |
| Rupert Sand/Quincy Sand | | 1,186,117 | 0.0% | 363,240,560 | 0.0% |
| Burbank Loamy Sand | | 86,813 | 0.0% | 214,108,292 | 0.0% |
| Ephrata Sandy Loam | | 176,951 | 0.0% | 98,218,531 | 0.0% |
| Ephrata Stony Loam | | 859,359 | 0.0% | 19,465,389 | 0.0% |
| Pasco Silt Loam | | 39,602 | 0.0% | 1,779,706 | 0.0% |
| Riverwash | 35 | 1,962,698 | 0.0% | 4,858,130 | 0.0% |
| Kiona Silt Loam | | | | 18,513,547 | 0.0% |
| Dune Sand | | 2,917 | 0.0% | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | | 8,719,415 | 0.0% |
| Hezel Sand | | | | 25,989,076 | 0.0% |
| Koehler Sand | | | | 2,180,754 | 0.0% |

*Table H-28. No-Action Alternative for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Ritzville Silt Loam | | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | |
| Shrub Steppe on slopes | | | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | | | | 257,145,256 | 0.0% |
| Cheatgrass | | | | 82,214,075 | 0.0% |
| Abandoned | | | | 40,667,290 | 0.0% |
| Disturbed/Facilities | 54 | | | 41,824,676 | 0.0% |
| Water | 35 | | | 31,368,419 | 0.0% |
| Recovering SS on CR | | | | 344,935,542 | 0.0% |
| Riparian | | | | 8,530,755 | 0.0% |
| Sand | | | | 28,590,486 | 0.0% |
| Bunchgrasses | | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | 749,243 | 0.0% |
| Agriculture | | | | 129,892 | 0.0% |
| Basalt | | | | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | |
| U | | 8,899,449 | 0.0% | 814,429,104 | 0.0% |
| L1OWHH | 88 | 34,243,755 | 0.0% | 34,602,769 | 0.0% |
| PEM1CX | | | | 3,912 | 0.0% |
| POWFX | | | | 134,387 | 0.0% |
| POWHX | | | | 27,099 | 0.0% |
| POWFH | | 55,455 | 0.0% | 57,092 | 0.0% |
| PEM1C | | | | 81,960 | 0.0% |
| PEM1CH | | 214,931 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | 66,320 | 0.0% | 101,001 | 0.0% |
| POWH | | 13,541 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | | 233,974 | 0.0% |
| L1UBFH | | 14,920 | 0.0% | 21,351 | 0.0% |
| L2RSAH | | | | 73,873 | 0.0% |
| L2UBFH | | 44,561 | 0.0% | 56,490 | 0.0% |
| L2UBFX | | | | 133,861 | 0.0% |
| L2UBGH | | | | 20,365 | 0.0% |
| L2UBKFH | | 23,625 | 0.0% | 23,625 | 0.0% |
| L2USAH | | 120,501 | 0.0% | 120,501 | 0.0% |
| L2USCH | | 507,263 | 0.0% | 507,263 | 0.0% |
| PEM1F | | | | 1,975 | 0.0% |
| PFO1A | | | | 4,599 | 0.0% |
| POWF | | 4,408 | 0.0% | 16,054 | 0.0% |
| POWHH | | 32,985 | 0.0% | 55,151 | 0.0% |
| PSS/EM1CH | | 7,705 | 0.0% | 7,711 | 0.0% |

*Table H-28. No-Action Alternative for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| PSS/EM1FH | | 1,562 | 0.0% | 1,563 | 0.0% |
| PUBF | | | | 54,121 | 0.0% |
| Habitat (area) | | | | | |
| Riparian | | 7,745,172 | 0.0% | 41,135,033 | 0.0% |
| River | 88 | 35,381,256 | 0.0% | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | | 136 | 0.0% | 121,991,909 | 0.0% |
| Sagebrush/Sandberg's Bluegrass | | | | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | | | | 209,426,250 | 0.0% |
| Dunes | | | | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | 2,856,928 | 0.0% |
| Hopsage | | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | |
| Bald Eagle | | 2 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | 37 | 0.0% |
| Great Blue Heron | | 2 | 0.0% | 3 | 0.0% |
| Ferruginous Hawk | | | | 13 | 0.0% |
| Great Egret | | | | 1 | 0.0% |
| Prairie Falcon | | | | 5 | 0.0% |
| Common Loon | | 1 | 0.0% | 1 | 0.0% |
| Long-Billed Curlew | | | | 2 | 0.0% |
| American White Pelican | | 11 | 0.0% | 11 | 0.0% |
| Forster's Tern | | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | |
| Waterfowl | 35 | 16,318,628 | 0.0% | 16,605,001 | 0.0% |
| Bald Eagle | | 375,049 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | 463,000 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | 20,265,341 | 0.0% |
| Hawks | | | | | |
| Active Ferr. Nests | | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | 1 | 0.0% |
| Swainson's Nest | | 1 | 0.0% | 14 | 0.0% |
| Eagles | | | | | |
| Frequently used communal roost | | 1 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | 2 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | | 1 | 0.0% | 42 | 0.0% |
| Frequently used ground perches | | 54 | 0.0% | 60 | 0.0% |

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*Table H-28. No-Action Alternative for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Infrequently used ground perches | | 35 | 0.0% | 48 | 0.0% |
| Shrike | | | | | |
| Number | | | | 244 | 0.0% |
| Refuge (area) | | | | | |
| McNary National Wildlife | | 224 | 0.0% | 1,907,126 | 0.0% |
| Elk | | | | | |
| Area | | | | 3,483 | 0.0% |
| Archaeological Site | | | | | |
| Point data | | 33 | 0.0% | 462 | 0.0% |
| Area data | | 44,856 | 0.0% | 2,233,952 | 0.0% |
| Linear data | | | | 100,479 | 0.0% |

*Table H-29. Unrestricted Future Land-Use Alternative (full excavation) for Waste Sites Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Outfall Lines (sq m) | Trample Zone for Outfall Lines (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | | | |
| Qa | 2,658 | 5,159 | 22,193 | 26,056 | 56,066 | 13,066,224 | 0.4% | 35,229,739 | 0.2% |
| Qds | | | | | 0 | 491,578 | 0.0% | 395,583,359 | 0.0% |
| Qfg(3-4u) | | | 554 | 1,668 | 2,222 | 548,724 | 0.4% | 283,845,156 | 0.0% |
| WTR | | 225 | 53,029 | 66,820 | 120,074 | 28,163,721 | 0.4% | 28,185,411 | 0.4% |
| MVI(sp) | | | | | 0 | | | 7,296,136 | 0.0% |
| Qda | | | | | 0 | 441,550 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | | 0 | | | 346,964 | 0.0% |
| MV(sem) | | | | | 0 | | | 8,635,453 | 0.0% |
| QLS | | | | | 0 | 581,416 | 0.0% | 1,431,924 | 0.0% |
| QD | | | | | 0 | 1,265 | 0.0% | 1,264 | 0.0% |
| MV(WFS) | | | | | 0 | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | | 0 | | | 1,232,366 | 0.0% |
| QL | | | | | 0 | | | 5,689,564 | 0.0% |
| Qaf | | | | | 0 | | | 60,989 | 0.0% |
| Qfs | | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | | | | 0 | | | 49,579,275 | 0.0% |
| Qfg | | | | | 0 | 339,148 | 0.0% | 1,420,756 | 0.0% |
| Qfg(3) | | | | | 0 | | | 5,383,077 | 0.0% |
| Qfg(1) | | | | | 0 | | | 275,460 | 0.0% |
| Qplg | | | | | 0 | | | 4,536,379 | 0.0% |
| PLMc | | | | | 0 | 91,972 | 0.0% | 227,268 | 0.0% |
| PLMcg | | | | | 0 | 157,931 | 0.0% | 157,924 | 0.0% |
| MVse | | | | | 0 | | | 657,418 | 0.0% |
| MVsa | | | | | 0 | | | 115,418 | 0.0% |
| MVsu | | | | | 0 | | | 1,685,630 | 0.0% |
| MVwpr | | | | | 0 | | | 683,570 | 0.0% |
| MVwr | | | | | 0 | | | 427,399 | 0.0% |
| MC | | | | | 0 | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | | 0 | 367,446 | 0.0% | 722,253 | 0.0% |
| Soils (area) | | | | | | | | | |
| Rupert Sand/ Quincy Sand | | | | | 0 | 1,186,117 | 0.0% | 363,240,560 | 0.0% |
| Burbank Loamy Sand | | | | | 0 | 86,813 | 0.0% | 214,108,292 | 0.0% |
| Ephrata Sandy Loam | | | 3,602 | 3,695 | 7,297 | 176,951 | 4.1% | 98,218,531 | 0.0% |
| Ephrata Stony Loam | | | 15,291 | 20,504 | 35,795 | 859,359 | 4.2% | 19,465,389 | 0.2% |
| Pasco Silt Loam | | | | | 0 | 39,602 | 0.0% | 1,779,706 | 0.0% |
| Riverwash | 1,055 | 1,333 | 1,275 | 2,526 | 6,189 | 1,962,698 | 0.3% | 4,858,130 | 0.1% |
| Kiona Silt Loam | | | | | 0 | | | 18,513,547 | 0.0% |
| Dune Sand | | | | | 0 | 2,917 | 0.0% | 21,880,836 | 0.0% |

*Table H-29. Unrestricted Future Land-Use Alternative (full excavation) for Waste Sites Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Outfall Lines (sq m) | Trample Zone for Outfall Lines (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Esquatzel Silt Loam | | | | | 0 | | | 8,719,415 | 0.0% |
| Hezel Sand | | | | | 0 | | | 25,989,076 | 0.0% |
| Koehler Sand | | | | | 0 | | | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | | 0 | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | | 0 | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | | | | | |
| Shrub Steppe on slopes | | | | | 0 | | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | | | 2,288 | 1,833 | 4,121 | | | 257,145,256 | 0.0% |
| Cheatgrass | | | 0 | 40 | 40 | | | 82,214,075 | 0.0% |
| Abandoned | 41 | 735 | 962 | 2,011 | 3,749 | | | 40,667,290 | 0.0% |
| Disturbed/Facilities | 1,385 | 2,707 | 20,813 | 24,659 | 49,564 | | | 41,824,676 | 0.1% |
| Water | 1,231 | 1,942 | 49,039 | 63,546 | 115,758 | | | 31,368,419 | 0.4% |
| Recovering SS on CR | | | | | 0 | | | 344,935,542 | 0.0% |
| Riparian | | | 2,683 | 2,447 | 5,130 | | | 8,530,755 | 0.1% |
| Sand | | | | | 0 | | | 28,590,486 | 0.0% |
| Bunchgrasses | | | | | 0 | | | 1,385,293 | 0.0% |
| Hopsage/ Greasewood | | | | | 0 | | | 749,243 | 0.0% |
| Agriculture | | | | | 0 | | | 129,892 | 0.0% |
| Basalt | | | | | 0 | | | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | | | | | |
| U | 597 | 2,083 | 15,792 | 20,888 | 39,360 | 8,899,449 | 0.4% | 814,429,104 | 0.0% |
| L1OWHH | 2,061 | 3,302 | 59,322 | 73,074 | 137,759 | 34,243,755 | 0.4% | 34,602,769 | 0.4% |
| PEM1CX | | | | | 0 | | | 3,912 | 0.0% |
| POWFX | | | | | 0 | | | 134,387 | 0.0% |
| POWHX | | | 650 | 603 | 1,253 | | | 27,099 | 4.6% |
| POWFH | | | | | 0 | 55,455 | 0.0% | 57,092 | 0.0% |
| PEM1C | | | | | 0 | | | 81,960 | 0.0% |
| PEM1CH | | | | | 0 | 214,931 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | | | 0 | 66,320 | 0.0% | 101,001 | 0.0% |
| POWH | | | | | 0 | 13,541 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | | | 0 | | | 233,974 | 0.0% |
| L1UBFH | | | | | 0 | 14,920 | 0.0% | 21,351 | 0.0% |
| L2RSAH | | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | | 0 | 44,561 | 0.0% | 56,490 | 0.0% |
| L2UBFX | | | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | | 0 | 23,625 | 0.0% | 23,625 | 0.0% |
| L2USAH | | | | | 0 | 120,501 | 0.0% | 120,501 | 0.0% |
| L2USCH | | | | | 0 | 507,263 | 0.0% | 507,263 | 0.0% |
| PEM1F | | | | | 0 | | | 1,975 | 0.0% |

*Table H-29. Unrestricted Future Land-Use Alternative (full excavation) for Waste Sites Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Outfall Lines (sq m) | Trample Zone for Outfall Lines (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| PFO1A | | | | | 0 | | | 4,599 | 0.0% |
| POWF | | | | | 0 | 4,408 | 0.0% | 16,054 | 0.0% |
| POWHH | | | | | 0 | 32,985 | 0.0% | 55,151 | 0.0% |
| PSS/EM1CH | | | | | 0 | 7,705 | 0.0% | 7,711 | 0.0% |
| PSS/EM1FH | | | | | 0 | 1,562 | 0.0% | 1,563 | 0.0% |
| PUBF | | | | | 0 | | | 54,121 | 0.0% |
| Habitat (area) | | | | | | | | | |
| Riparian | 464 | 1,429 | 14,517 | 19,536 | 35,946 | 7,745,172 | 0.5% | 41,135,033 | 0.1% |
| River | 2,194 | 3,956 | 61,249 | 75,028 | 142,427 | 35,381,256 | 0.4% | 36,018,639 | 0.4% |
| Cheatgrass/ Tumblemustard | | | | | 0 | 136 | 0.0% | 121,991,909 | 0.0% |
| Sagebrush/ Sandberg's Bluegrass | | | | | 0 | | | 314,625,100 | 0.0% |
| Sagebrush/ Bitterbrush/ Sandberg's | | | | | 0 | | | 209,426,250 | 0.0% |
| Dunes | | | | | 0 | | | 72,684,375 | 0.0% |
| Sagebrush/ Bluebunch Wheatgrass | | | | | 0 | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | | 0 | | | 2,856,928 | 0.0% |
| Hopsage | | | | | 0 | | | 1,438,324 | 0.0% |
| Hopsage/ Sagebrush | | | | | 0 | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | | 0 | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | | | |
| Bald Eagle | | | | | 0 | 2 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | | 0 | | | 37 | 0.0% |
| Great Blue Heron | | | | | 0 | 2 | 0.0% | 3 | 0.0% |
| Ferruginous Hawk | | | | | 0 | | | 13 | 0.0% |
| Great Egret | | | | | 0 | | | 1 | 0.0% |
| Prairie Falcon | | | | | 0 | | | 5 | 0.0% |
| Common Loon | | | | | 0 | 1 | 0.0% | 1 | 0.0% |
| Long-Billed Curlew | | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | | 0 | 11 | 0.0% | 11 | 0.0% |
| Forster's Tern | | | | | 0 | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | | | |
| Waterfowl | 1,273 | 2,102 | 6,175 | 9,937 | 19,487 | 16,318,628 | 0.1% | 16,605,001 | 0.1% |
| Bald Eagle | | | | | 0 | 375,049 | 0.0% | 707,896 | 0.0% |

*Table H-29. Unrestricted Future Land-Use Alternative (full excavation) for Waste Sites Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Outfall Lines (sq m) | Trample Zone for Outfall Lines (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| American White Pelican | | | | | 0 | 463,000 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | | 0 | | | 20,265,341 | 0.0% |
| Hawks | | | | | | | | | |
| Active Ferr. Nests | | | | | 0 | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | | 0 | | | 1 | 0.0% |
| Swainson's Nest | | | | | 0 | 1 | 0.0% | 14 | 0.0% |
| Eagles | | | | | | | | | |
| Frequently used communal roost | | | | | 0 | 1 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | | | | 0 | 2 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | | | | | 0 | 1 | 0.0% | 42 | 0.0% |
| Frequently used ground perches | | | | | 0 | 54 | 0.0% | 60 | 0.0% |
| Infrequently used ground perches | | | | | 0 | 35 | 0.0% | 48 | 0.0% |
| Shrike | | | | | | | | | |
| Number | | | | | 0 | | | 244 | 0.0% |
| Refuge (area) | | | | | | | | | |
| Saddle Mountain/ Wahluke | | | | | 0 | 224 | 0.0% | 1,907,126 | 0.0% |
| Elk | | | | | | | | | |
| Area | | | | | 0 | | | 3,483 | 0.0% |
| Archaeological Site | | | | | | | | | |
| Point data | | 1 | | | 1 | 33 | 3.0% | 462 | 0.2% |
| Area data | | | | | 0 | 44,856 | 0.0% | 2,233,952 | 0.0% |
| Linear data | | | | | 0 | | | 100,479 | 0.0% |

*Table H-30. Restricted Future Land-Use Alternative (capping) for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Outfall Capping (sq m) | Trample Zone for Outfall Capping (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | |
| Qa | 8,593 | 18,287 | 26,880 | 13,066,224 | 0.2% | 35,229,739 | 0.1% |
| Qds | | | 0 | 491,578 | 0.0% | 395,583,359 | 0.0% |
| Qfg(3-4u) | 2,925 | 9,926 | 12,851 | 548,724 | 2.3% | 283,845,156 | 0.0% |
| WTR | 574 | 939 | 1,513 | 28,163,721 | 0.0% | 28,185,411 | 0.0% |
| MVI(sp) | | | 0 | | | 7,296,136 | 0.0% |
| Qda | | | 0 | 441,550 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | 0 | | | 346,964 | 0.0% |
| MV(sem) | | | 0 | | | 8,635,453 | 0.0% |
| QLS | | | 0 | 581,416 | 0.0% | 1,431,924 | 0.0% |
| QD | | | 0 | 1,265 | 0.0% | 1,264 | 0.0% |
| MV(WFS) | | | 0 | | | 1,057,772 | 0.0% |
| MV(gn2) | | | 0 | | | 1,232,366 | 0.0% |
| QL | | | 0 | | | 5,689,564 | 0.0% |
| Qaf | | | 0 | | | 60,989 | 0.0% |
| Qfs | | | 0 | | | 542 | 0.0% |
| Qfs3 | | | 0 | | | 49,579,275 | 0.0% |
| Qfg | | | 0 | 339,148 | 0.0% | 1,420,756 | 0.0% |
| Qfg(3) | | | 0 | | | 5,383,077 | 0.0% |
| Qfg(1) | | | 0 | | | 275,460 | 0.0% |
| Qplg | | | 0 | | | 4,536,379 | 0.0% |
| PLMc | | | 0 | 91,972 | 0.0% | 227,268 | 0.0% |
| PLMcg | | | 0 | 157,931 | 0.0% | 157,924 | 0.0% |
| MVse | | | 0 | | | 657,418 | 0.0% |
| MVsa | | | 0 | | | 115,418 | 0.0% |
| MVsu | | | 0 | | | 1,685,630 | 0.0% |
| MVwpr | | | 0 | | | 683,570 | 0.0% |
| MVwr | | | 0 | | | 427,399 | 0.0% |
| MC | | | 0 | | | 409,989 | 0.0% |
| QFS(3-4u) | | | 0 | 367,446 | 0.0% | 722,253 | 0.0% |
| Soils (area) | | | | | | | |
| Rupert Sand/Quincy Sand | | | 0 | 1,186,117 | 0.0% | 363,240,560 | 0.0% |
| Burbank Loamy Sand | | | 0 | 86,813 | 0.0% | 214,108,292 | 0.0% |
| Ephrata Sandy Loam | 1,009 | 2,184 | 3,193 | 176,951 | 1.8% | 98,218,531 | 0.0% |
| Ephrata Stony Loam | 9,964 | 20,582 | 30,546 | 859,359 | 3.6% | 19,465,389 | 0.2% |
| Pasco Silt Loam | | | 0 | 39,602 | 0.0% | 1,779,706 | 0.0% |
| Riverwash | 443 | 1,788 | 2,231 | 1,962,698 | 0.1% | 4,858,130 | 0.0% |
| Kiona Silt Loam | | | 0 | | | 18,513,547 | 0.0% |
| Dune Sand | | | 0 | 2,917 | 0.0% | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | 0 | | | 8,719,415 | 0.0% |
| Hezel Sand | | | 0 | | | 25,989,076 | 0.0% |
| Koehler Sand | | | 0 | | | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | 0 | | | 4,534,034 | 0.0% |

*Table H-30. Restricted Future Land-Use Alternative (capping) for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Outfall Capping (sq m) | Trample Zone for Outfall Capping (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Warden Silt Loam | | | 0 | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | | | |
| Shrub Steppe on slopes | | | 0 | | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 953 | 2,515 | 3,468 | | | 257,145,256 | 0.0% |
| Cheatgrass | 1,529 | 3,294 | 4,823 | | | 82,214,075 | 0.0% |
| Abandoned | 443 | 1,616 | 2,059 | | | 40,667,290 | 0.0% |
| Disturbed/Facilities | 9,164 | 19,244 | 28,408 | | | 41,824,676 | 0.1% |
| Water | | | 0 | | | 31,368,419 | 0.0% |
| Recovering SS on CR | | | 0 | | | 344,935,542 | 0.0% |
| Riparian | | | 0 | | | 8,530,755 | 0.0% |
| Sand | | | 0 | | | 28,590,486 | 0.0% |
| Bunchgrasses | | | 0 | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | 0 | | | 749,243 | 0.0% |
| Agriculture | | | 0 | | | 129,892 | 0.0% |
| Basalt | | | 0 | | | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | | | |
| U | 11,043 | 25,196 | 36,239 | 8,899,449 | 0.4% | 814,429,104 | 0.0% |
| L1OWHH | 425 | 777 | 1,202 | 34,243,755 | 0.0% | 34,602,769 | 0.0% |
| PEM1CX | | | 0 | | | 3,912 | 0.0% |
| POWFX | | | 0 | | | 134,387 | 0.0% |
| POWHX | 620 | 697 | 1,317 | | | 27,099 | 4.9% |
| POWFH | | | 0 | 55,455 | 0.0% | 57,092 | 0.0% |
| PEM1C | | | 0 | | | 81,960 | 0.0% |
| PEM1CH | | | 0 | 214,931 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | 0 | 66,320 | 0.0% | 101,001 | 0.0% |
| POWH | | | 0 | 13,541 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | 0 | | | 233,974 | 0.0% |
| L1UBFH | | | 0 | 14,920 | 0.0% | 21,351 | 0.0% |
| L2RSAH | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | 0 | 44,561 | 0.0% | 56,490 | 0.0% |
| L2UBFX | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | 0 | 23,625 | 0.0% | 23,625 | 0.0% |
| L2USAH | | | 0 | 120,501 | 0.0% | 120,501 | 0.0% |
| L2USCH | | | 0 | 507,263 | 0.0% | 507,263 | 0.0% |
| PEM1F | | | 0 | | | 1,975 | 0.0% |
| PFO1A | | | 0 | | | 4,599 | 0.0% |
| POWF | | | 0 | 4,408 | 0.0% | 16,054 | 0.0% |
| POWHH | | | 0 | 32,985 | 0.0% | 55,151 | 0.0% |
| PSS/EM1CH | | | 0 | 7,705 | 0.0% | 7,711 | 0.0% |
| PSS/EM1FH | | | 0 | 1,562 | 0.0% | 1,563 | 0.0% |
| PUBF | | | 0 | | | 54,121 | 0.0% |

*Table H-30. Restricted Future Land-Use Alternative (capping) for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Outfall Capping (sq m) | Trample Zone for Outfall Capping (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Habitat (area) | | | | | | | |
| Riparian | 12,071 | 26,519 | 38,590 | 7,745,172 | 0.5% | 41,135,033 | 0.1% |
| River | 19 | 149 | 168 | 35,381,256 | 0.0% | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | | | 0 | 136 | 0.0% | 121,991,909 | 0.0% |
| Sagebrush/Sandberg's Bluegrass | | | 0 | | | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | | | 0 | | | 209,426,250 | 0.0% |
| Dunes | | | 0 | | | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | 0 | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | 0 | | | 2,856,928 | 0.0% |
| Hopsage | | | 0 | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | 0 | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | 0 | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | |
| Bald Eagle | | | 0 | 2 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | 0 | | | 37 | 0.0% |
| Great Blue Heron | | | 0 | 2 | 0.0% | 3 | 0.0% |
| Ferruginous Hawk | | | 0 | | | 13 | 0.0% |
| Great Egret | | | 0 | | | 1 | 0.0% |
| Prairie Falcon | | | 0 | | | 5 | 0.0% |
| Common Loon | | | 0 | 1 | 0.0% | 1 | 0.0% |
| Long-Billed Curlew | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | 0 | 11 | 0.0% | 11 | 0.0% |
| Forster's Tern | | | 0 | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | |
| Waterfowl | 315 | 610 | 925 | 16,318,628 | 0.0% | 16,605,001 | 0.0% |
| Bald Eagle | | | 0 | 375,049 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | | 0 | 463,000 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | 0 | | | 20,265,341 | 0.0% |
| Hawks | | | | | | | |
| Active Ferr. Nests | | | 0 | | | 10 | 0.0% |
| Historic Ferr. Nests | | | 0 | | | 1 | 0.0% |
| Swainson's Nest | | | 0 | 1 | 0.0% | 14 | 0.0% |
| Eagles | | | | | | | |
| Frequently used communal roost | | | 0 | 1 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | | 0 | 2 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | | 1 | 1 | 1 | 100.0% | 42 | 2.4% |
| Frequently used ground perches | | | 0 | 54 | 0.0% | 60 | 0.0% |
| Infrequently used ground perches | | | 0 | 35 | 0.0% | 48 | 0.0% |
| Shrike | | | | | | | |

*Table H-30. Restricted Future Land-Use Alternative (capping) for the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Outfall Capping (sq m) | Trample Zone for Outfall Capping (sq m) | Total Impact Area (sq m) | CR Total Area (sq m) | Impact/ CR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Number | | | 0 | | | 244 | 0.0% |
| Refuge (area) | | | | | | | |
| McNary National Wildlife | | | 0 | 224 | 0.0% | 1,907,126 | 0.0% |
| Elk | | | | | | | |
| Area | | | 0 | | | 3,483 | 0.0% |
| Archaeological Site | | | | | | | |
| Point data | | | 0 | 33 | 0.0% | 462 | 0.0% |
| Area data | | | 0 | 44,856 | 0.0% | 2,233,952 | 0.0% |
| Linear data | | | 0 | | | 100,479 | 0.0% |

*Table H-31. Unrestricted Future Land-Use Alternative (full excavation) for Trench Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Trench (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|
| **Geological Formation (area)** | | | | |
| Qa | 1,168,181 | 1,168,181 | 35,229,739 | 3.32% |
| Qds | 157,877 | 157,877 | 395,583,359 | 0.04% |
| Qfg(3-4u) | 240,562 | 240,562 | 283,845,156 | 0.08% |
| WTR | 23,374 | 23,374 | 28,185,411 | 0.08% |
| MVl(sp) | | 0 | 7,296,136 | 0.00% |
| Qda | | 0 | 16,259,644 | 0.00% |
| Qfs4 | | 0 | 346,964 | 0.00% |
| MV(sem) | | 0 | 8,635,453 | 0.00% |
| QLS | | 0 | 1,431,924 | 0.00% |
| QD | | 0 | 1,264 | 0.00% |
| MV(WFS) | | 0 | 1,057,772 | 0.00% |
| MV(gn2) | | 0 | 1,232,366 | 0.00% |
| QL | | 0 | 5,689,564 | 0.00% |
| Qaf | | 0 | 60,989 | 0.00% |
| Qfs | | 0 | 542 | 0.00% |
| Qfs3 | | 0 | 49,579,275 | 0.00% |
| Qfg | | 0 | 1,420,756 | 0.00% |
| Qfg(3) | | 0 | 5,383,077 | 0.00% |
| Qfg(1) | | 0 | 275,460 | 0.00% |
| Qplg | | 0 | 4,536,379 | 0.00% |
| PLMc | | 0 | 227,268 | 0.00% |
| PLMcg | | 0 | 157,924 | 0.00% |
| MVse | | 0 | 657,418 | 0.00% |
| MVsa | | 0 | 115,418 | 0.00% |
| MVsu | | 0 | 1,685,630 | 0.00% |
| MVwpr | | 0 | 683,570 | 0.00% |
| MVwr | | 0 | 427,399 | 0.00% |
| MC | | 0 | 409,989 | 0.00% |
| QFS(3-4u) | | 0 | 722,253 | 0.00% |
| **Soils (area)** | | | | |
| Rupert Sand/Quincy Sand | 327,743 | 327,743 | 363,240,560 | 0.09% |
| Burbank Loamy Sand | 215,407 | 215,407 | 214,108,292 | 0.10% |
| Ephrata Sandy Loam | 91,541 | 91,541 | 98,218,531 | 0.09% |
| Ephrata Stony Loam | 596,048 | 596,048 | 19,465,389 | 3.06% |
| Pasco Silt Loam | | 0 | 1,779,706 | 0.00% |
| Riverwash | 221,116 | 221,116 | 4,858,130 | 4.55% |
| Kiona Silt Loam | | 0 | 18,513,547 | 0.00% |
| Dune Sand | | 0 | 21,880,836 | 0.00% |

*Table H-31. Unrestricted Future Land-Use Alternative (full excavation) for Trench Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Trench (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|
| Esquatzel Silt Loam | | 0 | 8,719,415 | 0.00% |
| Hezel Sand | | 0 | 25,989,076 | 0.00% |
| Koehler Sand | | 0 | 2,180,754 | 0.00% |
| Ritzville Silt Loam | | 0 | 4,534,034 | 0.00% |
| Warden Silt Loam | | 0 | 15,743,723 | 0.00% |
| **Vegetation (area)** | | | | |
| Shrub Steppe on slopes | | 0 | 2,767,252 | 0.00% |
| Shrub Steppe on CR Plain | 364,248 | 364,248 | 257,145,256 | 0.14% |
| Cheatgrass | 426,357 | 426,357 | 82,214,075 | 0.52% |
| Abandoned | 156,444 | 156,444 | 40,667,290 | 0.38% |
| Disturbed/Facilities | 467,513 | 467,513 | 41,824,676 | 1.12% |
| Water | 43,200 | 43,200 | 31,368,419 | 0.14% |
| Recovering SS on CR | | 0 | 344,935,542 | 0.00% |
| Riparian | 113,068 | 113,068 | 8,530,755 | 1.33% |
| Sand | 19,165 | 19,165 | 28,590,486 | 0.07% |
| Bunchgrasses | | 0 | 1,385,293 | 0.00% |
| Hopsage/Greasewood | | 0 | 749,243 | 0.00% |
| Agriculture | | 0 | 129,892 | 0.00% |
| Basalt | | 0 | 8,522,582 | 0.00% |
| **Wetlands (area)** | | | | |
| U | 1,497,180 | 1,497,180 | 814,429,104 | 0.18% |
| L1OWHH | 56,748 | 56,748 | 34,602,769 | 0.16% |
| PEM1CX | | 0 | 3,912 | 0.00% |
| POWFX | | 0 | 134,387 | 0.00% |
| POWHX | 1,463 | 1,463 | 27,099 | 5.40% |
| POWFH | | 0 | 57,092 | 0.00% |
| PEM1C | | 0 | 81,960 | 0.00% |
| PEM1CH | 18,367 | 18,367 | 400,097 | 4.59% |
| PEMIFH | | 0 | 101,001 | 0.00% |
| POWH | 16,220 | 16,220 | 61,838 | 26.23% |
| L1OWH | | 0 | 233,974 | 0.00% |
| L1UBFH | | 0 | 21,351 | 0.00% |
| L2RSAH | | 0 | 73,873 | 0.00% |
| L2UBFH | | 0 | 56,490 | 0.00% |
| L2UBFX | | 0 | 133,861 | 0.00% |
| L2UBGH | | 0 | 20,365 | 0.00% |
| L2UBKFH | | 0 | 23,625 | 0.00% |
| L2USAH | | 0 | 120,501 | 0.00% |
| L2USCH | | 0 | 507,263 | 0.00% |

*Table H-31. Unrestricted Future Land-Use Alternative (full excavation) for Trench Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Trench (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|
| PEM1F | | 0 | 1,975 | 0.00% |
| PFO1A | | 0 | 4,599 | 0.00% |
| POWF | | 0 | 16,054 | 0.00% |
| POWHH | | 0 | 55,151 | 0.00% |
| PSS/EM1CH | | 0 | 7,711 | 0.00% |
| PSS/EM1FH | | 0 | 1,563 | 0.00% |
| PUBF | | 0 | 54,121 | 0.00% |
| **Habitat (area)** | | | | |
| Riparian | 1,530,050 | 1,530,050 | 41,135,033 | 3.72% |
| River | 58,661 | 58,661 | 36,018,639 | 0.16% |
| Cheatgrass/Tumblemustard | 1,285 | 1,285 | 121,991,909 | 0.00% |
| Sagebrush/Sandberg's Bluegrass | | 0 | 314,625,100 | 0.00% |
| Sagebrush-Bitterbrush/Sandberg's | | 0 | 209,426,250 | 0.00% |
| Dunes | | 0 | 72,684,375 | 0.00% |
| Sagebrush/Bluebunch Wheatgrass | | 0 | 20,086,650 | 0.00% |
| Bluebunch Wheatgrass | | 0 | 2,856,928 | 0.00% |
| Hopsage | | 0 | 1,438,324 | 0.00% |
| Hopsage/Sagebrush | | 0 | 29,730,820 | 0.00% |
| Thymeleaf Buckwheat | | 0 | 2,140,960 | 0.00% |
| **Heritage Data** | | | | |
| Bald Eagle | 2 | 2 | 14 | 14.29% |
| Swainson's Hawk | | 0 | 37 | 0.00% |
| Great Blue Heron | | 0 | 3 | 0.00% |
| Ferruginous Hawk | | 0 | 13 | 0.00% |
| Great Egret | | 0 | 1 | 0.00% |
| Prairie Falcon | | 0 | 5 | 0.00% |
| Common Loon | | 0 | 1 | 0.00% |
| Long-Billed Curlew | | 0 | 2 | 0.00% |
| American White Pelican | | 0 | 11 | 0.00% |
| Forster's Tern | | 0 | 1 | 0.00% |
| **Priority Habitat & Species (Area)** | | | | |
| Waterfowl | 135,270 | 135,270 | 16,605,001 | 0.81% |
| Bald Eagle | 79,085 | 79,085 | 707,896 | 11.17% |
| American White Pelican | 6,884 | 6,884 | 470,936 | 1.46% |
| Loggerhead Shrike | | 0 | 20,265,341 | 0.00% |
| **Hawks** | | | | |
| Active Ferr. Nests | | 0 | 10 | 0.00% |

*Table H-31. Unrestricted Future Land-Use Alternative (full excavation) for Trench Along the Columbia River Geographic Area. (4 sheets)*

| Resource Category | Trench (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|
| Historic Ferr. Nests | | 0 | 1 | 0.00% |
| Swainson's Nest | | 0 | 14 | 0.00% |
| **Eagles** | | | | |
| Frequently used communal roost | | 0 | 3 | 0.00% |
| Frequently used perch trees | 2 | 2 | 8 | 25.00% |
| Infrequently used roost/perches | 2 | 2 | 42 | 4.76% |
| Frequently used ground perches | 2 | 2 | 60 | 3.33% |
| Infrequently used ground perches | 3 | 3 | 48 | 6.25% |
| **Shrike** | | | | |
| Number | | 0 | 244 | 0.00% |
| **Refuge (area)** | | | | |
| Saddle Mountain/Wahluke | | 0 | 1,907,126 | 0.00% |
| **Elk** | | | | |
| Area | | 0 | 3,483 | 0.00% |
| **Archaeological Site** | | | | |
| Point data | 13 | 13 | 462 | 2.81% |
| Area data | 21,598 | 21,598 | 2,233,952 | 0.97% |
| Linear data | 66 | 66 | 100,479 | 0.07% |

*Table H-32. No-Action Alternative for the Reactors on the River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Geological Formation (area) | | | | | |
| Qa | 37,160 | 4,993,954 | 0.7% | 35,229,739 | 0.1% |
| Qds | 106,756 | 10,646,686 | 1.0% | 395,583,359 | 0.0% |
| Qfg(3-4u) | 720,361 | 51,569,600 | 1.4% | 283,845,156 | 0.3% |
| WTR | 8,251 | 86,153 | 9.6% | 28,185,411 | 0.0% |
| MVI(sp) | | 13,079 | 0.0% | 7,296,136 | 0.0% |
| Qda | | 234,576 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | 247,347 | 0.0% | 346,964 | 0.0% |
| MV(sem) | | 53,938 | 0.0% | 8,635,453 | 0.0% |
| QLS | | | | 1,431,924 | 0.0% |
| QD | | | | 1,264 | 0.0% |
| MV(WFS) | | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | 1,232,366 | 0.0% |
| QL | | | | 5,689,564 | 0.0% |
| Qaf | | | | 60,989 | 0.0% |
| Qfs | | | | 542 | 0.0% |
| Qfs3 | | | | 49,579,275 | 0.0% |
| Qfg | | | | 1,420,756 | 0.0% |
| Qfg(3) | | | | 5,383,077 | 0.0% |
| Qfg(1) | | | | 275,460 | 0.0% |
| Qplg | | | | 4,536,379 | 0.0% |
| PLMc | | | | 227,268 | 0.0% |
| PLMcg | | | | 157,924 | 0.0% |
| MVse | | | | 657,418 | 0.0% |
| MVsa | | | | 115,418 | 0.0% |
| MVsu | | | | 1,685,630 | 0.0% |
| MVwpr | | | | 683,570 | 0.0% |
| MVwr | | | | 427,399 | 0.0% |
| MC | | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | 722,253 | 0.0% |
| Soils (area) | | | | | |
| Rupert Sand/Quincy Sand | 167,012 | 13,651,966 | 1.2% | 363,240,560 | 0.0% |
| Burbank Loamy Sand | 152,351 | 22,563,234 | 0.7% | 214,108,292 | 0.1% |
| Ephrata Sandy Loam | 215,234 | 15,448,088 | 1.4% | 98,218,531 | 0.2% |
| Ephrata Stony Loam | 297,145 | 15,235,439 | 2.0% | 19,465,389 | 1.5% |
| Pasco Silt Loam | 1,503 | 754,935 | 0.2% | 1,779,706 | 0.1% |
| Riverwash | 31,244 | 1,623,551 | 1.9% | 4,858,130 | 0.6% |
| Kiona Silt Loam | | 348,503 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | | | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | | 8,719,415 | 0.0% |
| Hezel Sand | | | | 25,989,076 | 0.0% |
| Koehler Sand | | | | 2,180,754 | 0.0% |

*Table H-32. No-Action Alternative for the Reactors on the River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Ritzville Silt Loam | | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | |
| Shrub Steppe on slopes | | 0 | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 30,000 | 20,864,025 | 0.1% | 257,145,256 | 0.0% |
| Cheatgrass | 10,292 | 13,547,230 | 0.1% | 82,214,075 | 0.0% |
| Abandoned | 20,223 | 16,999,201 | 0.1% | 40,667,290 | 0.0% |
| Disturbed/Facilities | 810,153 | 11,042,645 | 7.3% | 41,824,676 | 1.9% |
| Water | 1,863 | 250,786 | 0.7% | 31,368,419 | 0.0% |
| Recovering SS on CR | | 4,285,454 | 0.0% | 344,935,542 | 0.0% |
| Riparian | | 502,496 | 0.0% | 8,530,755 | 0.0% |
| Sand | | 353,495 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | 749,243 | 0.0% |
| Agriculture | | | | 129,892 | 0.0% |
| Basalt | | | | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | |
| U | 861,992 | 67,618,511 | 1.3% | 814,429,104 | 0.1% |
| L1OWHH | 4,361 | 81,601 | 5.3% | 34,602,769 | 0.0% |
| PEM1CX | 3,912 | 3,912 | 100.0% | 3,912 | 100.0% |
| POWFX | 617 | 22,020 | 2.8% | 134,387 | 0.5% |
| POWHX | 1,647 | 20,196 | 8.2% | 27,099 | 6.1% |
| POWFH | | 1,663 | 0.0% | 57,092 | 0.0% |
| PEM1C | | 22,310 | 0.0% | 81,960 | 0.0% |
| PEM1CH | | 55,572 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | 3,327 | 0.0% | 101,001 | 0.0% |
| POWH | | 16,220 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | | 233,974 | 0.0% |
| L1UBFH | | | | 21,351 | 0.0% |
| L2RSAH | | | | 73,873 | 0.0% |
| L2UBFH | | | | 56,490 | 0.0% |
| L2UBFX | | | | 133,861 | 0.0% |
| L2UBGH | | | | 20,365 | 0.0% |
| L2UBKFH | | | | 23,625 | 0.0% |
| L2USAH | | | | 120,501 | 0.0% |
| L2USCH | | | | 507,263 | 0.0% |
| PEM1F | | | | 1,975 | 0.0% |
| PFO1A | | | | 4,599 | 0.0% |
| POWF | | | | 16,054 | 0.0% |
| POWHH | | | | 55,151 | 0.0% |
| PSS/EM1CH | | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | 1,563 | 0.0% |

*Table H-32. No-Action Alternative for the Reactors on the River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| PUBF | | | | 54,121 | 0.0% |
| Habitat (area) | | | | | |
| Riparian | 379,187 | 9,757,126 | 3.9% | 41,135,033 | 0.9% |
| River | 5,711 | 186,624 | 3.1% | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | 400,175 | 43,758,990 | 0.9% | 121,991,909 | 0.3% |
| Sagebrush/Sandberg's Bluegrass | 87,456 | 7,946,441 | 1.1% | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | | 5,039,439 | 0.0% | 209,426,250 | 0.0% |
| Dunes | | 1,157,205 | 0.0% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | 2,856,928 | 0.0% |
| Hopsage | | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | |
| Bald Eagle | | 5 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | 6 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | 3 | 0.0% |
| Ferruginous Hawk | | | | 13 | 0.0% |
| Great Egret | | | | 1 | 0.0% |
| Prairie Falcon | | | | 5 | 0.0% |
| Common Loon | | | | 1 | 0.0% |
| Long-Billed Curlew | | | | 2 | 0.0% |
| American White Pelican | | | | 11 | 0.0% |
| Forster's Tern | | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | |
| Waterfowl | 128 | 222,786 | 0.1% | 16,605,001 | 0.0% |
| Bald Eagle | | 257,513 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | 6,264 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | 20,265,341 | 0.0% |
| Hawks | | | | | |
| Active Ferr. Nests | | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | 1 | 0.0% |
| Swainson's Nest | | 3 | 0.0% | 14 | 0.0% |
| Eagles | | | | | |
| Frequently used communal roost | | 2 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | 5 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | | 19 | 0.0% | 42 | 0.0% |
| Frequently used ground perches | | 6 | 0.0% | 60 | 0.0% |
| Infrequently used ground perches | 1 | 6 | 16.7% | 48 | 2.1% |

*Table H-32. No-Action Alternative for the Reactors on the River Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Shrike | | | | | |
| Number | | 10 | 0.0% | 244 | 0.0% |
| Refuge (area) | | | | | |
| McNary National Wildlife | | | | 1,907,126 | 0.0% |
| Elk | | | | | |
| Area | | | | 3,483 | 0.0% |
| Archaeological Site | | | | | |
| Point data | 1 | 92 | 1.1% | 462 | 0.2% |
| Area data | 2,896 | 204,669 | 1.4% | 2,233,952 | 0.1% |
| Linear data | 62 | 21,423 | 0.3% | 100,479 | 0.1% |

*Table II-33. Unrestricted Use Alternative (full excavation) for the Reactors on the River (RR) Geographic Area (6 pages).*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | | | | | |
| Qa | 74,383 | 81,452 | 18,912 | 18,978 | | 11,621 | 205,346 | 4,993,954 | 4.1% | 35,229,739 | 0.6% |
| Qds | 180,307 | 125,740 | 48,859 | 34,678 | 1,783 | 63,897 | 455,264 | 10,646,686 | 4.3% | 395,583,359 | 0.1% |
| Qfg(3-4u) | 1,198,039 | 706,307 | 428,275 | 188,768 | 519,446 | 463,188 | 3,504,023 | 51,569,600 | 6.8% | 283,845,156 | 1.2% |
| WTR | 10,918 | 9,352 | 2,970 | 5,994 | | | 29,234 | 86,153 | 33.9% | 28,185,411 | 0.1% |
| MVl(sp) | | | | | | | 0 | 13,079 | 0.0% | 7,296,136 | 0.0% |
| Qda | | | | | | | 0 | 234,576 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | | | 3,859 | 3,859 | 247,347 | 1.6% | 346,964 | 1.1% |
| MV(sem) | | | | | | | 0 | 53,938 | 0.0% | 8,635,453 | 0.0% |
| QLS | | | | | | | 0 | | | 1,431,924 | 0.0% |
| QD | | | | | | | 0 | | | 1,264 | 0.0% |
| MV(WFS) | | | | | | | 0 | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | | | | 0 | | | 1,232,366 | 0.0% |
| QL | | | | | | | 0 | | | 5,689,564 | 0.0% |
| Qaf | | | | | | | 0 | | | 60,989 | 0.0% |
| Qfs | | | | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | | | | | | 0 | | | 49,579,275 | 0.0% |
| Qfg | | | | | | | 0 | | | 1,420,756 | 0.0% |
| Qfg(3) | | | | | | | 0 | | | 5,383,077 | 0.0% |
| Qfg(1) | | | | | | | 0 | | | 275,460 | 0.0% |
| Qplg | | | | | | | 0 | | | 4,536,379 | 0.0% |
| PLMc | | | | | | | 0 | | | 227,268 | 0.0% |
| PLMcg | | | | | | | 0 | | | 157,924 | 0.0% |
| MVse | | | | | | | 0 | | | 657,418 | 0.0% |
| MVsa | | | | | | | 0 | | | 115,418 | 0.0% |
| MVsu | | | | | | | 0 | | | 1,685,630 | 0.0% |
| MVwpr | | | | | | | 0 | | | 683,570 | 0.0% |
| MVwr | | | | | | | 0 | | | 427,399 | 0.0% |
| MC | | | | | | | 0 | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | | | | 0 | | | 722,253 | 0.0% |

*Table H-33. Unrestricted Use Alternative (full excavation) for the Reactors on the River (RR) Geographic Area (6 pages).*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Soils (area) | | | | | | | | | | | |
| Rupert Sand/Quincy Sand | 264,525 | 141,141 | 123,602 | 40,989 | 61,012 | 56,032 | 687,301 | 13,651,966 | 5.0% | 363,240,560 | 0.2% |
| Burbank Loamy Sand | 253,041 | 196,524 | 68,657 | 35,049 | 109,596 | 166,442 | 829,309 | 22,563,234 | 3.7% | 214,108,292 | 0.4% |
| Ephrata Sandy Loam | 308,584 | 183,406 | 59,996 | 26,592 | 157,349 | 150,207 | 886,134 | 15,448,088 | 5.7% | 98,218,531 | 0.9% |
| Ephrata Stony Loam | 575,824 | 362,846 | 232,014 | 126,665 | 193,248 | 165,615 | 1,656,212 | 15,235,439 | 10.9% | 19,465,389 | 8.5% |
| Pasco Silt Loam | 2,711 | 5,410 | | | | | 8,121 | 754,935 | 1.1% | 1,779,706 | 0.5% |
| Riverwash | 46,782 | 25,051 | 11,738 | | | 3,003 | 86,574 | 1,623,551 | 5.3% | 4,858,130 | 1.8% |
| Kiona Silt Loam | | | | | | | 0 | 348,503 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | | | | | | 0 | | | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | | | | | 0 | | | 8,719,415 | 0.0% |
| Hezel Sand | | | | | | | 0 | | | 25,989,076 | 0.0% |
| Koehler Sand | | | | | | | 0 | | | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | | | | 0 | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | | | | 0 | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | | | | | | | |
| Shrub Steppe on slopes | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 46,093 | 44,699 | 42,268 | 13,526 | 138,442 | 99,490 | 384,518 | 20,864,025 | 1.8% | 257,145,256 | 0.1% |
| Cheatgrass | 35,858 | 49,097 | 4,246 | 5,602 | 15,739 | 137,888 | 248,430 | 13,547,230 | 1.8% | 82,214,075 | 0.3% |
| Abandoned | 45,184 | 58,881 | 60,228 | 15,369 | 52,614 | 182,938 | 415,214 | 16,999,201 | 2.4% | 40,667,290 | 1.0% |
| Disturbed/Facilities | 1,330,830 | 760,837 | 388,713 | 177,552 | 161,413 | 108,902 | 2,928,247 | 11,042,645 | 26.5% | 41,824,676 | 7.0% |
| Water | 5,682 | 9,333 | 3,552 | 6,361 | | 993 | 25,921 | 250,786 | 10.3% | 31,368,419 | 0.1% |
| Recovering SS on CR | | | | | 11,378 | 12,362 | 23,740 | 4,285,454 | 0.6% | 344,935,542 | 0.0% |
| Riparian | | | | | | | 0 | 502,496 | 0.0% | 8,530,755 | 0.0% |
| Sand | | | | | | | 0 | 353,495 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | | | | 0 | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | | | | 0 | | | 749,243 | 0.0% |
| Agriculture | | | | | | | 0 | | | 129,892 | 0.0% |
| Basalt | | | | | | | 0 | | | 8,522,582 | 0.0% |





9613470.0910

*Table II-33. Unrestricted Use Alternative (full excavation) for the Reactors on the River (RR) Geographic Area (6 pages).*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Wetlands (area) | | | | | | | | | | | |
| U | 1,446,925 | 907,720 | 493,091 | 238,403 | 521,229 | 542,004 | 4,149,372 | 67,618,511 | 6.1% | 814,429,104 | 0.5% |
| L1OWHH | 9,152 | 14,225 | 5,395 | 8,987 | | | 37,759 | 81,601 | 46.3% | 34,602,769 | 0.1% |
| PEM1CX | 3,912 | | | | | | 3,912 | 3,912 | 100.0% | 3,912 | 100.0% |
| POWFX | 1,536 | 342 | | | | 569 | 2,447 | 22,020 | 11.1% | 134,387 | 1.8% |
| POWHX | 2,123 | 299 | 539 | 1,049 | | | 4,010 | 20,196 | 19.9% | 27,099 | 14.8% |
| POWFH | | | | | | | 0 | 1,663 | 0.0% | 57,092 | 0.0% |
| PEM1C | | | | | | | 0 | 22,310 | 0.0% | 81,960 | 0.0% |
| PEM1CH | | | | | | | 0 | 55,572 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | | | | | 0 | 3,327 | 0.0% | 101,001 | 0.0% |
| POWH | | | | | | | 0 | 16,220 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | | | | | 0 | | | 233,974 | 0.0% |
| L1UBFH | | | | | | | 0 | | | 21,351 | 0.0% |
| L2RSAH | | | | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | | | | 0 | | | 56,490 | 0.0% |
| L2UBFX | | | | | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | | | | 0 | | | 23,625 | 0.0% |
| L2USAH | | | | | | | 0 | | | 120,501 | 0.0% |
| L2USCH | | | | | | | 0 | | | 507,263 | 0.0% |
| PEM1F | | | | | | | 0 | | | 1,975 | 0.0% |
| PFO1A | | | | | | | 0 | | | 4,599 | 0.0% |
| POWF | | | | | | | 0 | | | 16,054 | 0.0% |
| POWHH | | | | | | | 0 | | | 55,151 | 0.0% |
| PSS/EM1CH | | | | | | | 0 | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | | | | 0 | | | 1,563 | 0.0% |
| PUBF | | | | | | | 0 | | | 54,121 | 0.0% |
| Habitat (area) | | | | | | | | | | | |
| Riparian | 669,133 | 385,166 | 200,154 | 123,841 | 27,908 | 60,050 | 1,466,252 | 9,757,126 | 15.0% | 41,135,033 | 3.6% |

*Table II-33. Unrestricted Use Alternative (full excavation) for the Reactors on the River (RR) Geographic Area (6 pages).*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| River | 9,490 | 12,731 | 4,869 | 8,413 | | | 35,503 | 186,624 | 19.0% | 36,018,639 | 0.1% |
| Cheatgrass/Tumblemustard | 634,285 | 434,191 | 276,157 | 100,218 | 443,347 | 439,098 | 2,327,296 | 43,758,990 | 5.3% | 121,991,909 | 1.9% |
| Sagebrush/Sandberg's Bluegrass | | 669 | 17,851 | 15,961 | 29,930 | 8,399 | 72,810 | 7,946,441 | 0.9% | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | 150,740 | 90,144 | | | 20,029 | 25,084 | 285,997 | 5,039,439 | 5.7% | 209,426,250 | 0.1% |
| Dunes | | | | | | 9,948 | 9,948 | 1,157,205 | 0.9% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | | | | | 0 | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | | | | 0 | | | 2,856,928 | 0.0% |
| Hopsage | | | | | | | 0 | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | | | | | 0 | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | | | | 0 | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | | | | | |
| Bald Eagle | | | | | | | 0 | 5 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | | | | 0 | 6 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | | | | 0 | | | 3 | 0.0% |
| Ferruginous Hawk | | | | | | | 0 | | | 13 | 0.0% |
| Great Egret | | | | | | | 0 | | | 1 | 0.0% |
| Prairie Falcon | | | | | | | 0 | | | 5 | 0.0% |
| Common Loon | | | | | | | 0 | | | 1 | 0.0% |
| Long-Billed Curlew | | | | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | | | | 0 | | | 11 | 0.0% |
| Forster's Tern | | | | | | | 0 | | | 1 | 0.0% |

*Table II-33. Unrestricted Use Alternative (full excavation) for the Reactors on the River (RR) Geographic Area (6 pages).*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Priority Habitat & Species (Area) | | | | | | | | | | | |
| Waterfowl | 1,339 | 3,025 | | | | | 4,364 | 222,786 | 2.0% | 16,605,001 | 0.0% |
| Bald Eagle | | | | | | | 0 | 257,513 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | | | | | | 0 | 6,264 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | | | | 0 | | | 20,265,341 | 0.0% |
| Hawks | | | | | | | | | | | |
| Active Ferr. Nests | | | | | | | 0 | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | | | | 0 | | | 1 | 0.0% |
| Swainson's Nest | | | | | | 1 | 1 | 3 | 33.3% | 14 | 7.1% |
| Eagles | | | | | | | | | | | |
| Frequently used communal roost | | | | | | | 0 | 2 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | | | | | | 0 | 5 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | 1 | | | 3 | | 1 | 5 | 19 | 26.3% | 42 | 11.9% |
| Frequently used ground perches | | | | | | | 0 | 6 | 0.0% | 60 | 0.0% |
| Infrequently used ground perches | 1 | | | | | | 1 | 6 | 16.7% | 48 | 2.1% |
| Shrike | | | | | | | | | | | |
| Number | | | | | | | 0 | 10 | 0.0% | 244 | 0.0% |
| Refuge (area) | | | | | | | | | | | |
| McNary National Wildlife | | | | | | | 0 | | | 1,907,126 | 0.0% |
| Elk | | | | | | | | | | | |
| Area | | | | | | | 0 | | | 3,483 | 0.0% |

*Table II-33. Unrestricted Use Alternative (full excavation) for the Reactors on the River (RR) Geographic Area (6 pages).*

| Resource Category | Full Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Archaeological Site | | | | | | | | | | | |
| Point data | | | | | | 3 | 3 | 92 | 3.3% | 462 | 0.6% |
| Area data | 27,765 | 77 | | | 405 | 2,765 | 31,012 | 204,669 | 15.2% | 2,233,952 | 1.4% |
| Linear data | 79 | 216 | 225 | 60 | 106 | 179 | 865 | 21,423 | 4.0% | 100,479 | 0.9% |

*Table II-34. Restricted Use Alternative (R1) (partial excavation) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | | | | | |
| Qa | 60,931 | 61,814 | 18,912 | 18,978 | | 11,621 | 172,256 | 4,993,954 | 3.4% | 35,229,739 | 0.5% |
| Qds | 158,820 | 109,308 | 48,859 | 34,678 | 1,783 | 63,897 | 417,345 | 10,646,686 | 3.9% | 395,583,359 | 0.1% |
| Qfg(3-4u) | 1,077,909 | 604,837 | 428,275 | 188,768 | 519,446 | 463,188 | 3,282,423 | 51,569,600 | 6.4% | 283,845,156 | 1.2% |
| WTR | 10,918 | 9,116 | 2,970 | 5,994 | | | 28,998 | 86,153 | 33.7% | 28,185,411 | 0.1% |
| MVI(sp) | | | | | | | 0 | 13,079 | 0.0% | 7,296,136 | 0.0% |
| Qda | | | | | | | 0 | 234,576 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | | | 3,859 | 3,859 | 247,347 | 1.6% | 346,964 | 1.1% |
| MV(sem) | | | | | | | 0 | 53,938 | 0.0% | 8,635,453 | 0.0% |
| QLS | | | | | | | 0 | | | 1,431,924 | 0.0% |
| QD | | | | | | | 0 | | | 1,264 | 0.0% |
| MV(WFS) | | | | | | | 0 | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | | | | 0 | | | 1,232,366 | 0.0% |
| QL | | | | | | | 0 | | | 5,689,564 | 0.0% |
| Qaf | | | | | | | 0 | | | 60,989 | 0.0% |
| Qfs | | | | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | | | | | | 0 | | | 49,579,275 | 0.0% |
| Qfg | | | | | | | 0 | | | 1,420,756 | 0.0% |
| Qfg(3) | | | | | | | 0 | | | 5,383,077 | 0.0% |
| Qfg(1) | | | | | | | 0 | | | 275,460 | 0.0% |
| Qpig | | | | | | | 0 | | | 4,536,379 | 0.0% |
| PLMc | | | | | | | 0 | | | 227,268 | 0.0% |
| PLMcg | | | | | | | 0 | | | 157,924 | 0.0% |
| MVse | | | | | | | 0 | | | 657,418 | 0.0% |
| MVsa | | | | | | | 0 | | | 115,418 | 0.0% |
| MVsu | | | | | | | 0 | | | 1,685,630 | 0.0% |
| MVwpr | | | | | | | 0 | | | 683,570 | 0.0% |
| MVwr | | | | | | | 0 | | | 427,399 | 0.0% |
| MC | | | | | | | 0 | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | | | | 0 | | | 722,253 | 0.0% |
| Soils (area) | | | | | | | | | | | |
| Rupert Sand/Quincy Sand | 234,664 | 118,805 | 123,602 | 40,989 | 61,012 | 56,032 | 635,104 | 13,651,966 | 4.7% | 363,240,560 | 0.2% |
| Burbank Loamy Sand | 232,773 | 181,178 | 68,657 | 35,049 | 109,596 | 166,442 | 793,695 | 22,563,234 | 3.5% | 214,108,292 | 0.4% |

*Table H-34. Restricted Use Alternative (R1) (partial excavation) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ephrata Sandy Loam | 280,785 | 1,434 | 59,996 | 26,592 | 157,349 | 150,207 | 676,363 | 15,448,088 | 4.4% | 98,218,531 | 0.7% |
| Ephrata Stony Loam | 507,093 | 286,609 | 232,014 | 126,665 | 193,248 | 165,615 | 1,511,244 | 15,235,439 | 9.9% | 19,465,389 | 7.8% |
| Pasco Silt Loam | 2,711 | 5,410 | | | | | 8,121 | 754,935 | 1.1% | 1,779,706 | 0.5% |
| Riverwash | 37,902 | 18,121 | 11,738 | | | 3,003 | 70,764 | 1,623,551 | 4.4% | 4,858,130 | 1.5% |
| Kiona Silt Loam | | | | | | | 0 | 348,503 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | | | | | | 0 | | | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | | | | | 0 | | | 8,719,415 | 0.0% |
| Hezel Sand | | | | | | | 0 | | | 25,989,076 | 0.0% |
| Koehler Sand | | | | | | | 0 | | | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | | | | 0 | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | | | | 0 | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | | | | | | | |
| Shrub Steppe on slopes | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 41,955 | 35,850 | 42,268 | 13,526 | 138,442 | 99,490 | 371,531 | 20,864,025 | 1.8% | 257,145,256 | 0.1% |
| Cheatgrass | 25,128 | 32,490 | 4,246 | 5,602 | 15,739 | 137,888 | 221,093 | 13,547,230 | 1.6% | 82,214,075 | 0.3% |
| Abandoned | 38,976 | 49,451 | 60,228 | 15,369 | 52,614 | 182,938 | 399,576 | 16,999,201 | 2.4% | 40,667,290 | 1.0% |
| Disturbed/Facilities | 1,199,215 | 657,857 | 388,713 | 177,552 | 161,413 | 108,902 | 2,693,652 | 11,042,645 | 24.4% | 41,824,676 | 6.4% |
| Water | 5,682 | 9,333 | 3,552 | 6,361 | | 993 | 25,921 | 250,786 | 10.3% | 31,368,419 | 0.1% |
| Recovering SS on CR | | | | | 11,378 | 12,362 | 23,740 | 4,285,454 | 0.6% | 344,935,542 | 0.0% |
| Riparian | | | | | | | 0 | 502,496 | 0.0% | 8,530,755 | 0.0% |
| Sand | | | | | | | 0 | 353,495 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | | | | 0 | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | | | | 0 | | | 749,243 | 0.0% |
| Agriculture | | | | | | | 0 | | | 129,892 | 0.0% |
| Basalt | | | | | | | 0 | | | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | | | | | | | |
| U | 1,292,924 | 771,602 | 493,091 | 238,403 | 521,229 | 542,004 | 3,859,253 | 67,618,511 | 5.7% | 814,429,104 | 0.5% |
| L1OWHH | 8,411 | 12,276 | 5,395 | 8,987 | | | 35,069 | 81,601 | 43.0% | 34,602,769 | 0.1% |
| PEM1CX | 3,912 | | | | | | 3,912 | 3,912 | 100.0% | 3,912 | 100.0% |
| POWFX | 1,243 | 632 | | | | 569 | 2,444 | 22,020 | 11.1% | 134,387 | 1.8% |
| POWHX | 2,089 | 565 | 539 | 1,049 | | | 4,242 | 20,196 | 21.0% | 27,099 | 15.7% |
| POWFH | | | | | | | 0 | 1,663 | 0.0% | 57,092 | 0.0% |



9613970.0913

*Table II-34. Restricted Use Alternative (R1) (partial excavation) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PEM1C | | | | | | | 0 | 22,310 | 0.0% | 81,960 | 0.0% |
| PEM1CH | | | | | | | 0 | 55,572 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | | | | | 0 | 3,327 | 0.0% | 101,001 | 0.0% |
| POWH | | | | | | | 0 | 16,220 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | | | | | 0 | | | 233,974 | 0.0% |
| L1UBFH | | | | | | | 0 | | | 21,351 | 0.0% |
| L2RSAH | | | | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | | | | 0 | | | 56,490 | 0.0% |
| L2UBFX | | | | | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | | | | 0 | | | 23,625 | 0.0% |
| L2USAH | | | | | | | 0 | | | 120,501 | 0.0% |
| L2USCH | | | | | | | 0 | | | 507,263 | 0.0% |
| PEM1F | | | | | | | 0 | | | 1,975 | 0.0% |
| PFO1A | | | | | | | 0 | | | 4,599 | 0.0% |
| POWF | | | | | | | 0 | | | 16,054 | 0.0% |
| POWHH | | | | | | | 0 | | | 55,151 | 0.0% |
| PSS/EM1CH | | | | | | | 0 | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | | | | 0 | | | 1,563 | 0.0% |
| PUBF | | | | | | | 0 | | | 54,121 | 0.0% |
| Habitat (area) | | | | | | | | | | | |
| Riparian | 586,941 | 291,987 | 200,154 | 123,841 | 27,908 | 60,050 | 1,290,881 | 9,757,126 | 13.2% | 41,135,033 | 3.1% |
| River | 8,918 | 11,434 | 4,869 | 8,413 | | | 33,634 | 186,624 | 18.0% | 36,018,639 | 0.1% |
| Cheatgrass/Tumblemustard | 578,411 | 400,140 | 276,157 | 100,218 | 443,347 | 439,098 | 2,237,371 | 43,758,990 | 5.1% | 121,991,909 | 1.8% |
| Sagebrush/Sandberg's Bluegrass | | 669 | 17,851 | 15,961 | 29,930 | 8,399 | 72,810 | 7,946,441 | 0.9% | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | 134,308 | 80,846 | | | 20,029 | 25,084 | 260,267 | 5,039,439 | 5.2% | 209,426,250 | 0.1% |
| Dunes | | | | | | 9,948 | 9,948 | 1,157,205 | 0.9% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | | | | | 0 | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | | | | 0 | | | 2,856,928 | 0.0% |
| Hopsage | | | | | | | 0 | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | | | | | 0 | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | | | | 0 | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | | | | | |

*Table H-34. Restricted Use Alternative (R1) (partial excavation) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bald Eagle | | | | | | | 0 | 5 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | | | | 0 | 6 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | | | | 0 | | | 3 | 0.0% |
| Ferruginous Hawk | | | | | | | 0 | | | 13 | 0.0% |
| Great Egret | | | | | | | 0 | | | 1 | 0.0% |
| Prairie Falcon | | | | | | | 0 | | | 5 | 0.0% |
| Common Loon | | | | | | | 0 | | | 1 | 0.0% |
| Long-Billed Curlew | | | | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | | | | 0 | | | 11 | 0.0% |
| Forster's Tern | | | | | | | 0 | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | | | | | |
| Waterfowl | 1,339 | 1,985 | | | | | 3,324 | 222,786 | 1.5% | 16,605,001 | 0.0% |
| Bald Eagle | | | | | | | 0 | 257,513 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | | | | | | 0 | 6,264 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | | | | 0 | | | 20,265,341 | 0.0% |
| Hawks | | | | | | | | | | | |
| Active Ferr. Nests | | | | | | | 0 | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | | | | 0 | | | 1 | 0.0% |
| Swainson's Nest | | | | | | 1 | 1 | 3 | 33.3% | 14 | 7.1% |
| Eagles | | | | | | | | | | | |
| Frequently used communal roost | | | | | | | 0 | 2 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | | | | | | 0 | 5 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | 1 | | | 3 | | 1 | 5 | 19 | 26.3% | 42 | 11.9% |
| Frequently used ground perches | | | | | | | 0 | 6 | 0.0% | 60 | 0.0% |
| Infrequently used ground perches | 1 | | | | | | 1 | 6 | 16.7% | 48 | 2.1% |
| Shrike | | | | | | | | | | | |
| Number | | | | | | | 0 | 10 | 0.0% | 244 | 0.0% |
| Refuge (area) | | | | | | | | | | | |
| McNary National Wildlife | | | | | | | 0 | | | 1,907,126 | 0.0% |

*Table II-34. Restricted Use Alternative (R1) (partial excavation) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Elk | | | | | | | | | | | |
| Area | | | | | | | 0 | | | 3,483 | 0.0% |
| Archaeological Site | | | | | | | | | | | |
| Point data | 1 | | | | | 3 | 4 | 92 | 4.3% | 462 | 0.9% |
| Area data | 27,765 | 77 | | | 405 | 2,765 | 31,012 | 204,669 | 15.2% | 2,233,952 | 1.4% |
| Linear data | 79 | 147 | 225 | 60 | 106 | 179 | 796 | 21,423 | 3.7% | 100,479 | 0.8% |

*Table H-35. Restricted Future Land-Use Use Alternative (R2) (capping) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | | | | | |
| Qa | 67,045 | 49,484 | 10,544 | 24,115 | | 11,621 | 162,809 | 4,993,954 | 3.3% | 35,229,739 | 0.5% |
| Qds | 185,001 | 115,478 | 17,456 | 35,885 | 1,783 | 63,897 | 419,500 | 10,646,686 | 3.9% | 395,583,359 | 0.1% |
| Qfg(3-4u) | 1,121,360 | 588,252 | 261,332 | 169,502 | 519,446 | 463,188 | 3,123,080 | 51,569,600 | 6.1% | 283,845,156 | 1.1% |
| WTR | 11,897 | 4,634 | 1,194 | 1,739 | | | 19,464 | 86,153 | 22.6% | 28,185,411 | 0.1% |
| MVI(sp) | | | | | | | 0 | 13,079 | 0.0% | 7,296,136 | 0.0% |
| Qda | | | | | | | 0 | 234,576 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | | | 3,859 | 3,859 | 247,347 | 1.6% | 346,964 | 1.1% |
| MV(sem) | | | | | | | 0 | 53,938 | 0.0% | 8,635,453 | 0.0% |
| QLS | | | | | | | 0 | | | 1,431,924 | 0.0% |
| QD | | | | | | | 0 | | | 1,264 | 0.0% |
| MV(WFS) | | | | | | | 0 | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | | | | 0 | | | 1,232,366 | 0.0% |
| QL | | | | | | | 0 | | | 5,689,564 | 0.0% |
| Qaf | | | | | | | 0 | | | 60,989 | 0.0% |
| Qfs | | | | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | | | | | | 0 | | | 49,579,275 | 0.0% |
| Qfg | | | | | | | 0 | | | 1,420,756 | 0.0% |
| Qfg(3) | | | | | | | 0 | | | 5,383,077 | 0.0% |
| Qfg(1) | | | | | | | 0 | | | 275,460 | 0.0% |
| Qplg | | | | | | | 0 | | | 4,536,379 | 0.0% |
| PLMc | | | | | | | 0 | | | 227,268 | 0.0% |
| PLMcg | | | | | | | 0 | | | 157,924 | 0.0% |
| MVse | | | | | | | 0 | | | 657,418 | 0.0% |
| MVsa | | | | | | | 0 | | | 115,418 | 0.0% |
| MVsu | | | | | | | 0 | | | 1,685,630 | 0.0% |
| MVwpr | | | | | | | 0 | | | 683,570 | 0.0% |
| MVwr | | | | | | | 0 | | | 427,399 | 0.0% |
| MC | | | | | | | 0 | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | | | | 0 | | | 722,253 | 0.0% |

*Table II-35. Restricted Future Land-Use Use Alternative (R2) (capping) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Soils (area) | | | | | | | | | | | |
| Rupert Sand/Quincy Sand | 247,922 | 116,865 | 11,392 | 44,600 | 61,012 | 56,032 | 537,823 | 13,651,966 | 3.9% | 363,240,560 | 0.1% |
| Burbank Loamy Sand | 277,584 | 189,313 | 55,129 | 29,303 | 109,596 | 166,442 | 827,367 | 22,563,234 | 3.7% | 214,108,292 | 0.4% |
| Ephrata Sandy Loam | 323,483 | 160,276 | 3,344 | 39,640 | 157,349 | 150,207 | 834,299 | 15,448,088 | 5.4% | 98,218,531 | 0.8% |
| Ephrata Stony Loam | 477,757 | 264,333 | 206,710 | 104,415 | 193,248 | 165,615 | 1,412,078 | 15,235,439 | 9.3% | 19,465,389 | 7.3% |
| Pasco Silt Loam | 5,417 | 7,071 | | | | | 12,488 | 754,935 | 1.7% | 1,779,706 | 0.7% |
| Riverwash | 42,007 | 13,582 | 12,840 | 11,765 | | 3,003 | 83,197 | 1,623,551 | 5.1% | 4,858,130 | 1.7% |
| Kiona Silt Loam | | | | | | | 0 | 348,503 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | | | | | | 0 | | | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | | | | | 0 | | | 8,719,415 | 0.0% |
| Hezel Sand | | | | | | | 0 | | | 25,989,076 | 0.0% |
| Koehler Sand | | | | | | | 0 | | | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | | | | 0 | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | | | | 0 | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | | | | | | | |
| Shrub Steppe on slopes | 0 | 0 | | | 0 | 0 | 0 | 0 | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 53,555 | 41,965 | 42,174 | 5,099 | 138,442 | 99,490 | 380,725 | 20,864,025 | 1.8% | 257,145,256 | 0.1% |
| Cheatgrass | 28,274 | 33,761 | 2,043 | 2,043 | 15,739 | 137,888 | 219,748 | 13,547,230 | 1.6% | 82,214,075 | 0.3% |
| Abandoned | 49,024 | 51,962 | 700 | 21,188 | 52,614 | 182,938 | 358,426 | 16,999,201 | 2.1% | 40,667,290 | 0.9% |
| Disturbed/Facilities | 1,249,079 | 624,534 | 244,157 | 200,958 | 161,413 | 108,902 | 2,589,043 | 11,042,645 | 23.4% | 41,824,676 | 6.2% |
| Water | 5,369 | 5,627 | 1,450 | 1,947 | | 993 | 15,386 | 250,786 | 6.1% | 31,368,419 | 0.0% |
| Recovering SS on CR | | | | | 11,378 | 12,362 | 23,740 | 4,285,454 | 0.6% | 344,935,542 | 0.0% |
| Riparian | | | | | | | 0 | 502,496 | 0.0% | 8,530,755 | 0.0% |
| Sand | | | | | | | 0 | 353,495 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | | | | 0 | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | | | | 0 | | | 749,243 | 0.0% |
| Agriculture | | | | | | | 0 | | | 129,892 | 0.0% |
| Basalt | | | | | | | 0 | | | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | | | | | | | |

*Table H-35. Restricted Future Land-Use Use Alternative (R2) (capping) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| U | 1,368,599 | 747,900 | 288,085 | 222,630 | 521,229 | 542,004 | 3,690,447 | 67,618,511 | 5.5% | 814,429,104 | 0.5% |
| L1OWHH | 9,149 | 8,985 | 2,285 | 2,881 | | | 23,300 | 81,601 | 28.6% | 34,602,769 | 0.1% |
| PEM1CX | 3,912 | | | | | | 3,912 | 3,912 | 100.0% | 3,912 | 100.0% |
| POWFX | 1,430 | 448 | | | | 569 | 2,447 | 22,020 | 11.1% | 134,387 | 1.8% |
| POWHX | 2,211 | 517 | 165 | 1,229 | | | 4,122 | 20,196 | 20.4% | 27,099 | 15.2% |
| POWFH | | | | | | | 0 | 1,663 | 0.0% | 57,092 | 0.0% |
| PEM1C | | | | | | | 0 | 22,310 | 0.0% | 81,960 | 0.0% |
| PEM1CH | | | | | | | 0 | 55,572 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | | | | | 0 | 3,327 | 0.0% | 101,001 | 0.0% |
| POWH | | | | | | | 0 | 16,220 | 0.0% | 61,838 | 0.0% |
| L1OWH | | | | | | | 0 | | | 233,974 | 0.0% |
| L1UBFH | | | | | | | 0 | | | 21,351 | 0.0% |
| L2RSAH | | | | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | | | | 0 | | | 56,490 | 0.0% |
| L2UBFX | | | | | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | | | | 0 | | | 23,625 | 0.0% |
| L2USAH | | | | | | | 0 | | | 120,501 | 0.0% |
| L2USCH | | | | | | | 0 | | | 507,263 | 0.0% |
| PEM1F | | | | | | | 0 | | | 1,975 | 0.0% |
| PFO1A | | | | | | | 0 | | | 4,599 | 0.0% |
| POWF | | | | | | | 0 | | | 16,054 | 0.0% |
| POWHH | | | | | | | 0 | | | 55,151 | 0.0% |
| PSS/EM1CH | | | | | | | 0 | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | | | | 0 | | | 1,563 | 0.0% |
| PUBF | | | | | | | 0 | | | 54,121 | 0.0% |

*Table II-35. Restricted Future Land-Use Use Alternative (R2) (capping) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Habitat (area) | | | | | | | | | | | |
| Riparian | 560,953 | 253,683 | 145,191 | 113,771 | 27,908 | 60,050 | 1,161,556 | 9,757,126 | 11.9% | 41,135,033 | 2.8% |
| River | 9,749 | 8,126 | 2,026 | 2,633 | | | 22,534 | 186,624 | 12.1% | 36,018,639 | 0.1% |
| Cheatgrass/Tumblemustard | 669,009 | 409,410 | 136,585 | 101,824 | 443,347 | 439,098 | 2,199,273 | 43,758,990 | 5.0% | 121,991,909 | 1.8% |
| Sagebrush/Sandberg's Bluegrass | 146 | 1,109 | | | 29,930 | 8,399 | 39,584 | 7,946,441 | 0.5% | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | 145,444 | 85,523 | 6,727 | 13,019 | 20,029 | 25,084 | 295,826 | 5,039,439 | 5.9% | 209,426,250 | 0.1% |
| Dunes | | | | | | 9,948 | 9,948 | 1,157,205 | 0.9% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | | | | | 0 | | | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | | | | 0 | | | 2,856,928 | 0.0% |
| Hopsage | | | | | | | 0 | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | | | | | 0 | | | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | | | | 0 | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | | | | | |
| Bald Eagle | | | | | | | 0 | 5 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | | | | 0 | 6 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | | | | 0 | | | 3 | 0.0% |
| Ferruginous Hawk | | | | | | | 0 | | | 13 | 0.0% |
| Great Egret | | | | | | | 0 | | | 1 | 0.0% |
| Prairie Falcon | | | | | | | 0 | | | 5 | 0.0% |
| Common Loon | | | | | | | 0 | | | 1 | 0.0% |
| Long-Billed Curlew | | | | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | | | | 0 | | | 11 | 0.0% |
| Forster's Tern | | | | | | | 0 | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | | | | | |
| Waterfowl | 825 | 1,780 | | | | | 2,605 | 222,786 | 1.2% | 16,605,001 | 0.0% |
| Bald Eagle | | | | | | | 0 | 257,513 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | | | | | | 0 | 6,264 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | | | | 0 | | | 20,265,341 | 0.0% |

*Table H-35. Restricted Future Land-Use Use Alternative (R2) (capping) for the Reactors on the River (RR) Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Effluent Lines (sq m) | Trample Zone for Effluent Lines (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | RR Total Area (sq m) | Impact/ RR Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hawks | | | | | | | | | | | |
| Active Ferr. Nests | | | | | | | 0 | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | | | | 0 | | | 1 | 0.0% |
| Swainson's Nest | | | | | | 1 | 1 | 3 | 33.3% | 14 | 7.1% |
| Eagles | | | | | | | | | | | |
| Frequently used communal roost | | | | | | | 0 | 2 | 0.0% | 3 | 0.0% |
| Frequently used perch trees | | | | | | | 0 | 5 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | 1 | | | | | 1 | 2 | 19 | 10.5% | 42 | 4.8% |
| Frequently used ground perches | | | | | | | 0 | 6 | 0.0% | 60 | 0.0% |
| Infrequently used ground perches | 1 | | | | | | 1 | 6 | 16.7% | 48 | 2.1% |
| Shrike | | | | | | | | | | | |
| Number | | | | | | | 0 | 10 | 0.0% | 244 | 0.0% |
| Refuge (area) | | | | | | | | | | | |
| McNary National Wildlife | | | | | | | 0 | | | 1,907,126 | 0.0% |
| Elk | | | | | | | | | | | |
| Area | | | | | | | 0 | | | 3,483 | 0.0% |
| Archaeological Site | | | | | | | | | | | |
| Point data | 1 | | | | | 3 | 4 | 92 | 4.3% | 462 | 0.9% |
| Area data | 6,911 | 3,995 | | | 405 | 2,765 | 14,076 | 204,669 | 6.9% | 2,233,952 | 0.6% |
| Linear data | 102 | 119 | 202 | 28 | 106 | 179 | 736 | 21,423 | 3.4% | 100,479 | 0.7% |

*Table H-36. No-Action Alternative for the Central Plateau Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Geological Formation (area) | | | | | |
| Qa | | 100,806 | 0.0% | 35,229,739 | 0.0% |
| Qds | 795,924 | 40,816,208 | 2.0% | 395,583,359 | 0.2% |
| Qfg(3-4u) | 1,954,306 | 61,993,964 | 3.2% | 283,845,156 | 0.7% |
| WTR | | | | 28,185,411 | 0.0% |
| MVI(sp) | | 20,732 | 0.0% | 7,296,136 | 0.0% |
| Qda | 972 | 920,780 | 0.1% | 16,259,644 | 0.0% |
| Qfs4 | | | | 346,964 | 0.0% |
| MV(sem) | | 55,855 | 0.0% | 8,635,453 | 0.0% |
| QLS | | | | 1,431,924 | 0.0% |
| QD | | | | 1,264 | 0.0% |
| MV(WFS) | | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | 1,232,366 | 0.0% |
| QL | | | | 5,689,564 | 0.0% |
| Qaf | | | | 60,989 | 0.0% |
| Qfs | | | | 542 | 0.0% |
| Qfs3 | | 9,667,034 | 0.0% | 49,579,275 | 0.0% |
| Qfg | | | | 1,420,756 | 0.0% |
| Qfg(3) | | 337,068 | 0.0% | 5,383,077 | 0.0% |
| Qfg(1) | | | | 275,460 | 0.0% |
| Qplg | | | | 4,536,379 | 0.0% |
| PLMc | | | | 227,268 | 0.0% |
| PLMcg | | | | 157,924 | 0.0% |
| MVse | | 108,195 | 0.0% | 657,418 | 0.0% |
| MVsa | | | | 115,418 | 0.0% |
| MVsu | | | | 1,685,630 | 0.0% |
| MVwpr | | | | 683,570 | 0.0% |
| MVwr | | | | 427,399 | 0.0% |
| MC | | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | 722,253 | 0.0% |
| Soils (area) | | | | | |
| Rupert Sand/Quincy Sand | 1,256,905 | 46,427,025 | 2.7% | 363,240,560 | 0.3% |
| Burbank Loamy Sand | 1,334,152 | 45,244,646 | 2.9% | 214,108,292 | 0.6% |
| Ephrata Sandy Loam | 90,420 | 15,595,180 | 0.6% | 98,218,531 | 0.1% |
| Ephrata Stony Loam | | | | 19,465,389 | 0.0% |
| Pasco Silt Loam | | | | 1,779,706 | 0.0% |
| Riverwash | | | | 4,858,130 | 0.0% |
| Kiona Silt Loam | | 308,485 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | | | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | 69,729 | 1,680,325 | 4.1% | 8,719,415 | 0.8% |
| Hezel Sand | | 5,213,967 | 0.0% | 25,989,076 | 0.0% |
| Koehler Sand | | 451,016 | 0.0% | 2,180,754 | 0.0% |

*Table H-36. No-Action Alternative for the Central Plateau Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Ritzville Silt Loam | | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | |
| Shrub Steppe on slopes | | | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 504,069 | 76,291,463 | 0.7% | 257,145,256 | 0.2% |
| Cheatgrass | 6,655 | 4,366,041 | 0.2% | 82,214,075 | 0.0% |
| Abandoned | | | | 40,667,290 | 0.0% |
| Disturbed/Facilities | 2,160,964 | 19,120,783 | 11.3% | 41,824,676 | 5.2% |
| Water | 55,866 | 172,861 | 32.3% | 31,368,419 | 0.2% |
| Recovering SS on CR | 23,649 | 14,143,949 | 0.2% | 344,935,542 | 0.0% |
| Riparian | | | | 8,530,755 | 0.0% |
| Sand | | 472,292 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | 749,243 | 0.0% |
| Agriculture | | | | 129,892 | 0.0% |
| Basalt | | 353,254 | 0.0% | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | |
| U | 2,679,090 | 114,597,300 | 2.3% | 814,429,104 | 0.3% |
| L1OWHH | | | | 34,602,769 | 0.0% |
| PEM1CX | | | | 3,912 | 0.0% |
| POWFX | 38,383 | 91,808 | 41.8% | 134,387 | 28.6% |
| POWHX | | | | 27,099 | 0.0% |
| POWFH | | | | 57,092 | 0.0% |
| PEM1C | | 31,614 | 0.0% | 81,960 | 0.0% |
| PEM1CH | | | | 400,097 | 0.0% |
| PEMIFH | | | | 101,001 | 0.0% |
| POWH | | | | 61,838 | 0.0% |
| L1OWH | | 61,498 | 0.0% | 233,974 | 0.0% |
| L1UBFH | | | | 21,351 | 0.0% |
| L2RSAH | | | | 73,873 | 0.0% |
| L2UBFH | | | | 56,490 | 0.0% |
| L2UBFX | 32,644 | 133,861 | 24.4% | 133,861 | 24.4% |
| L2UBGH | | | | 20,365 | 0.0% |
| L2UBKFH | | | | 23,625 | 0.0% |
| L2USAH | | | | 120,501 | 0.0% |
| L2USCH | | | | 507,263 | 0.0% |
| PEM1F | | | | 1,975 | 0.0% |
| PFO1A | 1,087 | 4,599 | 23.6% | 4,599 | 23.6% |
| POWF | | | | 16,054 | 0.0% |
| POWHH | | | | 55,151 | 0.0% |
| PSS/EM1CH | | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | 1,563 | 0.0% |

*Table H-36. No-Action Alternative for the Central Plateau Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| PUBF | | | | 54,121 | 0.0% |
| Habitat (area) | | | | | |
| Riparian | | | | 41,135,033 | 0.0% |
| River | | | | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | | | | 121,991,909 | 0.0% |
| Sagebrush/Sandberg's Bluegrass | 2,751,203 | 109,494,800 | 2.5% | 314,625,100 | 0.9% |
| Sagebrush-Bitterbrush/Sandberg's | | | | 209,426,250 | 0.0% |
| Dunes | | 5,124,512 | 0.0% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | 289,841 | 0.0% | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | 2,856,928 | 0.0% |
| Hopsage | | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | 11,435 | 0.0% | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | 2,140,960 | 0.0% |
| Heritage Data | | | | | |
| Bald Eagle | | | | 14 | 0.0% |
| Swainson's Hawk | | 2 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | 3 | 0.0% |
| Ferruginous Hawk | | 1 | 0.0% | 13 | 0.0% |
| Great Egret | | | | 1 | 0.0% |
| Prairie Falcon | | 1 | 0.0% | 5 | 0.0% |
| Common Loon | | | | 1 | 0.0% |
| Long-Billed Curlew | | | | 2 | 0.0% |
| American White Pelican | | | | 11 | 0.0% |
| Forster's Tern | | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | |
| Waterfowl | | | | 16,605,001 | 0.0% |
| Bald Eagle | | | | 707,896 | 0.0% |
| American White Pelican | | | | 470,936 | 0.0% |
| Loggerhead Shrike | 14,098 | 8,104,474 | 0.2% | 20,265,341 | 0.1% |
| Hawks | | | | | |
| Active Ferr. Nests | | | | 10 | 0.0% |
| Historic Ferr. Nests | | | | 1 | 0.0% |
| Swainson's Nest | | 1 | 0.0% | 14 | 0.0% |
| Eagles | | | | | |
| Frequently used communal roost | | | | 3 | 0.0% |
| Frequently used perch trees | | | | 8 | 0.0% |
| Infrequently used roost/perches | | | | 42 | 0.0% |
| Frequently used ground perches | | | | 60 | 0.0% |
| Infrequently used ground perches | | | | 48 | 0.0% |

*Table H-36. No-Action Alternative for the Central Plateau Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Shrike | | | | | |
| Number | | 33 | 0.0% | 244 | 0.0% |
| Refuge (area) | | | | | |
| McNary National Wildlife | | | | 1,907,126 | 0.0% |
| Elk | | | | | |
| Area | | | | 3,483 | 0.0% |
| Archaeological Site | | | | | |
| Point data | | 61 | 0.0% | 462 | 0.0% |
| Area data | 11,965 | 129,297 | 9.3% | 2,233,952 | 0.5% |
| Linear data | 459 | 32,769 | 1.4% | 100,479 | 0.5% |

*Table H-37. Exclusive Future Land-Use Alternative (capping) for the Central Plateau Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| **Geological Formation (area)** | | | | | | | | | |
| Qa | | | | | 0 | 100,806 | 0.0% | 35,229,739 | 0.0% |
| Qds | 3,165,107 | 937,596 | 43,439 | 88,739 | 4,234,881 | 40,816,208 | 10.4% | 395,583,359 | 1.1% |
| Qfg(3-4u) | 8,208,628 | 3,096,865 | 644,877 | 293,233 | 12,243,603 | 61,993,964 | 19.7% | 283,845,156 | 4.3% |
| WTR | | | | | 0 | | | 28,185,411 | 0.0% |
| MVI(sp) | | | | | 0 | 20,732 | 0.0% | 7,296,136 | 0.0% |
| Qda | 8,956 | 34,156 | | | 43,112 | 920,780 | 4.7% | 16,259,644 | 0.3% |
| Qfs4 | | | | | 0 | | | 346,964 | 0.0% |
| MV(sem) | | | | | 0 | 55,855 | 0.0% | 8,635,453 | 0.0% |
| QLS | | | | | 0 | | | 1,431,924 | 0.0% |
| QD | | | | | 0 | | | 1,264 | 0.0% |
| MV(WFS) | | | | | 0 | | | 1,057,772 | 0.0% |
| MV(gn2) | | | | | 0 | | | 1,232,366 | 0.0% |
| QL | | | | | 0 | | | 5,689,564 | 0.0% |
| Qaf | | | | | 0 | | | 60,989 | 0.0% |
| Qfs | | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | | | 11,697 | 11,697 | 9,667,034 | 0.1% | 49,579,275 | 0.0% |
| Qfg | | | | | 0 | | | 1,420,756 | 0.0% |
| Qfg(3) | | | | | 0 | 337,068 | 0.0% | 5,383,077 | 0.0% |
| Qfg(1) | | | | | 0 | | | 275,460 | 0.0% |
| Qplg | | | | | 0 | | | 4,536,379 | 0.0% |
| PLMc | | | | | 0 | | | 227,268 | 0.0% |
| PLMcg | | | | | 0 | | | 157,924 | 0.0% |
| MVse | | | | | 0 | 108,195 | 0.0% | 657,418 | 0.0% |
| MVsa | | | | | 0 | | | 115,418 | 0.0% |
| MVsu | | | | | 0 | | | 1,685,630 | 0.0% |
| MVwpr | | | | | 0 | | | 683,570 | 0.0% |
| MVwr | | | | | 0 | | | 427,399 | 0.0% |
| MC | | | | | 0 | | | 409,989 | 0.0% |
| QFS(3-4u) | | | | | 0 | | | 722,253 | 0.0% |
| **Soils (area)** | | | | | | | | | |
| Rupert Sand/Quincy Sand | 5,867,276 | 2,685,032 | 56,881 | 185,705 | 8,794,894 | 46,427,025 | 18.9% | 363,240,560 | 2.4% |

*Table H-37. Exclusive Future Land-Use Alternative (capping) for the Central Plateau Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Burbank Loamy Sand | 4,499,926 | 982,558 | 557,003 | 163,052 | 6,202,539 | 45,244,646 | 13.7% | 214,108,292 | 2.9% |
| Ephrata Sandy Loam | 753,661 | 331,737 | 74,441 | 44,929 | 1,204,768 | 15,595,180 | 7.7% | 98,218,531 | 1.2% |
| Ephrata Stony Loam | | | | | 0 | | | 19,465,389 | 0.0% |
| Pasco Silt Loam | | | | | 0 | | | 1,779,706 | 0.0% |
| Riverwash | | | | | 0 | | | 4,858,130 | 0.0% |
| Kiona Silt Loam | | | | | 0 | 308,485 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | | | | 0 | | | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | 261,830 | 67,422 | | | 329,252 | 1,680,325 | 19.6% | 8,719,415 | 3.8% |
| Hezel Sand | | 1,864 | | | 1,864 | 5,213,967 | 0.0% | 25,989,076 | 0.0% |
| Koehler Sand | | | | | 0 | 451,016 | 0.0% | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | | 0 | | | 4,534,034 | 0.0% |
| Warden Silt Loam | | | | | 0 | | | 15,743,723 | 0.0% |
| **Vegetation (area)** | | | | | | | | | |
| Shrub Steppe on slopes | | | | | 0 | | | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 2,885,908 | 984,999 | 495,934 | 199,763 | 4,566,604 | 76,291,463 | 6.0% | 257,145,256 | 1.8% |
| Cheatgrass | 182,155 | 102,297 | 14,201 | 113 | 298,766 | 4,366,041 | 6.8% | 82,214,075 | 0.4% |
| Abandoned | | | | | 0 | | | 40,667,290 | 0.0% |
| Disturbed/Facilities | 7,857,092 | 2,825,260 | 78,866 | 142,247 | 10,903,465 | 19,120,783 | 57.0% | 41,824,676 | 26.1% |
| Water | 172,861 | | | | 172,861 | 172,861 | 100.0% | 31,368,419 | 0.6% |
| Recovering SS on CR | 284,671 | 155,307 | 99,287 | 51,057 | 590,322 | 14,143,949 | 4.2% | 344,935,542 | 0.2% |
| Riparian | | | | | 0 | | | 8,530,755 | 0.0% |
| Sand | | 753 | | 497 | 1,250 | 472,292 | 0.3% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | | 0 | | | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | | 0 | | | 749,243 | 0.0% |
| Agriculture | | | | | 0 | | | 129,892 | 0.0% |
| Basalt | | | | | 0 | 353,254 | 0.0% | 8,522,582 | 0.0% |
| **Wetlands (area)** | | | | | | | | | |
| U | 11,165,761 | 4,064,920 | 688,324 | 391,002 | 16,310,007 | 114,597,300 | 14.2% | 814,429,104 | 2.0% |
| L1OWHH | | | | | 0 | | | 34,602,769 | 0.0% |
| PEM1CX | | | | | 0 | | | 3,912 | 0.0% |
| POWFX | 78,468 | 3,697 | | | 82,165 | 91,808 | 89.5% | 134,387 | 61.1% |
| POWHX | | | | | 0 | | | 27,099 | 0.0% |



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*Table H-37. Exclusive Future Land-Use Alternative (capping) for the Central Plateau Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| POWFH | | | | | 0 | | | 57,092 | 0.0% |
| PEM1C | | | | 170 | 170 | 31,614 | 0.5% | 81,960 | 0.2% |
| PEM1CH | | | | | 0 | | | 400,097 | 0.0% |
| PEMIFH | | | | | 0 | | | 101,001 | 0.0% |
| POWH | | | | | 0 | | | 61,838 | 0.0% |
| L1OWH | | | | 2,507 | 2,507 | 61,498 | 4.1% | 233,974 | 1.1% |
| L1UBFH | | | | | 0 | | | 21,351 | 0.0% |
| L2RSAH | | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | | 0 | | | 56,490 | 0.0% |
| L2UBFX | 133,861 | | | | 133,861 | 133,861 | 100.0% | 133,861 | 100.0% |
| L2UBGH | | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | | 0 | | | 23,625 | 0.0% |
| L2USAH | | | | | 0 | | | 120,501 | 0.0% |
| L2USCH | | | | | 0 | | | 507,263 | 0.0% |
| PEM1F | | | | | 0 | | | 1,975 | 0.0% |
| PFO1A | 4,599 | | | | 4,599 | 4,599 | 100.0% | 4,599 | 100.0% |
| POWF | | | | | 0 | | | 16,054 | 0.0% |
| POWHH | | | | | 0 | | | 55,151 | 0.0% |
| PSS/EM1CH | | | | | 0 | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | | 0 | | | 1,563 | 0.0% |
| PUBF | | | | | 0 | | | 54,121 | 0.0% |

*Table H-37. Exclusive Future Land-Use Alternative (capping) for the Central Plateau Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| **Habitat (area)** | | | | | | | | | |
| Riparian | | | | | 0 | | | 41,135,033 | 0.0% |
| River | | | | | 0 | | | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | | | | | 0 | | | 121,991,909 | 0.0% |
| Sagebrush/Sandberg's Bluegra | 11,382,690 | 4,068,617 | 687,084 | 389,134 | 16,527,525 | 109,494,800 | 15.1% | 314,625,100 | 5.3% |
| Sagebrush-Bitterbrush/Sandberg's | | | | | 0 | | | 209,426,250 | 0.0% |
| Dunes | | | | 4,543 | 4,543 | 5,124,512 | 0.1% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | | | | 0 | 289,841 | 0.0% | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | | | | | 0 | | | 2,856,928 | 0.0% |
| Hopsage | | | | | 0 | | | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | 1,240 | | 1,240 | 11,435 | 10.8% | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | | | | 0 | | | 2,140,960 | 0.0% |
| **Heritage Data** | | | | | | | | | |
| Bald Eagle | | | | | 0 | | | 14 | 0.0% |
| Swainson's Hawk | | | | | 0 | 2 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | | 0 | | | 3 | 0.0% |
| Ferruginous Hawk | | | | | 0 | 1 | 0.0% | 13 | 0.0% |
| Great Egret | | | | | 0 | | | 1 | 0.0% |
| Prairie Falcon | | | | | 0 | 1 | 0.0% | 5 | 0.0% |
| Common Loon | | | | | 0 | | | 1 | 0.0% |
| Long-Billed Curlew | | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | | 0 | | | 11 | 0.0% |
| Forster's Tern | | | | | 0 | | | 1 | 0.0% |
| **Priority Habitat & Species (Area)** | | | | | | | | | |
| Waterfowl | | | | | 0 | | | 16,605,001 | 0.0% |
| Bald Eagle | | | | | 0 | | | 707,896 | 0.0% |
| American White Pelican | | | | | 0 | | | 470,936 | 0.0% |
| Loggerhead Shrike | 87,107 | 67,571 | | | 154,678 | 8,104,474 | 1.9% | 20,265,341 | 0.8% |
| **Hawks** | | | | | | | | | |
| Active Ferr. Nests | | | | | 0 | | | 10 | 0.0% |



9513170.0921

*Table II-37. Exclusive Future Land-Use Alternative (capping) for the Central Plateau Geographic Area (5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | CP Total Area (sq m) | Impact/ CP Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Historic Ferr. Nests | | | | | 0 | | | 1 | 0.0% |
| Swainson's Nest | | | | | 0 | 1 | 0.0% | 14 | 0.0% |
| **Eagles** | | | | | | | | | |
| Frequently used communal roost | | | | | 0 | | | 3 | 0.0% |
| Frequently used perch trees | | | | | 0 | | | 8 | 0.0% |
| Infrequently used roost/perches | | | | | 0 | | | 42 | 0.0% |
| Frequently used ground perches | | | | | 0 | | | 60 | 0.0% |
| Infrequently used ground perches | | | | | 0 | | | 48 | 0.0% |
| **Shrike** | | | | | | | | | |
| Number | | | | | 0 | 33 | 0.0% | 244 | 0.0% |
| **Refuge (area)** | | | | | | | | | |
| McNary National Wildlife | | | | | 0 | | | 1,907,126 | 0.0% |
| **Elk** | | | | | | | | | |
| Area | | | | | 0 | | | 3,483 | 0.0% |
| **Archaeological Site** | | | | | | | | | |
| Point data | 4 | 4 | | | 8 | 61 | 13.1% | 462 | 1.7% |
| Area data | 78,103 | 43,635 | | | 121,738 | 129,297 | 94.2% | 2,233,952 | 5.4% |
| Linear data | 1,149 | 932 | 251 | 66 | 2,398 | 32,769 | 7.3% | 100,479 | 2.4% |

*Table H-38. No-Action Alternative for the All Other Areas Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Geological Formation (area) | | | | | |
| Qa | | 16,183,200 | 0.0% | 35,229,739 | 0.0% |
| Qds | 99,406 | 343,629,233 | 0.0% | 395,583,359 | 0.0% |
| Qfg(3-4u) | 326,694 | 169,734,982 | 0.2% | 283,845,156 | 0.1% |
| WTR | 419 | 90,123 | 0.5% | 28,185,411 | 0.0% |
| MVI(sp) | 11 | 7,262,326 | 0.0% | 7,296,136 | 0.0% |
| Qda | | 14,662,499 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | 99,617 | 0.0% | 346,964 | 0.0% |
| MV(sem) | 185 | 8,525,660 | 0.0% | 8,635,453 | 0.0% |
| QLS | | 850,414 | 0.0% | 1,431,924 | 0.0% |
| QD | | | | 1,264 | 0.0% |
| MV(WFS) | | 1,057,772 | 0.0% | 1,057,772 | 0.0% |
| MV(gn2) | | 1,232,366 | 0.0% | 1,232,366 | 0.0% |
| QL | | 5,689,564 | 0.0% | 5,689,564 | 0.0% |
| Qaf | | 60,989 | 0.0% | 60,989 | 0.0% |
| Qfs | | | | 542 | 0.0% |
| Qfs3 | | 39,912,250 | 0.0% | 49,579,275 | 0.0% |
| Qfg | | 1,077,684 | 0.0% | 1,420,756 | 0.0% |
| Qfg(3) | | 5,046,018 | 0.0% | 5,383,077 | 0.0% |
| Qfg(1) | | 275,460 | 0.0% | 275,460 | 0.0% |
| Qplg | | 4,536,379 | 0.0% | 4,536,379 | 0.0% |
| PLMc | | 135,280 | 0.0% | 227,268 | 0.0% |
| PLMcg | | | | 157,924 | 0.0% |
| MVse | | 549,223 | 0.0% | 657,418 | 0.0% |
| MVsa | | 115,418 | 0.0% | 115,418 | 0.0% |
| MVsu | | 1,685,630 | 0.0% | 1,685,630 | 0.0% |
| MVwpr | | 683,570 | 0.0% | 683,570 | 0.0% |
| MVwr | | 427,399 | 0.0% | 427,399 | 0.0% |
| MC | | 409,989 | 0.0% | 409,989 | 0.0% |
| QFS(3-4u) | | 354,799 | 0.0% | 722,253 | 0.0% |
| Soils (area) | | | | | |
| Rupert Sand/Quincy Sand | 169,143 | 304,355,964 | 0.1% | 363,240,560 | 0.0% |
| Burbank Loamy Sand | 106,710 | 146,229,585 | 0.1% | 214,108,292 | 0.0% |
| Ephrata Sandy Loam | 144,145 | 66,998,184 | 0.2% | 98,218,531 | 0.1% |
| Ephrata Stony Loam | | 3,370,516 | 0.0% | 19,465,389 | 0.0% |
| Pasco Silt Loam | | 985,159 | 0.0% | 1,779,706 | 0.0% |
| Riverwash | | 1,271,730 | 0.0% | 4,858,130 | 0.0% |
| Kiona Silt Loam | 216 | 17,856,559 | 0.0% | 18,513,547 | 0.0% |
| Dune Sand | | 21,877,916 | 0.0% | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | 3,198 | 7,039,085 | 0.0% | 8,719,415 | 0.0% |
| Hezel Sand | | 20,775,108 | 0.0% | 25,989,076 | 0.0% |

*Table H-38. No-Action Alternative for the All Other Areas Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Koehler Sand | | 1,729,738 | 0.0% | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | 4,534,034 | 0.0% | 4,534,034 | 0.0% |
| Warden Silt Loam | | 15,743,723 | 0.0% | 15,743,723 | 0.0% |
| Vegetation (area) | | | | | |
| Shrub Steppe on slopes | | 2,767,252 | 0.0% | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 49,288 | 158,860,045 | 0.0% | 257,145,256 | 0.0% |
| Cheatgrass | 9,304 | 59,831,288 | 0.0% | 82,214,075 | 0.0% |
| Abandoned | 2,590 | 22,562,174 | 0.0% | 40,667,290 | 0.0% |
| Disturbed/Facilities | 234,702 | 12,627,052 | 1.9% | 41,824,676 | 0.6% |
| Water | 7,855 | 783,043 | 1.0% | 31,368,419 | 0.0% |
| Recovering SS on CR | 118,530 | 326,346,442 | 0.0% | 344,935,542 | 0.0% |
| Riparian | | 1,288,798 | 0.0% | 8,530,755 | 0.0% |
| Sand | 206 | 27,649,554 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | 1,385,293 | 0.0% | 1,385,293 | 0.0% |
| Hopsage/Greasewood | 4,241 | 749,243 | 0.6% | 749,243 | 0.6% |
| Agriculture | | 129,892 | 0.0% | 129,892 | 0.0% |
| Basalt | | 8,169,328 | 0.0% | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | |
| U | 393,639 | 623,318,341 | 0.1% | 814,429,104 | 0.0% |
| L1OWHH | 4,223 | 428,090 | 1.0% | 34,602,769 | 0.0% |
| PEM1CX | | | | 3,912 | 0.0% |
| POWFX | 19,109 | 20,559 | 92.9% | 134,387 | 14.2% |
| POWHX | | 6,903 | 0.0% | 27,099 | 0.0% |
| POWFH | | | | 57,092 | 0.0% |
| PEM1C | 4,220 | 28,036 | 15.1% | 81,960 | 5.1% |
| PEM1CH | | 129,630 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | 31,200 | 0.0% | 101,001 | 0.0% |
| POWH | | 44,307 | 0.0% | 61,838 | 0.0% |
| L1OWH | 5,524 | 172,476 | 3.2% | 233,974 | 2.4% |
| L1UBFH | | 6,433 | 0.0% | 21,351 | 0.0% |
| L2RSAH | | | | 73,873 | 0.0% |
| L2UBFH | | 11,929 | 0.0% | 56,490 | 0.0% |
| L2UBFX | | | | 133,861 | 0.0% |
| L2UBGH | | | | 20,365 | 0.0% |
| L2UBKFH | | | | 23,625 | 0.0% |
| L2USAH | | | | 120,501 | 0.0% |
| L2USCH | | | | 507,263 | 0.0% |
| PEM1F | | 1,975 | 0.0% | 1,975 | 0.0% |
| PFO1A | | | | 4,599 | 0.0% |
| POWF | | 11,646 | 0.0% | 16,054 | 0.0% |
| POWHH | | 22,176 | 0.0% | 55,151 | 0.0% |

*Table H-38. No-Action Alternative for the All Other Areas Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| PSS/EM1CH | | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | 1,563 | 0.0% |
| PUBF | | 54,121 | 0.0% | 54,121 | 0.0% |
| Habitat (area) | | | | | |
| Riparian | 170,930 | 21,497,155 | 0.8% | 41,135,033 | 0.4% |
| River | 2,741 | 516,064 | 0.5% | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | 23,725 | 78,232,786 | 0.0% | 121,991,909 | 0.0% |
| Sagebrush/Sandberg's Bluegrass | 52,547 | 197,183,810 | 0.0% | 314,625,100 | 0.0% |
| Sagebrush-Bitterbrush/Sandberg's | 155,455 | 204,387,020 | 0.1% | 209,426,250 | 0.1% |
| Dunes | 9,208 | 66,402,650 | 0.0% | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | 19,796,809 | 0.0% | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | 12,108 | 2,856,928 | 0.4% | 2,856,928 | 0.4% |
| Hopsage | | 1,438,324 | 0.0% | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | 29,719,400 | 0.0% | 29,730,820 | 0.0% |
| Thymeleaf Buckwheat | | 2,140,960 | 0.0% | 2,140,960 | 0.0% |
| Heritage Data | | | | | |
| Bald Eagle | | 7 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | 29 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | 1 | 0.0% | 3 | 0.0% |
| Ferruginous Hawk | | 12 | 0.0% | 13 | 0.0% |
| Great Egret | | 1 | 0.0% | 1 | 0.0% |
| Prairie Falcon | | 4 | 0.0% | 5 | 0.0% |
| Common Loon | | 2 | 0.0% | 1 | 0.0% |
| Long-Billed Curlew | | | | 2 | 0.0% |
| American White Pelican | | | | 11 | 0.0% |
| Forster's Tern | | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | |
| Waterfowl | | 64,734 | 0.0% | 16,605,001 | 0.0% |
| Bald Eagle | | 57,015 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | 1,677 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | 12,160,865 | 0.0% | 20,265,341 | 0.0% |
| Hawks | | | | | |
| Active Ferr. Nests | | 10 | 0.0% | 10 | 0.0% |
| Historic Ferr. Nests | | 1 | 0.0% | 1 | 0.0% |
| Swainson's Nest | | 10 | 0.0% | 14 | 0.0% |
| Eagles | | | | | |
| Frequently used communal roost | | | | 3 | 0.0% |
| Frequently used perch trees | | 1 | 0.0% | 8 | 0.0% |

*Table H-38. No-Action Alternative for the All Other Areas Geographic Area. (4 sheets)*

| Resource Category | No Action Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|
| Infrequently used roost/perches | | 22 | 0.0% | 42 | 0.0% |
| Frequently used ground perches | | | | 60 | 0.0% |
| Infrequently used ground perches | | 7 | 0.0% | 48 | 0.0% |
| Shrike | | | | | |
| Number | | 201 | 0.0% | 244 | 0.0% |
| Refuge (area) | | | | | |
| McNary National Wildlife | | 199 | 0.0% | 1,907,126 | 0.0% |
| Elk | | | | | |
| Area | | 3,483 | 0.0% | 3,483 | 0.0% |
| Archaeological Site | | | | | |
| Point data | 2 | 276 | 0.7% | 462 | 0.4% |
| Area data | 10,964 | 1,855,126 | 0.6% | 2,233,952 | 0.5% |
| Linear data | | 46,288 | 0.0% | 100,479 | 0.0% |

*Table H-39. Restricted Future Land-Use Alternative (R1) (partial excavation) for All Other Areas (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | | | |
| Qa | | | 154,395 | 33,534 | 187,929 | 16,183,200 | 1.2% | 35,229,739 | 0.5% |
| Qds | 127,275 | 67,401 | 46,385 | 516,160 | 757,221 | 343,629,233 | 0.2% | 395,583,359 | 0.2% |
| Qfg(3-4u) | 558,276 | 258,355 | 229,165 | 421,714 | 1,467,510 | 169,734,982 | 0.9% | 283,845,156 | 0.5% |
| WTR | 22,806 | 10,727 | | | 33,533 | 90,123 | 37.2% | 28,185,411 | 0.1% |
| MVI(sp) | 565 | 2,006 | | | 2,571 | 7,262,326 | 0.0% | 7,296,136 | 0.0% |
| Qda | | | | | 0 | 14,662,499 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | | 0 | 99,617 | 0.0% | 346,964 | 0.0% |
| MV(sem) | 2,396 | 3,348 | | | 5,744 | 8,525,660 | 0.1% | 8,635,453 | 0.1% |
| QLS | | | | | 0 | 850,414 | 0.0% | 1,431,924 | 0.0% |
| QD | | | | | 0 | | | 1,264 | 0.0% |
| MV(WFS) | | | | | 0 | 1,057,772 | 0.0% | 1,057,772 | 0.0% |
| MV(gn2) | | | | | 0 | 1,232,366 | 0.0% | 1,232,366 | 0.0% |
| QL | | | | | 0 | 5,689,564 | 0.0% | 5,689,564 | 0.0% |
| Qaf | | | | | 0 | 60,989 | 0.0% | 60,989 | 0.0% |
| Qfs | | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | 460 | 616,554 | 25,178 | 642,192 | 39,912,250 | 1.6% | 49,579,275 | 1.3% |
| Qfg | | | | | 0 | 1,077,684 | 0.0% | 1,420,756 | 0.0% |
| Qfg(3) | | | | | 0 | 5,046,018 | 0.0% | 5,383,077 | 0.0% |
| Qfg(1) | | | | | 0 | 275,460 | 0.0% | 275,460 | 0.0% |
| Qplg | | | | | 0 | 4,536,379 | 0.0% | 4,536,379 | 0.0% |
| PLMc | | | | | 0 | 135,280 | 0.0% | 227,268 | 0.0% |
| PLMcg | | | | | 0 | | | 157,924 | 0.0% |
| MVse | | | | | 0 | 549,223 | 0.0% | 657,418 | 0.0% |
| MVsa | | | | | 0 | 115,418 | 0.0% | 115,418 | 0.0% |
| MVsu | | | | | 0 | 1,685,630 | 0.0% | 1,685,630 | 0.0% |
| MVwpr | | | | | 0 | 683,570 | 0.0% | 683,570 | 0.0% |
| MVwr | | | | | 0 | 427,399 | 0.0% | 427,399 | 0.0% |
| MC | | | | | 0 | 409,989 | 0.0% | 409,989 | 0.0% |
| QFS(3-4u) | | | | 1,635 | 1,635 | 354,799 | 0.5% | 722,253 | 0.2% |

*Table H-39. Restricted Future Land-Use Alternative (R1) (partial excavation) for All Other Areas (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Soils (area) | | | | | | | | | |
| Rupert Sand/Quincy Sand | 268,792 | 162,479 | 66,504 | 413,779 | 911,554 | 304,355,964 | 0.3% | 363,240,560 | 0.3% |
| Burbank Loamy Sand | 129,905 | 69,210 | 165,651 | 353,945 | 718,711 | 146,229,585 | 0.5% | 214,108,292 | 0.3% |
| Ephrata Sandy Loam | 273,315 | 89,479 | 63,782 | 19,388 | 445,964 | 66,998,184 | 0.7% | 98,218,531 | 0.5% |
| Ephrata Stony Loam | | | | | 0 | 3,370,516 | 0.0% | 19,465,389 | 0.0% |
| Pasco Silt Loam | | | | | 0 | 985,159 | 0.0% | 1,779,706 | 0.0% |
| Riverwash | | | | | 0 | 1,271,730 | 0.0% | 4,858,130 | 0.0% |
| Kiona Silt Loam | 3,217 | 5,608 | 8,385 | | 17,210 | 17,856,559 | 0.1% | 18,513,547 | 0.1% |
| Dune Sand | | | | 182,898 | 182,898 | 21,877,916 | 0.8% | 21,880,836 | 0.8% |
| Esquatzel Silt Loam | 5,632 | 4,433 | | | 10,065 | 7,039,085 | 0.1% | 8,719,415 | 0.1% |
| Hezel Sand | | | | 27,758 | 27,758 | 20,775,108 | 0.1% | 25,989,076 | 0.1% |
| Koehler Sand | | | | | 0 | 1,729,738 | 0.0% | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | | 0 | 4,534,034 | 0.0% | 4,534,034 | 0.0% |
| Warden Silt Loam | | | 742,164 | | 742,164 | 15,743,723 | 4.7% | 15,743,723 | 4.7% |
| Vegetation (area) | | | | | | | | | |
| Shrub Steppe on slopes | 5 | 728 | | | 733 | 2,767,252 | 0.0% | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 75,154 | 61,970 | 776,944 | 248,219 | 1,162,287 | 158,860,045 | 0.7% | 257,145,256 | 0.5% |
| Cheatgrass | 17,513 | 14,233 | 40,897 | 14,711 | 87,354 | 59,831,288 | 0.1% | 82,214,075 | 0.1% |
| Abandoned | 4,654 | 6,634 | 147,189 | 58,045 | 216,522 | 22,562,174 | 1.0% | 40,667,290 | 0.5% |
| Disturbed/Facilities | 417,150 | 164,215 | 13,012 | 26,464 | 620,841 | 12,627,052 | 4.9% | 41,824,676 | 1.5% |
| Water | 38,508 | 17,942 | | | 56,450 | 783,043 | 7.2% | 31,368,419 | 0.2% |
| Recovering SS on CR | 145,952 | 72,337 | 68,452 | 451,636 | 738,377 | 326,346,442 | 0.2% | 344,935,542 | 0.2% |
| Riparian | | | | | 0 | 1,288,798 | 0.0% | 8,530,755 | 0.0% |
| Sand | 587 | 896 | | 199,264 | 200,747 | 27,649,554 | 0.7% | 28,590,486 | 0.7% |
| Bunchgrasses | | | | | 0 | 1,385,293 | 0.0% | 1,385,293 | 0.0% |
| Hopsage/Greasewood | 11,794 | 3,343 | | | 15,137 | 749,243 | 2.0% | 749,243 | 2.0% |
| Agriculture | | | | | 0 | 129,892 | 0.0% | 129,892 | 0.0% |
| Basalt | | | | | 0 | 8,169,328 | 0.0% | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | | | | | |

*Table II-39. Restricted Future Land-Use Alternative (R1) (partial excavation) for All Other Areas (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| U | 646,173 | 315,768 | 1,045,485 | 998,327 | 3,005,753 | 623,318,341 | 0.5% | 814,429,104 | 0.4% |
| L1OWHH | 32,914 | 16,152 | | | 49,066 | 428,090 | 11.5% | 34,602,769 | 0.1% |
| PEM1CX | | | | | 0 | | | 3,912 | 0.0% |
| POWFX | 19,603 | 84 | | | 19,687 | 20,559 | 95.8% | 134,387 | 14.6% |
| POWHX | | | | | 0 | 6,903 | 0.0% | 27,099 | 0.0% |
| POWFH | | | | | 0 | | | 57,092 | 0.0% |
| PEM1C | 5,049 | 2,370 | 1,012 | | 8,431 | 28,036 | 30.1% | 81,960 | 10.3% |
| PEM1CH | | | | | 0 | 129,630 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | | | 0 | 31,200 | 0.0% | 101,001 | 0.0% |
| POWH | | | | | 0 | 44,307 | 0.0% | 61,838 | 0.0% |
| L1OWH | 7,578 | 7,922 | | | 15,500 | 172,476 | 9.0% | 233,974 | 6.6% |
| L1UBFH | | | | | 0 | 6,433 | 0.0% | 21,351 | 0.0% |
| L2RSAH | | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | | 0 | 11,929 | 0.0% | 56,490 | 0.0% |
| L2UBFX | | | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | | 0 | | | 23,625 | 0.0% |
| L2USAH | | | | | 0 | | | 120,501 | 0.0% |
| L2USCH | | | | | 0 | | | 507,263 | 0.0% |
| PEM1F | | | | | 0 | 1,975 | 0.0% | 1,975 | 0.0% |
| PFO1A | | | | | 0 | | | 4,599 | 0.0% |
| POWF | | | | | 0 | 11,646 | 0.0% | 16,054 | 0.0% |
| POWHH | | | | | 0 | 22,176 | 0.0% | 55,151 | 0.0% |
| PSS/EM1CH | | | | | 0 | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | | 0 | | | 1,563 | 0.0% |
| PUBF | | | | | 0 | 54,121 | 0.0% | 54,121 | 0.0% |
| Habitat (area) | | | | | | | | | |
| Riparian | 338,531 | 110,393 | | 25,083 | 474,007 | 21,497,155 | 2.2% | 41,135,033 | 1.2% |
| River | 25,887 | 12,990 | | | 38,877 | 516,064 | 7.5% | 36,018,639 | 0.1% |
| Cheatgrass/Tumblemustard | 34,188 | 18,517 | 316,267 | 22,594 | 391,566 | 78,232,786 | 0.5% | 121,991,909 | 0.3% |
| Sagebrush/Sandberg's Bluegrass | 75,673 | 59,905 | 129,814 | 125,045 | 390,437 | 197,183,810 | 0.2% | 314,625,100 | 0.1% |



9615470.0925

*Table II-39. Restricted Future Land-Use Alternative (R1) (partial excavation) for All Other Areas (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Sagebrush-Bitterbrush/Sandberg's | 207,107 | 116,974 | | 555,299 | 879,380 | 204,387,020 | 0.4% | 209,426,250 | 0.4% |
| Dunes | 14,747 | 13,390 | | 270,250 | 298,387 | 66,402,650 | 0.4% | 72,684,375 | 0.4% |
| Sagebrush/Bluebunch Wheatgrass | | | | | 0 | 19,796,809 | 0.0% | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | 15,184 | 10,128 | | | 25,312 | 2,856,928 | 0.9% | 2,856,928 | 0.9% |
| Hopsage | | | | | 0 | 1,438,324 | 0.0% | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | 600,426 | | 600,426 | 29,719,400 | 2.0% | 29,730,820 | 2.0% |
| Thymeleaf Buckwheat | | | | | 0 | 2,140,960 | 0.0% | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | | | |
| Bald Eagle | | | | | 0 | 7 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | | 0 | 29 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | | 0 | 1 | 0.0% | 3 | 0.0% |
| Ferruginous Hawk | | | | | 0 | 12 | 0.0% | 13 | 0.0% |
| Great Egret | | | | | 0 | 1 | 0.0% | 1 | 0.0% |
| Prairie Falcon | | | | | 0 | 4 | 0.0% | 5 | 0.0% |
| Common Loon | | | | | 0 | 2 | 0.0% | 1 | 0.0% |
| Long-Billed Gurlew | | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | | 0 | | | 11 | 0.0% |
| Forster's Tern | | | | | 0 | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | | | |
| Waterfowl | | | | | 0 | 64,734 | 0.0% | 16,605,001 | 0.0% |
| Bald Eagle | | | | | 0 | 57,015 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | | | | 0 | 1,677 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | | | | | 0 | 12,160,865 | 0.0% | 20,265,341 | 0.0% |
| Hawks | | | | | | | | | |
| Active Ferr. Nests | | | | | 0 | 10 | 0.0% | 10 | 0.0% |
| Historic Ferr. Nests | | | | | 0 | 1 | 0.0% | 1 | 0.0% |
| Swainson's Nest | 1 | | | | 1 | 10 | 10.0% | 14 | 7.1% |

*Table H-39. Restricted Future Land-Use Alternative (R1) (partial excavation) for All Other Areas (5 pages).*

| Resource Category | Partial Excavation (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Wells (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|---|
| Eagles | | | | | | | | | |
| Frequently used communal roost | | | | | 0 | | | 3 | 0.0% |
| Frequently used perch trees | | | | | 0 | 1 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | | | | | 0 | 22 | 0.0% | 42 | 0.0% |
| Frequently used ground perches | | | | | 0 | | | 60 | 0.0% |
| Infrequently used ground perches | | | | | 0 | 7 | 0.0% | 48 | 0.0% |
| Shrike | | | | | | | | | |
| Number | | | 2 | | 2 | 201 | 1.0% | 244 | 0.8% |
| Refuge (area) | | | ALE | | | ale | | | |
| McNary National Wildlife | | | 8,757 | | 8,757 | 199 | 4400.5% | 1,907,126 | 0.5% |
| Elk | | | | | | | | | |
| Area | | | | | 0 | 3,483 | 0.0% | 3,483 | 0.0% |
| Archaeological Site | | | | | | | | | |
| Point data | 2 | 1 | 5 | 4 | 12 | 276 | 4.3% | 462 | 2.6% |
| Area data | 13,631 | 5,149 | 397,181 | | 415,961 | 1,855,126 | 22.4% | 2,233,952 | 18.6% |
| Linear data | | | 96 | 11 | 107 | 46,288 | 0.2% | 100,479 | 0.1% |

*Table II-40. Restricted Future Land-Use Alternative (R2) (capping) for All Other Areas 5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | | |
| Qa | | | 154,395 | 154,395 | 16,183,200 | 1.0% | 35,229,739 | 0.4% |
| Qds | 162,346 | 264,421 | 46,385 | 473,152 | 343,629,233 | 0.1% | 395,583,359 | 0.1% |
| Qfg(3-4u) | 574,174 | 729,129 | 229,165 | 1,532,468 | 169,734,982 | 0.9% | 283,845,156 | 0.5% |
| WTR | 4,291 | 25,861 | | 30,152 | 90,123 | 33.5% | 28,185,411 | 0.1% |
| MVI(sp) | 790 | 11,134 | | 11,924 | 7,262,326 | 0.2% | 7,296,136 | 0.2% |
| Qda | | | | 0 | 14,662,499 | 0.0% | 16,259,644 | 0.0% |
| Qfs4 | | | | 0 | 99,617 | 0.0% | 346,964 | 0.0% |
| MV(sem) | 1,821 | 14,287 | | 16,108 | 8,525,660 | 0.2% | 8,635,453 | 0.2% |
| QLS | | | | 0 | 850,414 | 0.0% | 1,431,924 | 0.0% |
| QD | | | | 0 | | | 1,264 | 0.0% |
| MV(WFS) | | | | 0 | 1,057,772 | 0.0% | 1,057,772 | 0.0% |
| MV(gn2) | | | | 0 | 1,232,366 | 0.0% | 1,232,366 | 0.0% |
| QL | | | | 0 | 5,689,564 | 0.0% | 5,689,564 | 0.0% |
| Qaf | | | | 0 | 60,989 | 0.0% | 60,989 | 0.0% |
| Qfs | | | | 0 | | | 542 | 0.0% |
| Qfs3 | | 5,188 | 616,554 | 621,742 | 39,912,250 | 1.6% | 49,579,275 | 1.3% |
| Qfg | | | | 0 | 1,077,684 | 0.0% | 1,420,756 | 0.0% |
| Qfg(3) | | | | 0 | 5,046,018 | 0.0% | 5,383,077 | 0.0% |
| Qfg(1) | | | | 0 | 275,460 | 0.0% | 275,460 | 0.0% |
| Qplg | | | | 0 | 4,536,379 | 0.0% | 4,536,379 | 0.0% |
| PLMc | | | | 0 | 135,280 | 0.0% | 227,268 | 0.0% |
| PLMcg | | | | 0 | | | 157,924 | 0.0% |
| MVse | | | | 0 | 549,223 | 0.0% | 657,418 | 0.0% |
| MVsa | | | | 0 | 115,418 | 0.0% | 115,418 | 0.0% |
| MVsu | | | | 0 | 1,685,630 | 0.0% | 1,685,630 | 0.0% |
| MVwpr | | | | 0 | 683,570 | 0.0% | 683,570 | 0.0% |
| MVwr | | | | 0 | 427,399 | 0.0% | 427,399 | 0.0% |
| MC | | | | 0 | 409,989 | 0.0% | 409,989 | 0.0% |
| QFS(3-4u) | | | | 0 | 354,799 | 0.0% | 722,253 | 0.0% |
| Soils (area) | | | | | | | | |

*Table H-40. Restricted Future Land-Use Alternative (R2) (capping) for All Other Areas 5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|
| Rupert Sand/Quincy Sand | 315,920 | 554,763 | 66,504 | 937,187 | 304,355,964 | 0.3% | 363,240,560 | 0.3% |
| Burbank Loamy Sand | 169,155 | 209,607 | 165,651 | 544,413 | 146,229,585 | 0.4% | 214,108,292 | 0.3% |
| Ephrata Sandy Loam | 239,457 | 217,673 | 63,782 | 520,912 | 66,998,184 | 0.8% | 98,218,531 | 0.5% |
| Ephrata Stony Loam | | | | 0 | 3,370,516 | 0.0% | 19,465,389 | 0.0% |
| Pasco Silt Loam | | | | 0 | 985,159 | 0.0% | 1,779,706 | 0.0% |
| Riverwash | | | | 0 | 1,271,730 | 0.0% | 4,858,130 | 0.0% |
| Kiona Silt Loam | 2,504 | 23,915 | 8,385 | 34,804 | 17,856,559 | 0.2% | 18,513,547 | 0.2% |
| Dune Sand | | | | 0 | 21,877,916 | 0.0% | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | 7,442 | 14,995 | | 22,437 | 7,039,085 | 0.3% | 8,719,415 | 0.3% |
| Hezel Sand | | | | 0 | 20,775,108 | 0.0% | 25,989,076 | 0.0% |
| Koehler Sand | | | | 0 | 1,729,738 | 0.0% | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | | | 0 | 4,534,034 | 0.0% | 4,534,034 | 0.0% |
| Warden Silt Loam | | | 742,164 | 742,164 | 15,743,723 | 4.7% | 15,743,723 | 4.7% |
| Vegetation (area) | | | | | | | | |
| Shrub Steppe on slopes | | 5,195 | | 5,195 | 2,767,252 | 0.2% | 2,767,252 | 0.2% |
| Shrub Steppe on CR Plain | 92,633 | 212,012 | 776,944 | 1,081,589 | 158,860,045 | 0.7% | 257,145,256 | 0.4% |
| Cheatgrass | 19,183 | 49,009 | 40,897 | 109,089 | 59,831,288 | 0.2% | 82,214,075 | 0.1% |
| Abandoned | 8,181 | 33,510 | 147,189 | 188,880 | 22,562,174 | 0.8% | 40,667,290 | 0.5% |
| Disturbed/Facilities | 400,961 | 430,120 | 13,012 | 844,093 | 12,627,052 | 6.7% | 41,824,676 | 2.0% |
| Water | 20,564 | 41,810 | | 62,374 | 783,043 | 8.0% | 31,368,419 | 0.2% |
| Recovering SS on CR | 193,047 | 272,725 | 68,452 | 534,224 | 326,346,442 | 0.2% | 344,935,542 | 0.2% |
| Riparian | | | | 0 | 1,288,798 | 0.0% | 8,530,755 | 0.0% |
| Sand | 953 | 2,939 | | 3,892 | 27,649,554 | 0.0% | 28,590,486 | 0.0% |
| Bunchgrasses | | | | 0 | 1,385,293 | 0.0% | 1,385,293 | 0.0% |
| Hopsage/Greasewood | 7,900 | 2,698 | | 10,598 | 749,243 | 1.4% | 749,243 | 1.4% |
| Agriculture | | | | 0 | 129,892 | 0.0% | 129,892 | 0.0% |
| Basalt | | | | 0 | 8,169,328 | 0.0% | 8,522,582 | 0.0% |
| Wetlands (area) | | | | | | | | |
| U | 692,753 | 991,727 | 1,045,485 | 2,729,965 | 623,318,341 | 0.4% | 814,429,104 | 0.3% |
| L1OWHH | 14,390 | 38,282 | | 52,672 | 428,090 | 12.3% | 34,602,769 | 0.2% |
| PEM1CX | | | | 0 | | | 3,912 | 0.0% |



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*Table II-40. Restricted Future Land-Use Alternative (R2) (capping) for All Other Areas 5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|
| POWFX | 19,686 | | | 19,686 | 20,559 | 95.8% | 134,387 | 14.6% |
| POWHX | | | | 0 | 6,903 | 0.0% | 27,099 | 0.0% |
| POWFH | | | | 0 | | | 57,092 | 0.0% |
| PEM1C | 6,040 | 3,742 | 1,012 | 10,794 | 28,036 | 38.5% | 81,960 | 13.2% |
| PEM1CH | | | | 0 | 129,630 | 0.0% | 400,097 | 0.0% |
| PEMIFH | | | | 0 | 31,200 | 0.0% | 101,001 | 0.0% |
| POWH | | | | 0 | 44,307 | 0.0% | 61,838 | 0.0% |
| L1OWH | 10,552 | 16,267 | | 26,819 | 172,476 | 15.5% | 233,974 | 11.5% |
| L1UBFH | | | | 0 | 6,433 | 0.0% | 21,351 | 0.0% |
| L2RSAH | | | | 0 | | | 73,873 | 0.0% |
| L2UBFH | | | | 0 | 11,929 | 0.0% | 56,490 | 0.0% |
| L2UBFX | | | | 0 | | | 133,861 | 0.0% |
| L2UBGH | | | | 0 | | | 20,365 | 0.0% |
| L2UBKFH | | | | 0 | | | 23,625 | 0.0% |
| L2USAH | | | | 0 | | | 120,501 | 0.0% |
| L2USCH | | | | 0 | | | 507,263 | 0.0% |
| PEM1F | | | | 0 | 1,975 | 0.0% | 1,975 | 0.0% |
| PFO1A | | | | 0 | | | 4,599 | 0.0% |
| POWF | | | | 0 | 11,646 | 0.0% | 16,054 | 0.0% |
| POWHH | | | | 0 | 22,176 | 0.0% | 55,151 | 0.0% |
| PSS/EM1CH | | | | 0 | | | 7,711 | 0.0% |
| PSS/EM1FH | | | | 0 | | | 1,563 | 0.0% |
| PUBF | | | | 0 | 54,121 | 0.0% | 54,121 | 0.0% |

*Table II-40. Restricted Future Land-Use Alternative (R2) (capping) for All Other Areas 5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|
| Habitat (area) | | | | | | | | |
| Riparian | 291,805 | 266,618 | | 558,423 | 21,497,155 | 2.6% | 41,135,033 | 1.4% |
| River | 8,024 | 32,558 | | 40,582 | 516,064 | 7.9% | 36,018,639 | 0.1% |
| Cheatgrass/Tumblemustard | 39,958 | 67,592 | 316,267 | 423,817 | 78,232,786 | 0.5% | 121,991,909 | 0.3% |
| Sagebrush/Sandberg's Bluegrass | 91,786 | 176,616 | 129,814 | 398,216 | 197,183,810 | 0.2% | 314,625,100 | 0.1% |
| Sagebrush-Bitterbrush/Sandberg's | 271,177 | 424,280 | | 695,457 | 204,387,020 | 0.3% | 209,426,250 | 0.3% |
| Dunes | 21,486 | 61,729 | | 83,215 | 66,402,650 | 0.1% | 72,684,375 | 0.1% |
| Sagebrush/Bluebunch Wheatgrass | | 1,426 | | 1,426 | 19,796,809 | 0.0% | 20,086,650 | 0.0% |
| Bluebunch Wheatgrass | 19,186 | 19,198 | | 38,384 | 2,856,928 | 1.3% | 2,856,928 | 1.3% |
| Hopsage | | | | 0 | 1,438,324 | 0.0% | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | | | 600,426 | 600,426 | 29,719,400 | 2.0% | 29,730,820 | 2.0% |
| Thymeleaf Buckwheat | | | | 0 | 2,140,960 | 0.0% | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | | |
| Bald Eagle | | | | 0 | 7 | 0.0% | 14 | 0.0% |
| Swainson's Hawk | | | | 0 | 29 | 0.0% | 37 | 0.0% |
| Great Blue Heron | | | | 0 | 1 | 0.0% | 3 | 0.0% |
| Ferruginous Hawk | | | | 0 | 12 | 0.0% | 13 | 0.0% |
| Great Egret | | | | 0 | 1 | 0.0% | 1 | 0.0% |
| Prairie Falcon | | | | 0 | 4 | 0.0% | 5 | 0.0% |
| Common Loon | | | | 0 | 2 | 0.0% | 1 | 0.0% |
| Long-Billed Curlew | | | | 0 | | | 2 | 0.0% |
| American White Pelican | | | | 0 | | | 11 | 0.0% |
| Forster's Tern | | | | 0 | | | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | | |
| Waterfowl | | | | 0 | 64,734 | 0.0% | 16,605,001 | 0.0% |
| Bald Eagle | | | | 0 | 57,015 | 0.0% | 707,896 | 0.0% |
| American White Pelican | | | | 0 | 1,677 | 0.0% | 470,936 | 0.0% |
| Loggerhead Shrike | 1 | | | 1 | 12,160,865 | 0.0% | 20,265,341 | 0.0% |
| Hawks | | | | | | | | |



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*Table II-40: Restricted Future Land-Use Alternative (R2) (capping) for All Other Areas 5 pages).*

| Resource Category | Capping (sq m) | Trample Zone (sq m) | Haul Roads (sq m) | Total Impact Area (sq m) | OTHER Total Area (sq m) | Impact/ OTHER Total | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|---|
| Active Ferr. Nests | | | | 0 | 10 | 0.0% | 10 | 0.0% |
| Historic Ferr. Nests | | | | 0 | 1 | 0.0% | 1 | 0.0% |
| Swainson's Nest | | | | 0 | 10 | 0.0% | 14 | 0.0% |
| Eagles | | | | | | | | |
| Frequently used communal roost | | | | 0 | | | 3 | 0.0% |
| Frequently used perch trees | | | | 0 | 1 | 0.0% | 8 | 0.0% |
| Infrequently used roost/perches | | | | 0 | 22 | 0.0% | 42 | 0.0% |
| Frequently used ground perches | | | | 0 | | | 60 | 0.0% |
| Infrequently used ground perches | | | | 0 | 7 | 0.0% | 48 | 0.0% |
| Shrike | | | | | | | | |
| Number | | | 2 | 2 | 201 | 1.0% | 244 | 0.8% |
| Refuge (area) | | | | | | | | |
| McNary National Wildlife | | | 8,757 | 8,757 | 199 | 4400.5% | 1,907,126 | 0.5% |
| Elk | | | | | | | | |
| Area | | | | 0 | 3,483 | 0.0% | 3,483 | 0.0% |
| Archaeological Site | | | | | | | | |
| Point data | 3 | 2 | 5 | 10 | 276 | 3.6% | 462 | 2.2% |
| Area data | 17,369 | 14,699 | 397,181 | 429,249 | 1,855,126 | 23.1% | 2,233,952 | 19.2% |
| Linear data | | | 96 | 96 | 46,288 | 0.2% | 100,479 | 0.1% |

*Table H-41. Excavation of Quarry Materials for Capping. (4 sheets)*

| Resource Category | McGee A Quarry (sq m) | McGee B Quarry (sq m) | Gable Butte Quarry (sq m) | Pit 30 Quarry (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Geological Formation (area) | | | | | | | |
| Qa | 114,726 | 1,391,128 | | | 1,505,854 | 35,229,739 | 4.3% |
| Qds | | | | 48,992 | 48,992 | 395,583,359 | 0.0% |
| Qfg(3-4u) | | | 828,705 | 1,680,309 | 2,509,014 | 283,845,156 | 0.9% |
| WTR | | | | | 0 | 28,185,411 | 0.0% |
| MVl(sp) | | 93,185 | 215,986 | | 309,171 | 7,296,136 | 4.2% |
| Qda | | | | | 0 | 16,259,644 | 0.0% |
| Qfs4 | | | | | 0 | 346,964 | 0.0% |
| MV(sem) | | | 346,633 | | 346,633 | 8,635,453 | 4.0% |
| QLS | | | | | 0 | 1,431,924 | 0.0% |
| QD | | | | | 0 | 1,264 | 0.0% |
| MV(WFS) | | | | | 0 | 1,057,772 | 0.0% |
| MV(gn2) | | | | | 0 | 1,232,366 | 0.0% |
| QL | | 706,936 | | | 706,936 | 5,689,564 | 12.4% |
| Qaf | | | | | 0 | 60,989 | 0.0% |
| Qfs | | | | | 0 | 542 | 0.0% |
| Qfs3 | 457,665 | 5,885,494 | | | 6,343,159 | 49,579,275 | 12.8% |
| Qfg | | | | | 0 | 1,420,756 | 0.0% |
| Qfg(3) | | | | | 0 | 5,383,077 | 0.0% |
| Qfg(1) | | | | | 0 | 275,460 | 0.0% |
| Qplg | | | | | 0 | 4,536,379 | 0.0% |
| PLMc | | | | | 0 | 227,268 | 0.0% |
| PLMcg | | | | | 0 | 157,924 | 0.0% |
| MVse | | | | | 0 | 657,418 | 0.0% |
| MVsa | | | 61,558 | | 61,558 | 115,418 | 53.3% |
| MVsu | | 103,111 | | | 103,111 | 1,685,630 | 6.1% |
| MVwpr | | | | | 0 | 683,570 | 0.0% |
| MVwr | | | | | 0 | 427,399 | 0.0% |
| MC | | | | | 0 | 409,989 | 0.0% |
| QFS(3-4u) | | | | | 0 | 722,253 | 0.0% |
| Soils (area) | | | | | | | |
| Rupert Sand/Quincy Sand | 13,308 | | | 687,522 | 700,830 | 363,240,560 | 0.2% |
| Burbank Loamy Sand | | | 181,407 | 1,031,451 | 1,212,858 | 214,108,292 | 0.6% |
| Ephrata Sandy Loam | | | 590,209 | 10,329 | 600,538 | 98,218,531 | 0.6% |
| Ephrata Stony Loam | | | | | 0 | 19,465,389 | 0.0% |
| Pasco Silt Loam | | | | | 0 | 1,779,706 | 0.0% |
| Riverwash | | | | | 0 | 4,858,130 | 0.0% |
| Kiona Silt Loam | | | 681,263 | | 681,263 | 18,513,547 | 3.7% |
| Dune Sand | | | | | 0 | 21,880,836 | 0.0% |
| Esquatzel Silt Loam | | | | | 0 | 8,719,415 | 0.0% |
| Hezel Sand | | | | | 0 | 25,989,076 | 0.0% |
| Koehler Sand | | | | | 0 | 2,180,754 | 0.0% |
| Ritzville Silt Loam | | 2,969,111 | | | 2,969,111 | 4,534,034 | 65.5% |

*Table H-41. Excavation of Quarry Materials for Capping. (4 sheets)*

| Resource Category | McGee A Quarry (sq m) | McGee B Quarry (sq m) | Gable Butte Quarry (sq m) | Pit 30 Quarry (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Warden Silt Loam | 559,069 | 5,210,720 | | | 5,769,789 | 15,743,723 | 36.6% |
| Vegetation (area) | | | | | | | |
| Shrub Steppe on slopes | | | | | 0 | 2,767,252 | 0.0% |
| Shrub Steppe on CR Plain | 320,797 | 5,939,220 | 254,185 | 1,396,438 | 7,910,640 | 257,145,256 | 3.1% |
| Cheatgrass | | | 214,080 | | 214,080 | 82,214,075 | 0.3% |
| Abandoned | 239,019 | 1,875,201 | | | 2,114,220 | 40,667,290 | 5.2% |
| Disturbed/Facilities | 12,559 | 32,041 | 36,769 | 332,852 | 414,221 | 41,824,676 | 1.0% |
| Water | | | | | 0 | 31,368,419 | 0.0% |
| Recovering SS on CR | | 332,521 | 485,599 | | 818,120 | 344,935,542 | 0.2% |
| Riparian | | | | | 0 | 8,530,755 | 0.0% |
| Sand | | | | | 0 | 28,590,486 | 0.0% |
| Bunchgrasses | | | | | 0 | 1,385,293 | 0.0% |
| Hopsage/Greasewood | | | | | 0 | 749,243 | 0.0% |
| Agriculture | | 783 | | | 783 | 129,892 | 0.6% |
| Basalt | | | 462,249 | | 462,249 | 8,522,582 | 5.4% |
| Wetlands (area) | | | | | | | |
| U | 571,365 | 8,179,819 | 1,452,886 | 1,729,301 | 11,933,371 | 814,429,104 | 1.5% |
| L1OWHH | | | | | 0 | 34,602,769 | 0.0% |
| PEM1CX | | | | | 0 | 3,912 | 0.0% |
| POWFX | | | | | 0 | 134,387 | 0.0% |
| POWHX | | | | | 0 | 27,099 | 0.0% |
| POWFH | | | | | 0 | 57,092 | 0.0% |
| PEM1C | 1,012 | | | | 1,012 | 81,960 | 1.2% |
| PEM1CH | | | | | 0 | 400,097 | 0.0% |
| PEMIFH | | | | | 0 | 101,001 | 0.0% |
| POWH | | | | | 0 | 61,838 | 0.0% |
| L1OWH | | | | | 0 | 233,974 | 0.0% |
| L1UBFH | | | | | 0 | 21,351 | 0.0% |
| L2RSAH | | | | | 0 | 73,873 | 0.0% |
| L2UBFH | | | | | 0 | 56,490 | 0.0% |
| L2UBFX | | | | | 0 | 133,861 | 0.0% |
| L2UBGH | | | | | 0 | 20,365 | 0.0% |
| L2UBKFH | | | | | 0 | 23,625 | 0.0% |
| L2USAH | | | | | 0 | 120,501 | 0.0% |
| L2USCH | | | | | 0 | 507,263 | 0.0% |
| PEM1F | | | | | 0 | 1,975 | 0.0% |
| PFO1A | | | | | 0 | 4,599 | 0.0% |
| POWF | | | | | 0 | 16,054 | 0.0% |
| POWHH | | | | | 0 | 55,151 | 0.0% |
| PSS/EM1CH | | | | | 0 | 7,711 | 0.0% |
| PSS/EM1FH | | | | | 0 | 1,563 | 0.0% |
| PUBF | | | | | 0 | 54,121 | 0.0% |

*Table H-41. Excavation of Quarry Materials for Capping. (4 sheets)*

| Resource Category | McGee A Quarry (sq m) | McGee B Quarry (sq m) | Gable Butte Quarry (sq m) | Pit 30 Quarry (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Habitat (area) | | | | | | | |
| Riparian | | | | | 0 | 41,135,033 | 0.0% |
| River | | | | | 0 | 36,018,639 | 0.0% |
| Cheatgrass/Tumblemustard | 391,474 | 2,163,969 | | | 2,555,443 | 121,991,909 | 2.1% |
| Sagebrush/Sandberg's Bluegrass | | | 604,131 | 1,729,301 | 2,333,432 | 314,625,100 | 0.7% |
| Sagebrush-Bitterbrush/Sandberg's | | | | | 0 | 209,426,250 | 0.0% |
| Dunes | | | | | 0 | 72,684,375 | 0.0% |
| Sagebrush/Bluebunch Wheatgrass | | 111,425 | 848,757 | | 960,182 | 20,086,650 | 4.8% |
| Bluebunch Wheatgrass | | | | | 0 | 2,856,928 | 0.0% |
| Hopsage | | | | | 0 | 1,438,324 | 0.0% |
| Hopsage/Sagebrush | 180,904 | 5,901,818 | | | 6,082,722 | 29,730,820 | 20.5% |
| Thymeleaf Buckwheat | | | | | 0 | 2,140,960 | 0.0% |
| Heritage Data | | | | | | | |
| Bald Eagle | | | | | 0 | 14 | 0.0% |
| Swainson's Hawk | 1 | 1 | | | 2 | 37 | 5.4% |
| Great Blue Heron | | | | | 0 | 3 | 0.0% |
| Ferruginous Hawk | | | | | 0 | 13 | 0.0% |
| Great Egret | | | | | 0 | 1 | 0.0% |
| Prairie Falcon | | | | | 0 | 5 | 0.0% |
| Common Loon | | | | | 0 | 1 | 0.0% |
| Long-Billed Curlew | | | | | 0 | 2 | 0.0% |
| American White Pelican | | | | | 0 | 11 | 0.0% |
| Forster's Tern | | | | | 0 | 1 | 0.0% |
| Priority Habitat & Species (Area) | | | | | | | |
| Waterfowl | | | | | 0 | 16,605,001 | 0.0% |
| Bald Eagle | | | | | 0 | 707,896 | 0.0% |
| American White Pelican | | | | | 0 | 470,936 | 0.0% |
| Loggerhead Shrike | | | | | 0 | 20,265,341 | 0.0% |
| Hawks | | | | | | | |
| Active Ferr. Nests | | | | | 0 | 10 | 0.0% |
| Historic Ferr. Nests | | | | | 0 | 1 | 0.0% |
| Swainson's Nest | | | | | 0 | 14 | 0.0% |
| Eagles | | | | | | | |
| Frequently used communal roost | | | | | 0 | 3 | 0.0% |
| Frequently used perch trees | | | | | 0 | 8 | 0.0% |
| Infrequently used roost/perches | | | | | 0 | 42 | 0.0% |
| Frequently used ground perches | | | | | 0 | 60 | 0.0% |
| Infrequently used ground perches | | | | | 0 | 48 | 0.0% |
| Shrike | | | | | | | |

*Table H-41. Excavation of Quarry Materials for Capping. (4 sheets)*

| Resource Category | McGee A Quarry (sq m) | McGee B Quarry (sq m) | Gable Butte Quarry (sq m) | Pit 30 Quarry (sq m) | Total Impact Area (sq m) | Hanford Site Area (sq m) | Impact/ Hanford Area |
|---|---|---|---|---|---|---|---|
| Number | 1 | 2 | | | 3 | 244 | 1.2% |
| Refuge (area) | | | | | | | |
| McNary National Wildlife | | 283 | | | 283 | 1,907,126 | 0.0% |
| Elk | | | | | | | |
| Area | | | | | 0 | 3,483 | 0.0% |
| Archaeological Site | | | | | | | |
| Point data | 2 | 39 | | | 41 | 462 | 8.9% |
| Area data | 220,107 | 12,266 | | | 232,373 | 2,233,952 | 10.4% |
| Linear data | | | | | 0 | 100,479 | 0.0% |

## *Appendix H References*

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# Appendix I

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# I.0 Industrial Health and Safety Occupational Losses Estimates

This appendix presents the method and data used to estimate occupational losses for each future land-use alternative for each geographic area. The occupation losses are estimated by comparing the field labor hours identified in Appendix H for each future land-use alternative with Bureau of Labor Statistics (BLS) and U.S. Department of Energy (DOE) incident rates (National Safety Council 1993; EG&G 1993). The incident rates used are presented in Tables I-1 and I-2.

Appendix H provides total field labor estimates for all future land-use alternatives, including truck and rail transport scenarios for the Columbia River, Reactors on the River, and All Other Areas. The analysis presented here focuses on truck transport because truck transport requires a greater number of labor hours than rail transport. As such, it allows for a more complete and conservative comparison among the alternatives for each geographic area.

## I.1 Occupational Loss Calculations

Calculating occupational losses using BLS statistics involved dividing the total labor hours for each alternative among appropriate industry categories. The following categories were used for estimating potential occupational losses.

- Nonresidential building construction (Standard Industrial Classification [SIC] Code 154). This category represents new work, additions, alterations, remodeling, and repair of industrial buildings and warehouses. This category is used to represent laborers, and general construction work for the future land-use alternatives.

- Highway and street construction (SIC Code 161). This category represents asphalt paving; concrete construction; grading; resurfacing; maintenance; and repair of roads, streets, alleys, public sidewalks, parkways, and airports. This category is used for haul road and railway construction associated with the future land-use alternatives.

- Heavy construction, except highway (SIC Code 162). This category represents construction of bridges, viaducts, elevated highways, and associated tunnels. This category is used for excavation work associated with the future land-use alternatives.

- Trucking and warehousing (SIC Code 42). This category represents local or long-distance trucking or transfer services, including debris removal and hauling by dump truck. This category is used for excavated waste and capping materials hauling operations.

Once the hours for each industry category were established, the hours were multiplied by a unit incident rate (incident rate per labor hour). The unit incident rates were used to simplify the occupational loss calculations using BLS incident rates. The following relationship was used to compute the unit incident rates:

$$\text{Unit Incident Rate} = \frac{\text{Incidence Rate}}{200{,}000 \text{ man-hours}}$$

Estimated cases for each industry category were computed using the following relationship:

$$\text{Estimated Cases} = \text{Unit Incident Rate} \bullet \text{Total Labor Hours} \bullet \text{percent of Labor in Industry Category}$$

Estimated cases for DOE statistics were computed using the following relationship:

$$\text{Estimated Cases} = \text{Estimated Case rate per man-hour} \bullet \text{Total Labor Hours}$$

## *I.2 Occupational Loss Results*

The estimates of occupational losses for each future land-use alternative for each geographic area are provided in Tables I-3 through I-18. Tables I-19 and I-20 show a summary of occupational loss estimates per BLS and DOE statistics, respectively.

*Table I-1. BLS Estimates of Occupational Injury and Illness Incidence Rates for Selected Industries (BLS 1993).*

| Industry[b] | Incidence Rates[a] | | | | |
|---|---|---|---|---|---|
| | SIC Code[c] | Total Cases[d] | Lost Workday Cases | Nonfatal Cases | |
| | | | | Without Lost Workdays | Lost Workdays |
| Nonresidential building construction | 154 | 14.2 | 6.2 | 8.0 | 143.4 |
| Highway and street construction | 161 | 13.6 | 6.2 | 7.4 | 176.6 |
| Heavy construction, except highway | 162 | 12.4 | 5.9 | 6.5 | 153.2 |
| Trucking and warehousing | 42 | 14.5 | 8.7 | 5.8 | 236.6 |

$$\text{[a]Incidence Rate} = \frac{\text{(No. of injuries and illnesses} \bullet 200{,}000\text{) or (No. of lost workdays} \bullet 200{,}000\text{)}}{\text{Total hours worked by all employees during period covered where 200,000 is the base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year)}}$$

[b]Industry division 2- and 3-digit SIC code totals include data for industries not shown separately.
[c]Standard Industrial Classification (SIC) Manual, 1987 Edition.
[d]Includes fatalities.

*Table I-2. U.S. Department of Energy and Contractor Incident Rates.*

| Total DOE and Contractor Incidence Rates | Total Recordable Case | | Lost Workday Case | | Lost Workday | |
|---|---|---|---|---|---|---|
| | Incidence Rate | Deaths | No. | Incidence Rate | No. | Incidence Rate |
| 1988 through 1992 | 3.2 | -- | -- | 1.6 | -- | 41.8 |

*Table I-3. Estimates of Occupational Losses per BLS Statistics: Columbia River - Unrestricted Future Land-Use Alternative.*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 146 | 3.10 E-05 | 64 | 4.00 E-05 | 82 | 7.17 E-04 | 1,472 | 10 |
| Heavy construction | 162 | 6.20 E-05 | 255 | 2.95 E-05 | 121 | 3.25 E-05 | 133 | 7.66 E-04 | 3,146 | 20 |
| Trucking and warehousing | 42 | 7.25 E-05 | 1,042 | 4.35 E-05 | 625 | 2.90 E-05 | 417 | 1.18 E-03 | 17,003 | 70 |
| Totals<br>Projected Total Field Labor Hours = 20,532,379 | -- | -- | 1,443 | -- | 810 | -- | 632 | -- | 21,621 | 100 |

9613370.0095

*Table I-4. Estimates of Occupational Injury Losses per DOE Statistics: Columbia River - Unrestricted Future Land-Use Alternative.*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 20,532,379 | 1.73 E-05 | 354 | 7.49 E-06 | 154 | 1.16 E-04 | 2,374 |

*Table I-5. Estimates of Occupational Losses per BLS Statistics: Columbia River - Restricted Future Land-Use Alternative.*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 1 | 3.10 E-05 | 0 | 4.00 E-05 | 1 | 7.17 E-04 | 9 | 3 |
| Heavy construction, except highways | 162 | 6.20 E-05 | 6 | 2.95 E-05 | 4 | 3.25 E-05 | 3 | 7.66 E-04 | 70 | 21 |
| Trucking and warehousing | 42 | 7.25 E-05 | 24 | 4.35 E-05 | 14 | 2.90 E-05 | 10 | 1.18 E-03 | 392 | 76 |
| Totals<br>Projected Total Field Labor Hours = 436,457 | -- | -- | 31 | -- | 18 | -- | 14 | -- | 471 | 100 |

9613470.0936

*Table I-6. Estimates of Occupational Losses per DOE Statistics: Columbia River - Restricted Future Land-Use Alternative.*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 436,457 | 1.73 E-05 | 8 | 7.49 E-06 | 3 | 1.16 E-04 | 50 |

*Table I-7. Estimates of Occupational Losses per BLS Statistics: Reactors on the River - Unrestricted Future Land-Use Alternative.*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 86 | 3.10 E-05 | 38 | 4.00 E-05 | 49 | 7.17 E-04 | 871 | 9 |
| Highway and street construction | 161 | 6.80 E-05 | 9 | 3.10 E-05 | 4 | 3.70 E-05 | 5 | 8.83 E-04 | 119 | 1 |
| Heavy construction, except highways | 162 | 6.20 E-05 | 310 | 2.95 E-05 | 147 | 3.25 E-05 | 162 | 7.66 E-04 | 3,826 | 37 |
| Trucking and warehousing | 42 | 7.25 E-05 | 519 | 4.35 E-05 | 311 | 2.90 E-05 | 207 | 1.18 E-03 | 8,463 | 53 |
| Totals<br>Projected Total Field Labor Hours = 13,497,640 | -- | -- | 924 | -- | 500 | -- | 423 | -- | 13,279 | 100 |

9613470.0937

*Table I-8. Estimates of Occupational Losses per DOE Statistics: Reactors on the River - Unrestricted Future Land-Use Alternative.*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 13,497,640 | 1.73 E-05 | 233 | 7.49 E-06 | 101 | 1.16 E-04 | 1,560 |

*Table I-9. Estimates of Occupational Losses per BLS Statistics: Reactors on the River - Restricted Future Land-Use Alternative (RI).*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 90 | 3.10 E-05 | 39 | 4.00 E-05 | 50 | 7.17 E-04 | 904 | 13 |
| Highway and street construction | 161 | 6.80 E-05 | 7 | 3.10 E-05 | 3 | 3.70 E-05 | 4 | 8.83 E-04 | 86 | 1 |
| Heavy construction, except highways | 162 | 6.20 E-05 | 205 | 2.95 E-05 | 97 | 3.25 E-05 | 107 | 7.66 E-04 | 2,527 | 34 |
| Trucking and warehousing | 42 | 7.25 E-05 | 366 | 4.35 E-05 | 219 | 2.90 E-05 | 146 | 1.18 E-03 | 5,969 | 52 |
| Totals<br>Projected Total Field Labor Hours = 9,703,675 | -- | -- | 668 | -- | 358 | -- | 307 | -- | 9,486 | 100 |

9613470.0938

*Table I-10. Estimates of Occupational Losses per DOE Statistics: Reactors on the River - Restricted Future Land-Use Alternative (RI).*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 9,703,675 | 1.73 E-05 | 167 | 7.49 E-06 | 73 | 1.16 E-04 | 1,122 |

*Table I-11. Estimates of Occupational Losses per BLS Statistics: Reactors on the River - Restricted Future Land-Use Alternative (R2).*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 173 | 3.10 E-05 | 76 | 4.00 E-05 | 98 | 7.17 E-04 | 1,751 | 10 |
| Highway and street construction | 161 | 6.80 E-05 | 17 | 3.10 E-05 | 8 | 3.70 E-05 | 9 | 8.83 E-04 | 216 | 1 |
| Heavy construction, except highways | 162 | 6.20 E-05 | 212 | 2.95 E-05 | 101 | 3.25 E-05 | 111 | 7.66 E-04 | 2,620 | 15 |
| Trucking and warehousing | 42 | 7.25 E-05 | 1,328 | 4.35 E-05 | 797 | 2.90 E-05 | 531 | 1.18 E-03 | 21,673 | 74 |
| Totals<br>Projected Total Field Labor Hours = 24,427,167 | -- | -- | 1,730 | -- | 982 | -- | 749 | -- | 26,260 | 100 |

96139701.0939

*Table I-12. Estimates of Occupational Losses per DOE Statistics: Reactors on the River - Restricted Future Land-Use Alternative (R2).*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 24,427,167 | 1.73 E-05 | 421 | 7.49 E-06 | 183 | 1.16 E-04 | 2,824 |

*Table I-13. Estimates of Occupational Losses per BLS Statistics: Central Plateau - Restricted Future Land-Use Alternative.*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 59 | 3.10 E-05 | 26 | 4.00 E-05 | 33 | 7.17 E-04 | 599 | 10 |
| Heavy construction, except highways | 162 | 6.20 E-05 | 150 | 2.95 E-05 | 71 | 3.25 E-05 | 79 | 7.66 E-04 | 1,856 | 29 |
| Trucking and warehousing | 42 | 7.25 E-05 | 370 | 4.35 E-05 | 222 | 2.90 E-05 | 148 | 1.18 E-03 | 6,029 | 61 |
| Totals<br>Projected Total Field Labor Hours = 8,355,250 | -- | -- | 579 | -- | 319 | -- | 260 | -- | 8,484 | 100 |

9613470.0940

*Table I-14. Estimates of Occupational Losses per DOE Statistics: Central Plateau - Restricted Future Land-Use Alternative.*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 8,355,250 | 1.73 E-05 | 144 | 7.49 E-06 | 63 | 1.16 E-04 | 966 |

*Table I-15. Estimates of Occupational Losses per BLS Statistics: Central Plateau - Exclusive Future Land-Use Alternative.*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Nonresidential building construction | 154 | 7.10 E-05 | 30 | 3.10 E-05 | 13 | 4.00 E-05 | 17 | 7.17 E-04 | 299 | 10 |
| Heavy construction, except highways | 162 | 6.20 E-05 | 70 | 2.95 E-05 | 33 | 3.25 E-05 | 37 | 7.66 E-04 | 862 | 27 |
| Trucking and warehousing | 42 | 7.25 E-05 | 190 | 4.35 E-05 | 114 | 2.90 E-05 | 76 | 1.18 E-03 | 3,105 | 63 |
| Totals<br>Projected Total Field Labor Hours = 4,200,000 | -- | -- | 290 | -- | 160 | -- | 130 | -- | 4,266 | 100 |

*Table I-16. Estimates of Occupational Losses per DOE Statistics: Central Plateau - Exclusive Future Land-Use Alternative.*

| DOE Category | Projected Total Field Labor Hours | Est. Total Reportable Cases, Rate Per Man-Hour | Est. Total Reportable Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Est. Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 4,200,000 | 1.73 E-05 | 72 | 7.49 E-06 | 31 | 1.16 E-04 | 482 |

*Table I-17. Estimates of Occupational Losses per BLS Statistics: All Other Areas - Restricted Future Land-Use Alternative (R1).*

| Industry Category | SIC Code | Est. Total Cases, Rate Per Man-Hour | Est. Total Cases | Est. Lost Workday Cases, Rate Per Man-Hour | Est. Lost Workday Cases | Estimated Nonfatal Cases | | Lost Workdays, Rate Per Man-Hour | Est. Lost Workdays | % of Work Force |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Without Lost Workdays Rate Per Man-Hour | Without Lost Workdays | | | |
| Heavy construction, except highways | 162 | 6.20 E-05 | 168 | 2.95 E-05 | 80 | 3.25 E-05 | 88 | 7.66 E-04 | 2,081 | 14 |
| Trucking and warehousing | 42 | 7.25 E-05 | 1,210 | 4.35 E-05 | 726 | 2.90 E-05 | 484 | 1.18 E-03 | 19,744 | 86 |
| Totals<br>Projected Total Field Labor Hours = 19,407,071 | -- | -- | 1,378 | -- | 806 | -- | 572 | -- | 21,825 | 100 |

9613470.1942

*Table I-18. Estimates of Occupational Losses per DOE Statistics: All Other Areas - Restricted Future Land-Use Alternative (RI).*

| (1) DOE Category | (2) Projected Total Field Labor Hours | (3) Est. Total Reportable Cases, Rate Per Man-Hour | (4) Est. Total Reportable Cases | (5) Est. Lost Workday Cases, Rate Per Man-Hour | (6) Est. Lost Workday Cases | (7) Est. Lost Workdays, Rate Per Man-Hour | (8) Est. Lost Workdays |
|---|---|---|---|---|---|---|---|
| All DOE and Contractors | 19,407,071 | 1.73 E-05 | 335 | 7.49 E-06 | 145 | 1.16 E-04 | 2,244 |

*Table I-19. Summary of Occupational Losses per BLS Statistics.*

| Geographic Area | Future Land-Use Alternatives | Estimated Total Cases | Estimated Lost Workday Cases | Estimated Nonfatal Cases without lost Workdays | Estimated Lost Workdays |
|---|---|---|---|---|---|
| Columbia River | Unrestricted<br>Restricted | 1,440<br>30 | 810<br>20 | 632<br>10 | 21,621<br>470 |
| Reactors on the River | Unrestricted<br>Restricted (R1)<br>Restricted (R2) | 920<br>670<br>1,730 | 500<br>360<br>980 | 420<br>310<br>750 | 13,280<br>9,490<br>26,260 |
| Central Plateau | Exclusive | 579 | 319 | 260 | 8,484 |
| All Other Areas | Restricted (R1)<br>Restricted (R2) | 290<br>1,380 | 160<br>810 | 130<br>570 | 4,270<br>21,830 |

*Table I-20. Summary of Occupational Losses per DOE Statistics.*

| Geographic Area | Remediation Alternatives | Estimated Total Cases | Estimated Lost Workday Cases | Estimated Lost Workdays |
|---|---|---|---|---|
| Columbia River | Unrestricted<br>Restricted | 350<br>8 | 150<br>3 | 2,370<br>50 |
| Reactors on the River | Unrestricted<br>(UTH)<br>Restricted (R1)<br>Restricted (R2) | 230<br>170<br>420 | 100<br>70<br>80 | 1,560<br>1,120<br>2,820 |
| Central Plateau | Exclusive | 144 | 63 | 966 |
| All Other Areas | Restricted (R1)<br>Restricted (R2) | 72<br>335 | 31<br>145 | 482<br>2,240 |

# Appendix J

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# J.0 Floodplain/Wetlands Assessment

The proposed Hanford remedial action may affect on-site floodplains and wetlands. The proposed action may also affect portions of the Columbia River and Cold Creek floodplains. Federal actions affecting wetlands and floodplains are subject to several laws, regulations, and orders protecting these areas. This floodplain/wetlands assessment identifies the floodplain and wetlands potentially affected by remedial actions at Hanford, the scope of the proposed action, why floodplain/wetlands involvement occurs, alternatives considered, and steps to minimize impacts on floodplains and wetlands. The proposed alternatives summarized in this assessment are described in detail in Chapter 3.0, "Description of Proposed Action and Alternatives," of this environmental impact statement (EIS).

## J.1 Introduction

Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands, require Federal agencies to consider the impact of proposed actions on wetlands and floodplains. The U.S. Department of Energy (DOE) requirements for compliance with Executive Orders 11988 and 11990 is found in Title 10 of the *Code of Federal Regulations,* Part 1022, "Compliance with Floodplain/Wetlands Environmental Review Requirements" (10 CFR 1022). A floodplain/wetlands assessment under 10 CFR 1022 consists of a description of the proposed action, a discussion of its effects on the floodplain and wetlands, and consideration of alternatives.

If it is determined that there is no alternative to implementing a proposed project in a floodplain or wetland, DOE must prepare a brief statement of findings that includes a description of the proposed action, an explanation indicating why the project must be located in a floodplain or wetland, a list of alternatives considered, measures to comply with state and local floodplain protection standards, and a description of steps to be taken to minimize adverse impacts to the floodplain or wetland.

### J.1.1 Floodplains Potentially Affected

A floodplain is defined in 10 CFR 1022 as:

> "...lowlands adjoining inland and coastal waters and relatively flat areas and flood-prone areas of offshore islands including, at a minimum, that area inundated by a 1 percent or greater chance flood in any given year. The base floodplain is defined as the 100-year (1.0 percent) floodplain. The critical floodplain is defined as the 500-year (0.2 percent) floodplain."

For the purposes of this assessment, the extent of the 100-year floodplains of the Columbia River, Yakima River, and Cold Creek was derived from a number of sources including Cushing (1992), USACE (1970), Skaggs and Walters (1981), and DOE (1987). The flows of both the Yakima and Columbia Rivers are regulated by dams located upstream of the Hanford Site, and this flow regulation serves to significantly dampen the 100-year floods. For example, on the Hanford Site, the dam-regulated 100-year flood for the Columbia River only extends beyond the existing riverbed in certain isolated, shallow zones. A 100-year flood would inundate marshy areas located

upstream of the 100-B Reactor and a portion of the low-lying horn of land located downstream of the 100-D Reactor, but it would not be expected to completely inundate the islands in the Columbia River.

The alternatives evaluated in this EIS would not be expected to impact the Yakima River, as none of the Hanford industrial complexes were constructed in the immediate vicinity of the Yakima River. Preliminary characterization efforts indicate that it is unlikely that the Yakima River or the immediate area would require extensive remediation.

Although the 100-year floodplain of the ephemeral Cold Creek has not been mapped, it is possible to draw preliminary conclusions from an effort in 1981 to determine the historical extent of the watershed. At least two distinct segments were described by Skaggs and Walters (1981): an upper reach extends from the headwaters to just south of the 200 West Area, and a lower reach extends from near the confluence with Dry Creek (located on the Fitzner/Eberhardt Arid Lands Ecology [ALE] Reserve) to Horn Rapids on the Yakima River. As the upper reach of Cold Creek enters the Hanford Site, gradients diminish significantly. As a result, the channel becomes braided and interconnected. The floodplain essentially follows State Highway 240 through the Hanford Site. Skaggs and Walters (1981) used conservative values for precipitation events and magnitudes of infiltration, surface roughness, and topographic parameters to provide preliminary estimates of probable maximum flooding conditions for the Cold Creek watershed (a probable maximum flood is larger than a 500-year flood; it is generally considered to be a 500- to 1,000-year flood). Based on the estimate and location of the probable maximum flood, it is possible to estimate the potential impact of Hanford remedial actions on the smaller 100-year floodplain of Cold Creek. It is likely that the 100-year floodplain of Cold Creek would not fall within the boundary of the Central Plateau.

### *J.1.2 Wetlands Potentially Affected*

The *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (USFWS et al. 1989) defines wetlands by the presence of hydric soils, hydrophytic vegetation and wetlands hydrology. Hydric soils are soils with the seasonal high-water table within 2.5 cm (6 in.) of the surface of the ground for at least one week of the growing season. Hydric soils typically experience an oxygen depletion as a result. Hydrophytic vegetation may grow in soils at least periodically depleted of oxygen as a result of water saturation. Hydrophytic vegetation may be able to grow only in wetlands (obligate wetlands vegetation) or may be found in uplands as well (facultative wetlands vegetation). Wetlands hydrology requires permanent or temporary inundation of soils for at least a week during the growing season and the resultant depletion of oxygen. All three conditions must be met for a site to be defined as a wetland.

Wetlands regulated under the *Clean Water Act* (33 USC 1251 et seq.) generally include swamps, marshes, bogs, and similar areas. The Hanford Site has a number of cribs, trenches and cooling water ponds, a few of which support diverse wetlands communities. Because these features serve waste treatment or cooling water functions, they are not regulated under the *Clean Water Act* (33 USC 1251 et seq.) and are not addressed in the scope of this assessment.

Regulated wetlands present on the Hanford Site include several springs and ephemeral seeps as well as irrigation wasteways on the Fitzner/Eberhardt ALE Reserve and Wahluke Slope. Because these areas are outside of the scope of the *Hanford Remedial Action Environmental Impact Statement,* the wetlands present in these areas would not be affected by the remedial alternatives identified in this EIS, and therefore, they are not considered further in this assessment.

Wetlands on the primary portion of the Hanford Site have been identified from several sources, including the National Wetlands Inventory maps (USFWS 1976), Washington Department of Fish and Wildlife priority habitat (WDFW 1993), and *Habitat Types on the Hanford Site: Wildlife and Plant Species of Concern* (Downs et al. 1993). Although wetlands on the Site have not been formally delineated, it is conservatively estimated that there are approximately 1,680 ha (4,151 ac) of wetlands on the Hanford Site (excluding wetlands present on the Fitzner/Eberhardt ALE Reserve and Wahluke Slope). Most Hanford wetlands are found in poorly developed riparian zones along the Columbia River. Because of strong currents, rocky substrate, and widely fluctuating water levels, the Columbia River supports a poorly developed riparian and riverine vegetation community.

Columbia yellowcress (*Rorippa columbiae*), which is a federal candidate (Category 2) and a state endangered species, occurs along the Hanford Reach of the Columbia River. Pacific Northwest Laboratory biologists recently found 18 separate groups of Columbia yellowcress during surveys along the 300 Area shoreline (Brandt et al. 1993). This species is usually found near the water line, and it is often submerged during periods of high water.

## *J.2 Potential Impacts on Floodplains and Wetlands*

The following discussion of the proposed action is based on three of the six geographic areas defined for the Hanford Site by the Future Site Uses Working Group report (HFSUWG 1992): the Columbia River, Reactors on the River, and All Other Areas. The North Slope and the Fitzner/Eberhardt ALE Reserve are not considered in this EIS. The Central Plateau is not included in the floodplain/wetlands assessment because it is likely that the 100-year floodplain of Cold Creek is outside this geographic area, as described above. In addition, West Lake is the only wetland occurring on the Central Plateau and would not be affected by the proposed action or alternatives.

Approximately 5,686 ha (14,051 ac) of the Columbia River floodplain and 8,267 ha (20,427 ac) of the Cold Creek maximum (500-year) floodplain are within the boundary of the proposed action. There are approximately 1,680 ha (4,151 ac) of wetlands within the scope of the proposed action. The majority of these are associated with the Columbia River. This represents 41% of the wetlands on the entire Hanford Site (Figure J-1).

### *J.2.1 Columbia River*

The Columbia River geographic area encompasses the waters of the Columbia River (including groundwater discharged through seeps and springs), effluent discharge pipelines, riverbottom sediments, riverbank sediments, and sediments deposited on islands. The Columbia River geographic area includes 4,400 ha (10,870 ac) of the Columbia River floodplain, 31% of the floodplain on the entire Hanford Site (Figure J-2). The area contains 240 ha (503 ac) of wetlands that constitute 14% of project-wide wetlands and 2% of site-wide wetlands.

*J.2.1.1 No-Action Alternative*. The No-Action Alternative would involve stabilization of contaminated sediments and continuation of the current environmental monitoring and maintenance activities. No remediation would take place. There would be restrictions on access to the riverbank and islands and on activities that could disturb river sediments.

*Figure J-1. Floodplains and Wetlands on the Hanford Site.*

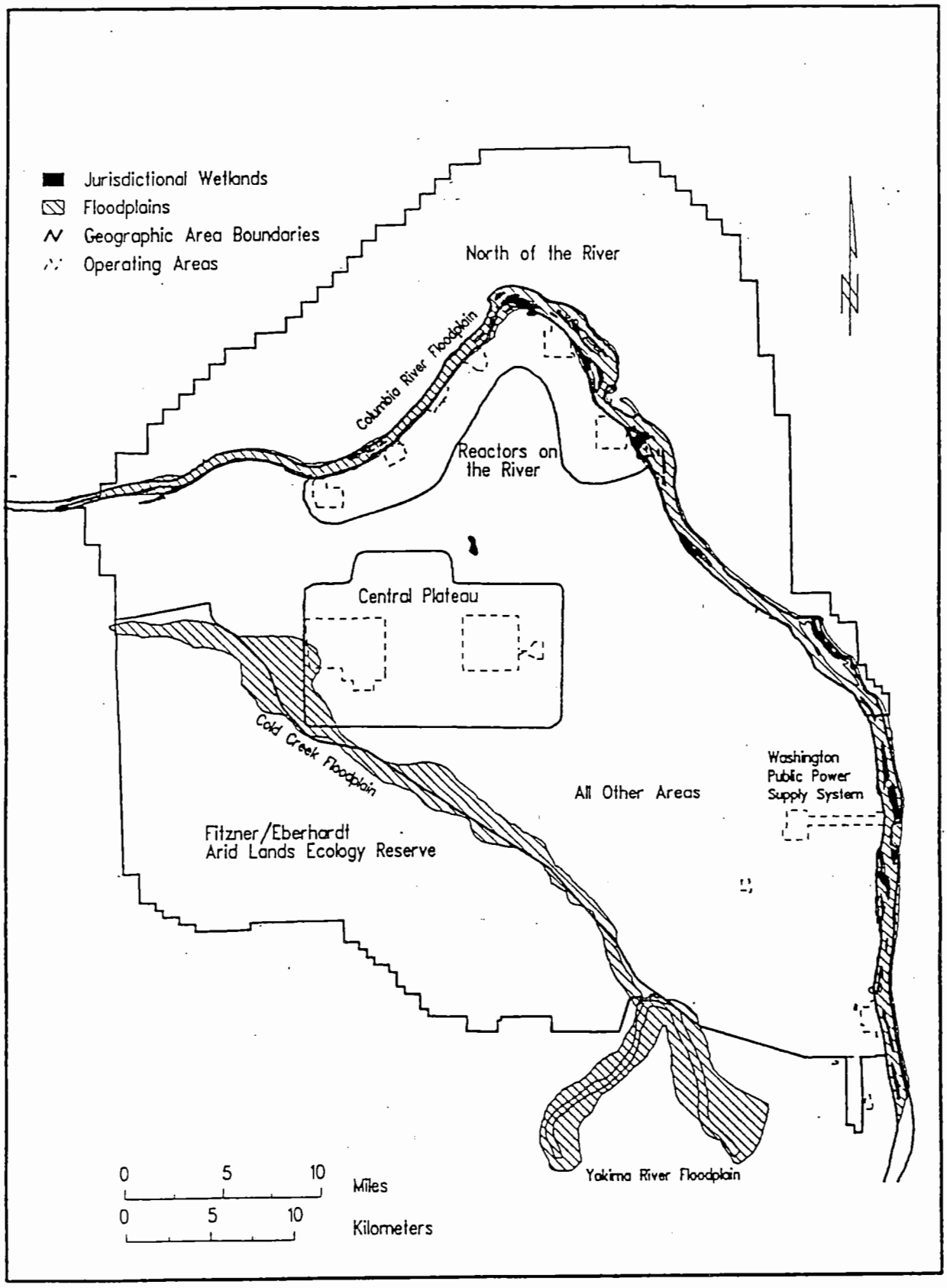

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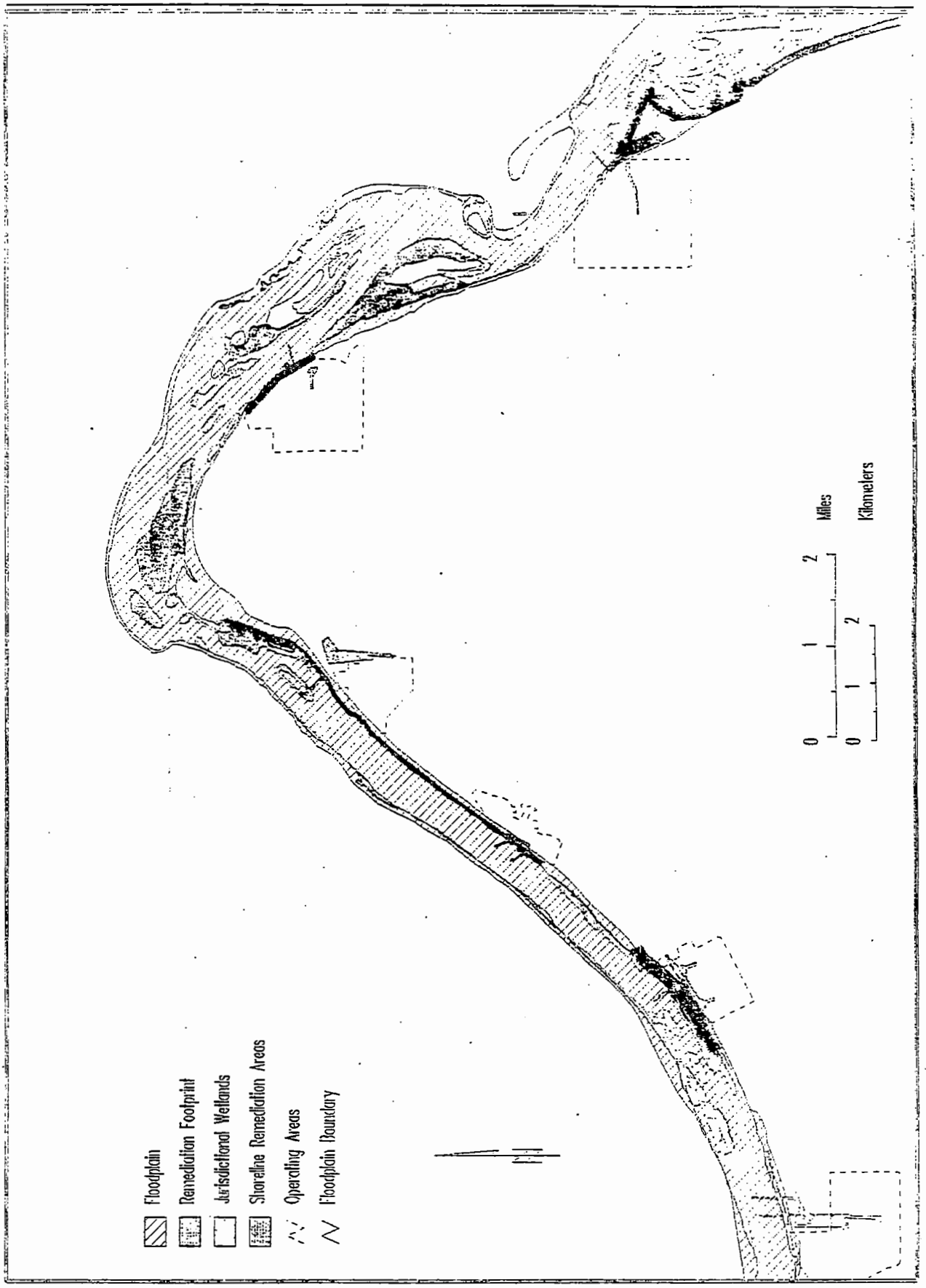
*Figure J-2. Floodplain/Wetlands Impact Areas, Unrestricted Future Land-Use Alternative, Columbia River.*



The No-Action Alternative would not result in any new impacts on floodplains or wetlands. Continued environmental monitoring would not create any adverse impacts. Contaminated sediments, pipelines, and outfalls would be left in place, serving as a potential source of continuing contamination. There would be no loss of wetlands or further intrusion on the floodplain as a result of the No-Action Alternative.

*J.2.1.2 Unrestricted Future Land-Use Alternative*. This alternative involves reducing contamination in the Columbia River to levels allowing unrestricted human use. This would require the excavation of riverbank sediments where groundwater plumes intersect the shoreline. Unrestricted use would also require the excavation of contaminated bottom sediments and contaminated river island sediments and the detection and removal of discrete contamination along the shoreline and islands. Removal of river discharge pipelines and outfall structures would also be required. Remediation for unrestricted use of the Columbia River would involve extensive disturbance of the river shoreline, islands and river bottom (Figure J-2).

*J.2.1.2.1 Floodplain Impacts*. Under this alternative, contaminated sediments along the shoreline, in backwaters, and on islands would be excavated and transported for treatment and disposal. Approximately 17 km (11 mi) of shoreline would be excavated, in some cases as far as 0.18 km (0.1 mi) inland. The Unrestricted Future Land-Use Alternative would affect 140 ha (346 ac) of Columbia River floodplain. This represents approximately 3% of the Columbia River floodplain in the Columbia River geographic area and roughly 2% of the floodplain on the entire Hanford Site (Figure J-2).

In the short term, removal of riverbank sediments could require the construction of a cofferdam around the areas to be excavated. Such a cofferdam would create a constriction in the Columbia River resulting in a slight rise in river level immediately upstream. Changes in stream hydraulics would alter sediment deposition and scouring of sediments in the vicinity of the cofferdams. These changes would be short term, disappearing after removal of the cofferdams. In the long term, excavation of the shoreline would result in the eventual widening of the Columbia River floodplain. Excavation of the shoreline under this alternative could extend as far inland as 0.18 km (0.1 mi) from the river (DOE-RL 1994). As the cut banks subside and assume a one-to-one aspect, the floodplain would be slightly widened. The actual increase in width would be dependent on the depth of the cut. In general, this would be an increase of 11 to 12 m (36 to 40 ft).

*J.2.1.2.2 Wetlands Impacts*. The Unrestricted Future Land-Use Alternative would result in the potential loss of 23 ha (57 ac) of wetlands representing approximately 11% of the wetlands in the Columbia River geographic area (Table J-1). This portion of the river, referred to as the Hanford Reach, has been proposed for designation as a Wild and Scenic River (NPS 1994). This designation of this segment was proposed in part because it is the last significant unimpounded portion of the Columbia River in the United States. The Hanford Reach has also been buffered from human disturbance by the security measures implemented to protect the Site. As a result, the Reach provides a refuge for many sensitive species and unique wetland plant communities. The plants in these communities are not in themselves rare or sensitive, but the associations in which they are found are unique to the Hanford Reach (NPS 1994). Excavation of the shoreline would destroy a significant portion of the wetland and scenic values associated with the Hanford Reach.

*J.2.1.2.3 Potential Significance and Mitigation Measures.* Short-term impacts on the floodplain would be adverse but temporary. Long-term impacts would be minimal. Wetlands impacts of the extent identified are considered significant. The disturbance of up to 17 km (11 mi) of shoreline in an area proposed for designation as a Wild and Scenic River would also be considered significant.

If the Unrestricted Future Land-Use Alternative is implemented the following mitigation actions pertaining to shoreline excavation would be appropriate.

- slope cutbank at a minimum of 3:1 aspect ratio
- rip-rap toe of slope to minimize erosion
- establish suitable native riparian/wetland vegetation on slope
- replace all wetlands altered or destroyed by the proposed action through purchase, construction, or restoration of wetlands. The replacement ratio would be determined in cooperation with the state of Washington, the U.S. Fish and Wildlife Service (USFWS), and the U.S. Army Corps of Engineers (USACE).

*J.2.1.3 Restricted Future Land-Use Alternative.* The Restricted Future Land-Use Alternative would involve stabilizing in-place the river discharge pipelines, removing detached pipeline segments, and continuing institutional controls to prevent human exposures to contamination. Access to potentially hazardous areas and activities that would have the potential to disturb contaminated sediments would be prohibited.

The Restricted Future Land-Use Alternative would continue monitoring of contaminated shoreline, riverbed, and island sediments. No, or limited, excavation would occur, and physical disturbance would be limited to stabilization and limited removal of pipelines. Approximately 7 ha (17 ac) of the Columbia River floodplain and less than 0.4 ha (less than 1 ac) of wetlands would be disturbed by this alternative (Figure J-3). This represents less than 1% of the Columbia River floodplain and wetlands within the Columbia River geographic area (Table J-1). This disturbance is also less than 1% of the floodplain and wetlands on the entire Hanford Site and, thus, is not considered significant.

### *J.2.2 Reactors on the River*

The Reactors on the River geographic area comprises the nine reactors and their immediate environs. The Reactors on the River geographic area is located along the south shore of the Columbia River near the north boundary of the Hanford Site (Figure J-1). Extensive contamination exists on the surface, subsurface, and in the groundwater in some areas. This geographic area includes effluent lines from the reactors to the holding basins and the outfall structures.

The Reactors on the River geographic area encompasses 346 ha (856 ac) of the Columbia River floodplain and 77 ha (191 ac) of wetlands (Figure J-4). The Columbia River floodplain within this area represents 6% of the floodplain site-wide. The wetlands represent 5% and 2% of the wetlands project-wide and site-wide, respectively. Wetlands in this geographic area are generally associated with the Columbia River.

*Figure J-3. Floodplain/Wetlands Impact Areas, Restricted Future Land-Use Alternative, Columbia River.*

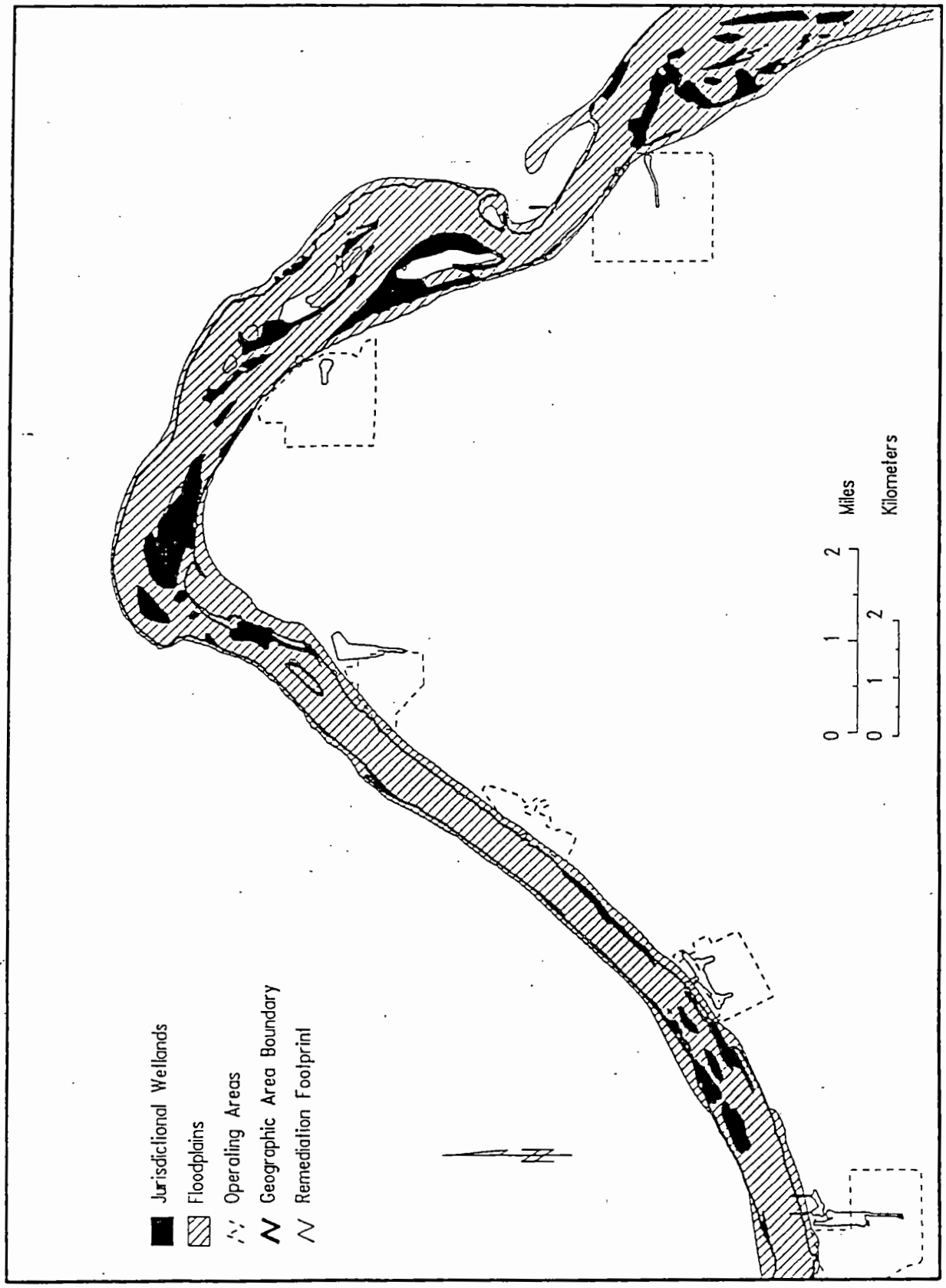


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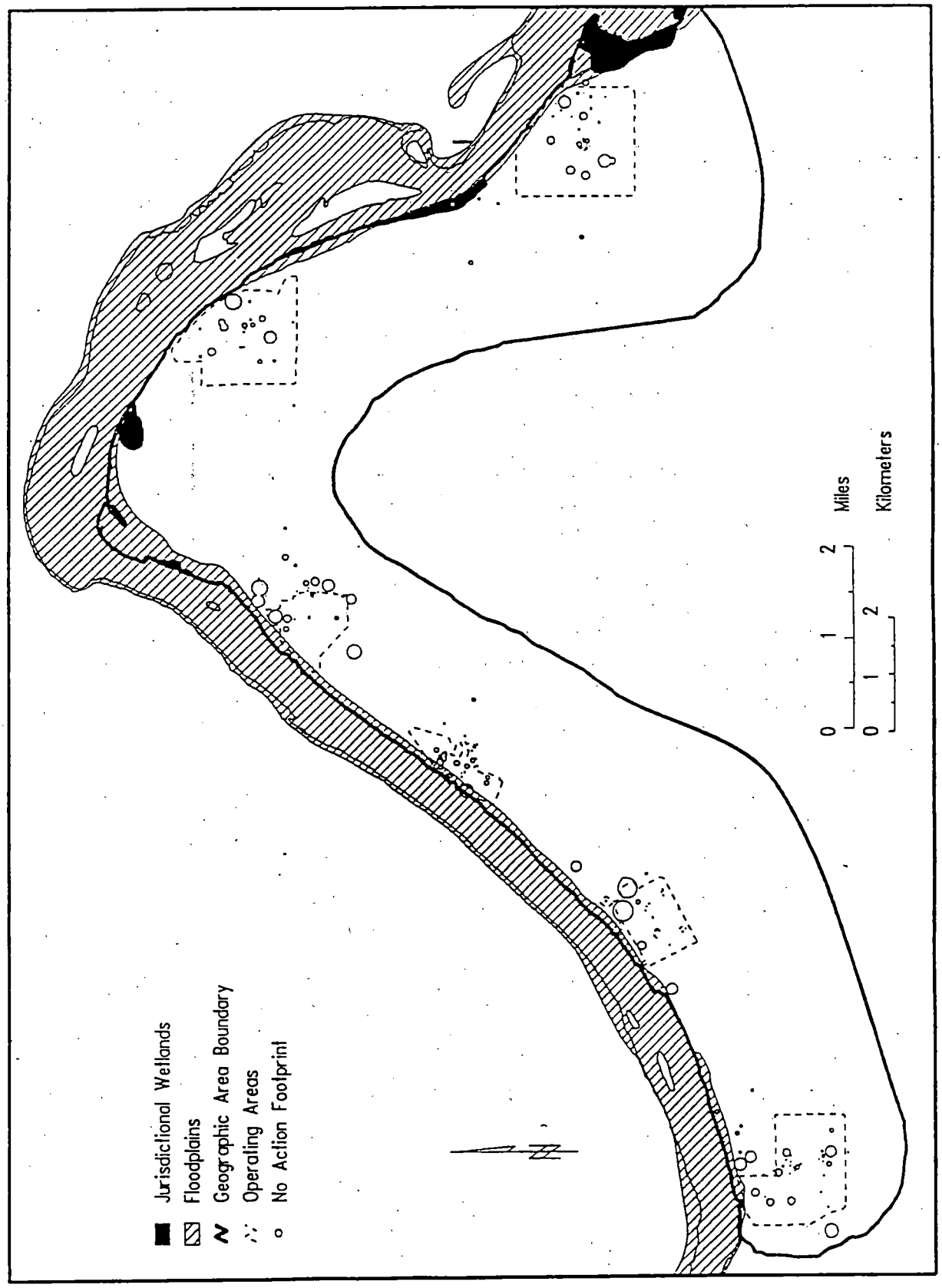
*Figure J-4. Floodplain/Wetlands Impact Areas, No-Action Alternative, Reactors on the River.*



*J.2.2.1 No-Action Alternative.* The No-Action Alternative in the Reactors on the River geographic area would involve surface decontamination and/or stabilization of inactive waste sites an continuation of environmental monitoring and institutional controls. Potential impacts on floodplains and wetlands would be related to waste site stabilization activities. The No-Action Alternative would affect approximately 4 ha (10 ac) of the Columbia River floodplain or roughly 1% of the floodplain within the Reactors on the River geographic area and less than 1% of the floodplain project-wide and site-wide (Figure J-4). Less than 0.4 ha (1 ac) of wetlands would be affected by waste site stabilization activities (Table J-1). This represents approximately 1% of the wetlands in the Reactors on the River geographic area. These impacts are not considered significant.

Potential mitigation actions that would reduce any potential impacts include the following.

- Where appropriate, revegetate disturbed sites with native wetland/riparian vegetation.
- Replace all wetlands altered or destroyed by the proposed action through purchase, construction, or restoration of wetlands. The replacement ratio would be determined in cooperation with the state of Washington, the USFWS, and USACE.

*J.2.2.2 Unrestricted Future Land-Use Alternative.* The Unrestricted Future Land-Use Alternative for the Reactors on the River area would require the removal of contaminants to levels allowing unrestricted human use. Potential impacts on floodplains and wetlands would be related to activities such as excavation of contaminated materials, backfilling excavations, grading, and site stabilization. Approximately 14 ha (35 ac) of Columbia River floodplain would be affected by the Unrestricted Future Land-Use Alternative. This represents roughly 4% of the Columbia River floodplain in the Reactors on the River geographic area and less than 1% of the Columbia River floodplain on the entire Hanford Site (Figure J-5). Approximately 5 ha (12 ac), roughly 6%, of the wetlands in the area would be disturbed by remediation to unrestricted use (Table J-1). This represents less than 1% of the wetlands project-wide and site-wide and, thus, are not considered significant. Potential mitigation measures that would reduce any potential impacts are stated in Section J.2.2.1.

*J.2.2.3 Restricted Future Land-Use Alternative (R1).* The Restricted Future Land-Use Alternative (R1) would involve excavation and removal of past-practice waste sites and effluent pipelines, closure of TSD facilities, decommissioning of surplus facilities, and groundwater remediation, combined with institutional controls. Potential impacts on floodplains and wetlands would be associated with the excavation of contaminated soils, site stabilization, and site restoration activities. This alternative would affect 15 ha (36 ac) of the Columbia River floodplain. This represents approximately 4% of the Columbia River floodplain in the Reactors on the River geographic area and less than 1% of the Columbia River floodplain on the entire Hanford Site (Figure J-6). Approximately 4 ha (10 ac) of wetlands would be disturbed (Table J-1). This represents roughly 5% of the wetlands in the Reactors on the River geographic area and less than 1% of the wetlands site-wide. These impacts are not considered significant. Potential mitigation measures that would reduce any potential impacts are stated in Section J.2.2.1.

*J.2.2.4 Restricted Future Land-Use Alternative (R2).* Remediation to restricted use (R2) would involve capping past-practice waste sites, effluent lines, and TSD facilities, and groundwater remediation, combined with institutional controls. This alternative would affect approximately 9 ha (21 ac) of the Columbia River floodplain (Figure J-7). This represents 2% of the floodplain in the Reactors on the River geographic area and less than 1% of the floodplain on the entire Hanford Site. Approximately 3 ha (9 ac) of wetlands would be disturbed (Table J-1). This represents roughly 4%

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*Figure J-5. Floodplain/Wetlands Impact Areas, Unrestricted Future Land-Use Alternative, Reactors on the River.*

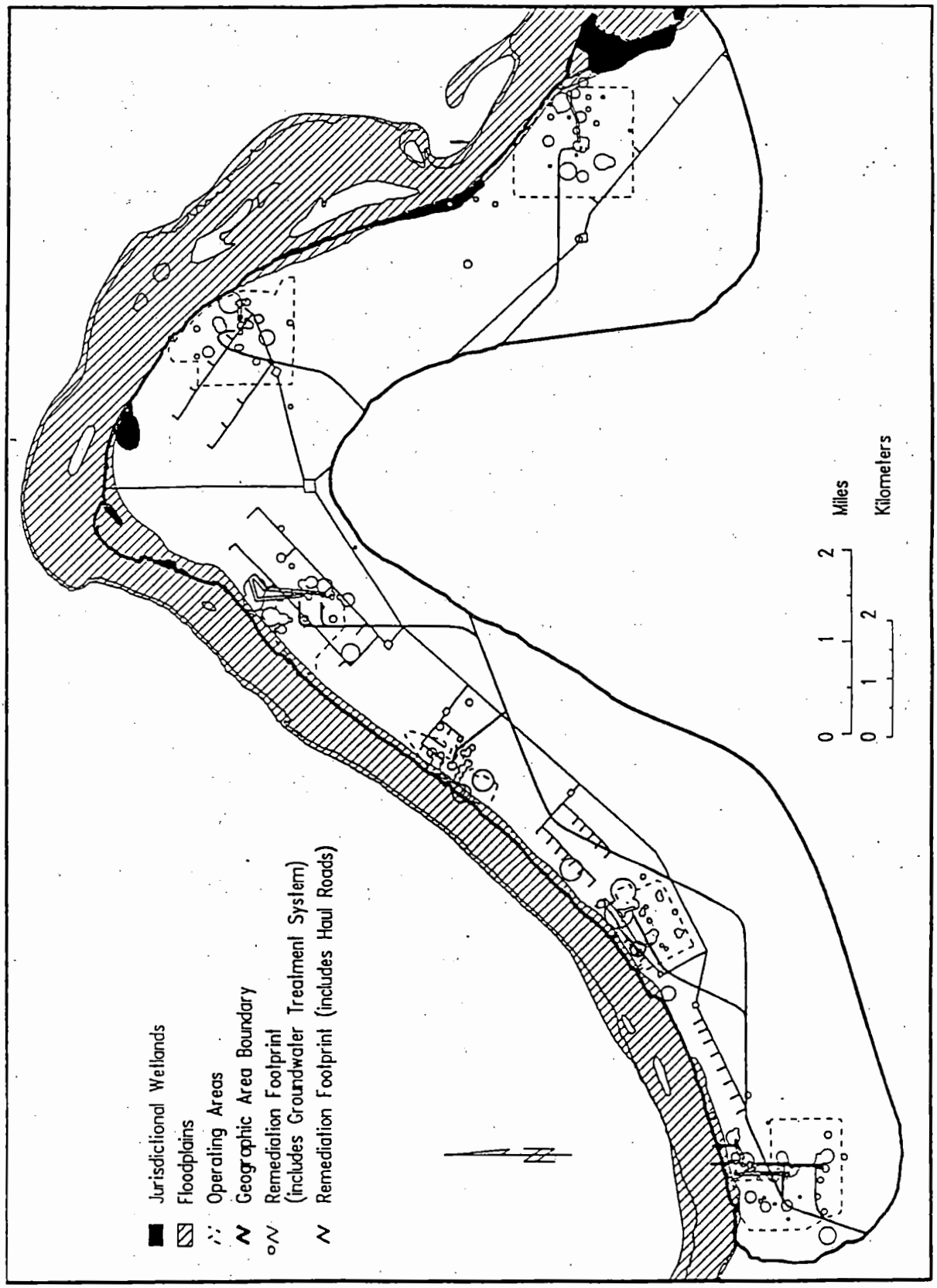

*Figure J-6. Floodplain/Wetlands Impact Areas, Restricted Future Land-Use Alternative (R1), Reactors on the River.*

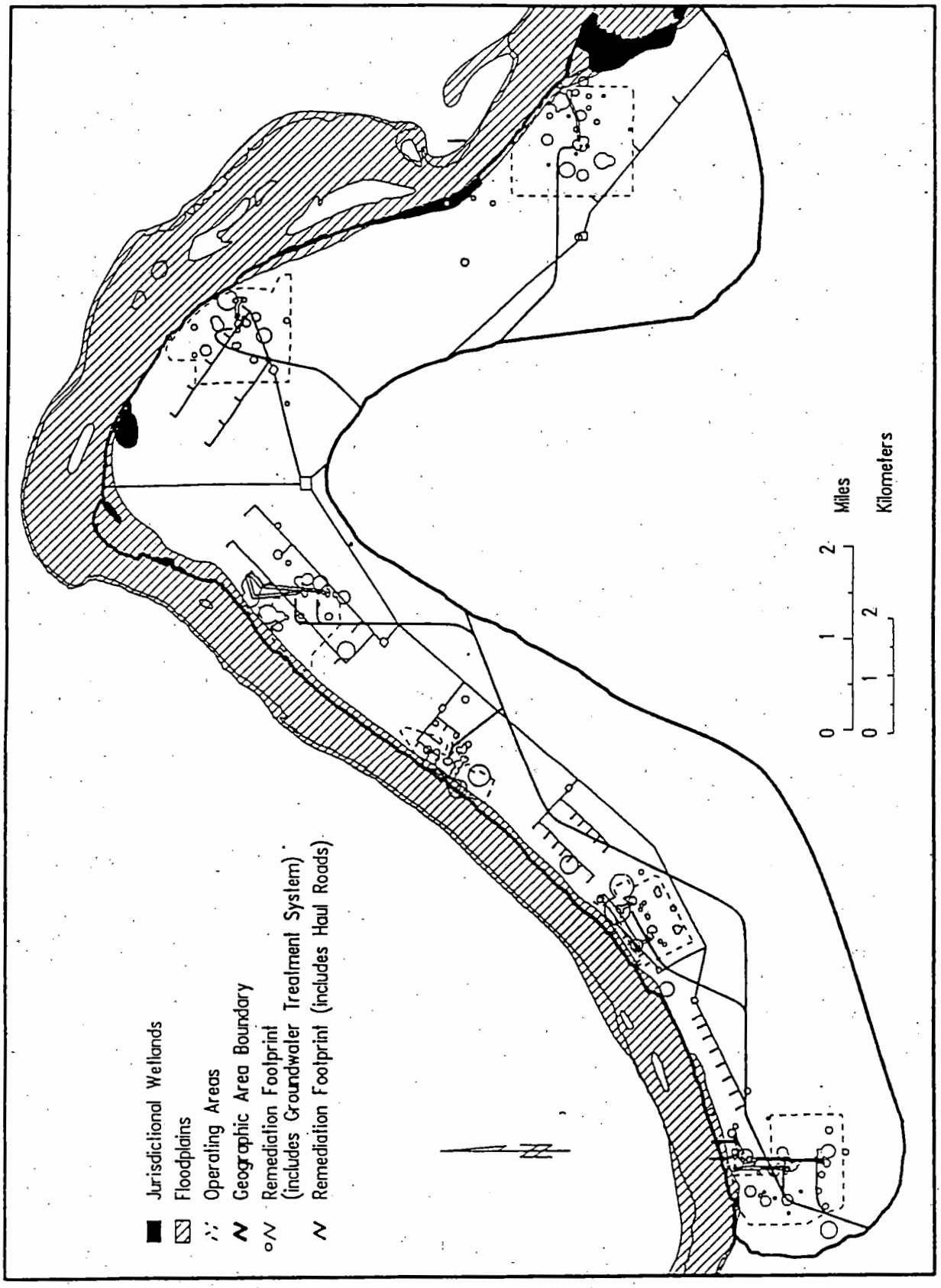

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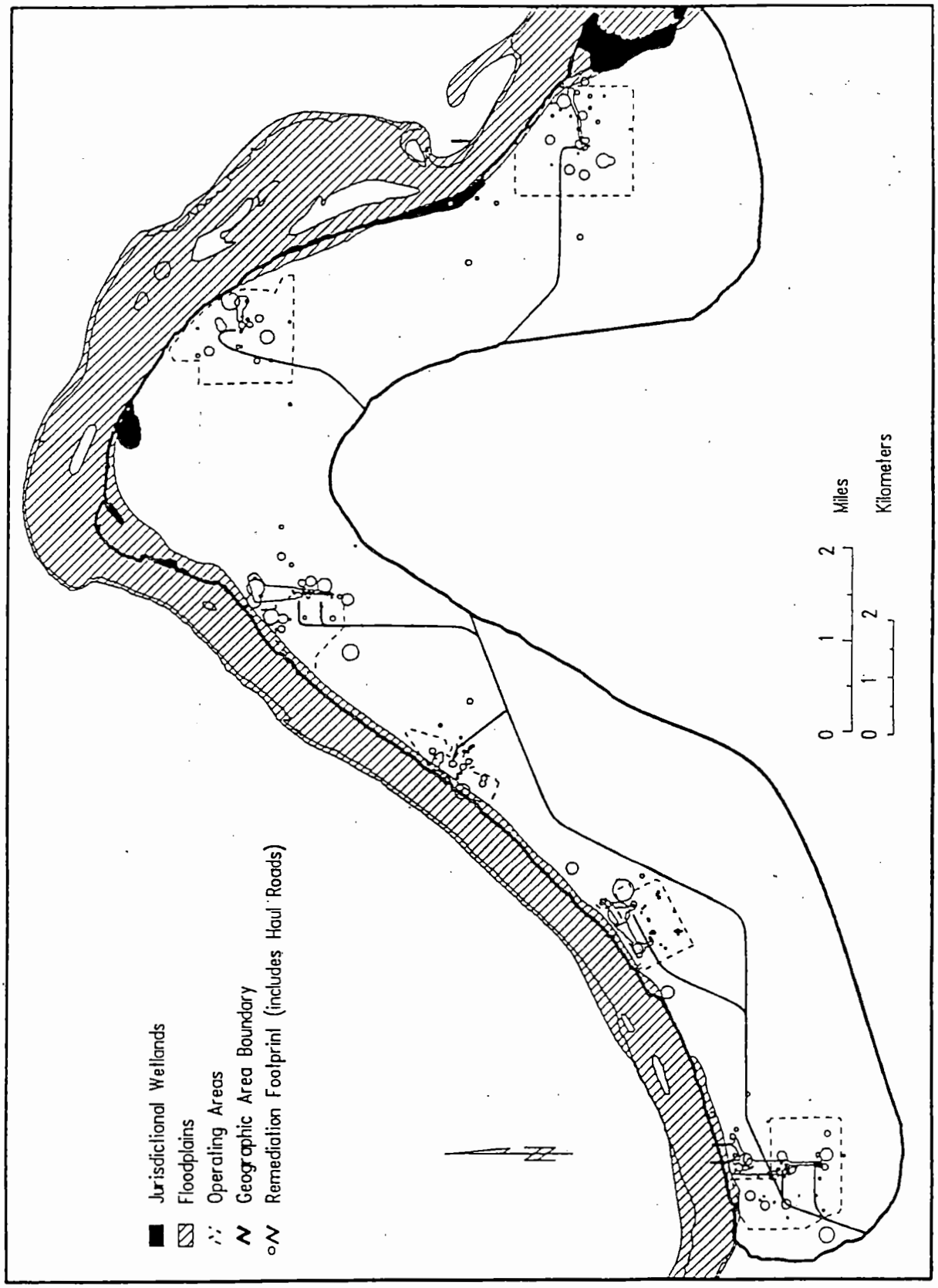
*Figure J-7. Floodplain/Wetlands Impact Areas, Restricted Future Land-Use Alternative (R2), Reactors on the River.*



of the wetlands in the Reactors on the River geographic area, and less than 1% of the wetlands site-wide. These impacts are not considered significant. Potential mitigation measures that would reduce any potential impacts are stated in Section J.2.2.1.

### *J.2.3 All Other Areas*

The All Other Areas geographic area consists of those areas and undisturbed lands not included in other geographic areas. The 300, 400, and 600 Areas (not including the North Slope and the Fitzner/Eberhardt ALE Reserve) are included in All Other Areas. The 300 Area was once part of the fuel fabrication process and was used for research and development. The 400 Area is the site of the Fast Flux Test Facility. The 600 Area encompasses all lands not included in the 100, 200, 300, 400, and 1100 Areas. The Fitzner/Eberhardt ALE Reserve and North Slope are officially part of the 600 Area but they have been separated out for the purposes of this assessment. The 1100 Area, just north of Richland, serves as the central warehousing, vehicle maintenance, and transportation center for the Hanford Site.

This geographic area includes portions of the Columbia River (approximately 384 ha [949 ac]), Yakima River (approximately 71 ha [175 ac]), and Cold Creek (approximately 7 ha [17 ac]) floodplains. Approximately 111 ha (174 ac) of wetlands are associated with the All Other Areas geographic area (Figure J-8).

*J.2.3.1 No-Action Alternative.* Under the No-Action Alternative, potential impacts on floodplains and wetlands would primarily be related to surface decontamination and/or stabilization of past-practice waste sites and TSD facilities. Environmental monitoring would have no impact on floodplains or wetlands. Stabilization of waste sites under the No-Action Alternative would not affect the floodplains of the Yakima River or Cold Creek or any wetlands. This alternative would affect less than 1 ha (2.5 ac) of the Columbia River floodplain. This represents less than 1% of the total Columbia River floodplain within All Other Areas and less than 1/10 of 1% of the total Columbia River floodplain within the boundaries of the Hanford Site (Figure J-8). These impacts are not considered significant.

*J.2.3.2 Restricted Future Land-Use Alternative (R1).* The Restricted Future Land-Use Alternative (R1) would involve excavation and removal of past-practice waste sites and TSD facilities and groundwater remediation, combined with institutional controls. This alternative would not affect wetlands or the Yakima River floodplain. It would affect approximately 10 ha (26 ac) of Columbia River floodplain and 1 ha (2.5 ac) of Cold Creek floodplain. This represents 2% of the Columbia River floodplain and less than 1% of the Cold Creek floodplain within All Other Areas. These impacts represent less than 1% of the total floodplains project-wide and site-wide (Figure J-9). These impacts are not considered significant.

*J.2.3.3 Restricted Future Land-Use Alternative (R2).* Remediation to restricted use (R2) would involve construction of barriers over past-practice waste sites and TSD facilities, and groundwater remediation, combined with institutional controls. The Yakima River floodplain would not be affected by this alternative. Approximately 7 ha (17 ac) of the Columbia River floodplain and 3 ha (7 ac) of the Cold Creek floodplain would be affected. This represents roughly 2% and less than 1/10 of 1% of the Columbia River and Cold Creek floodplains, respectively, within All Other Areas (Figure J-10). Impacts on the Columbia River and Cold Creek floodplains within the Hanford Site boundaries would be less than 1% in both cases. No wetlands would be affected by this alternative. These impacts are not considered significant.

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*Figure J-8. Floodplain/Wetlands Impact Areas, No-Action Alternative, All Other Areas.*

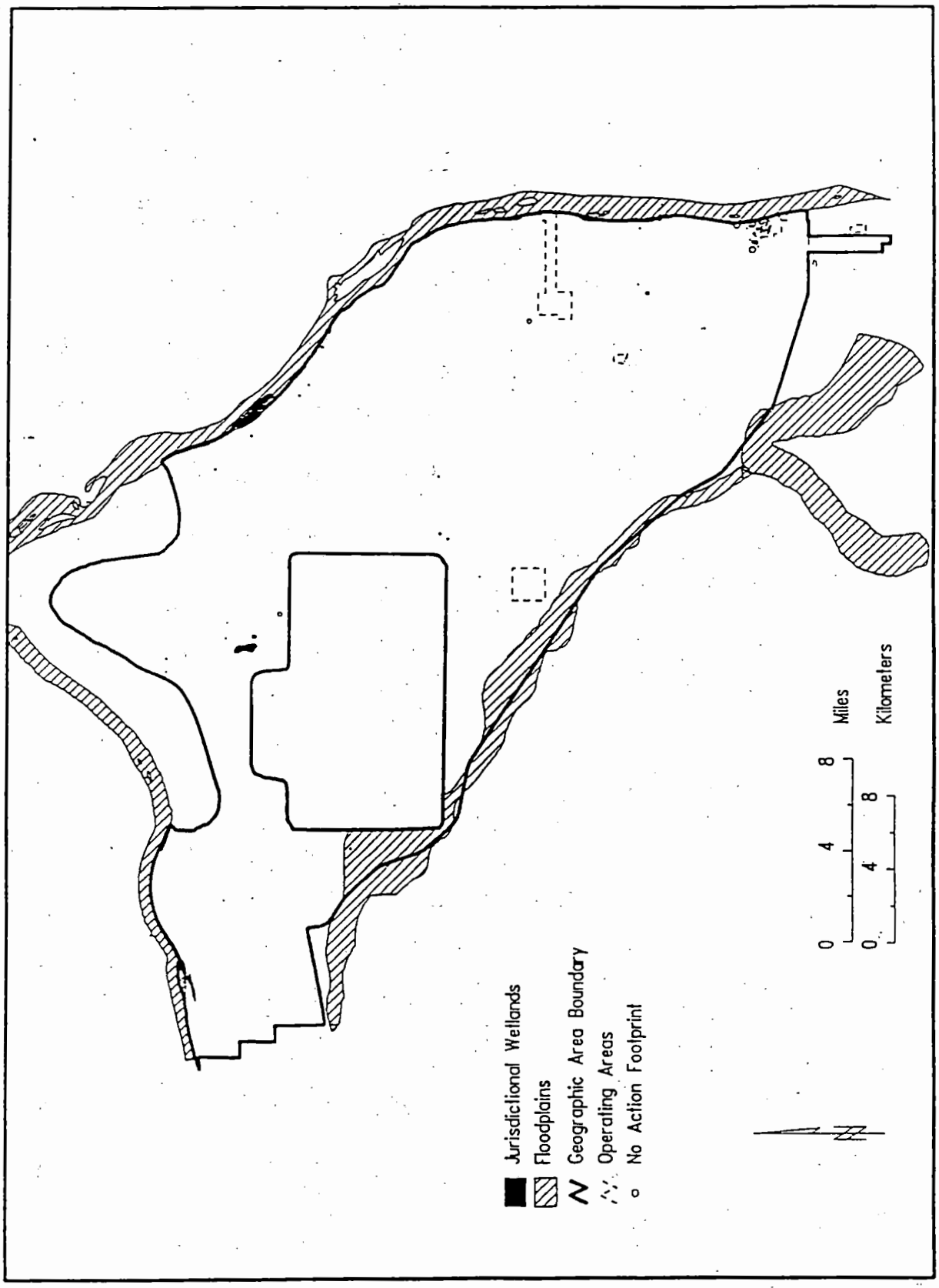


*Figure J-9. Floodplain/Wetlands Impact Areas, Restricted Future Land-Use Alternative (R1), All Other Areas.*

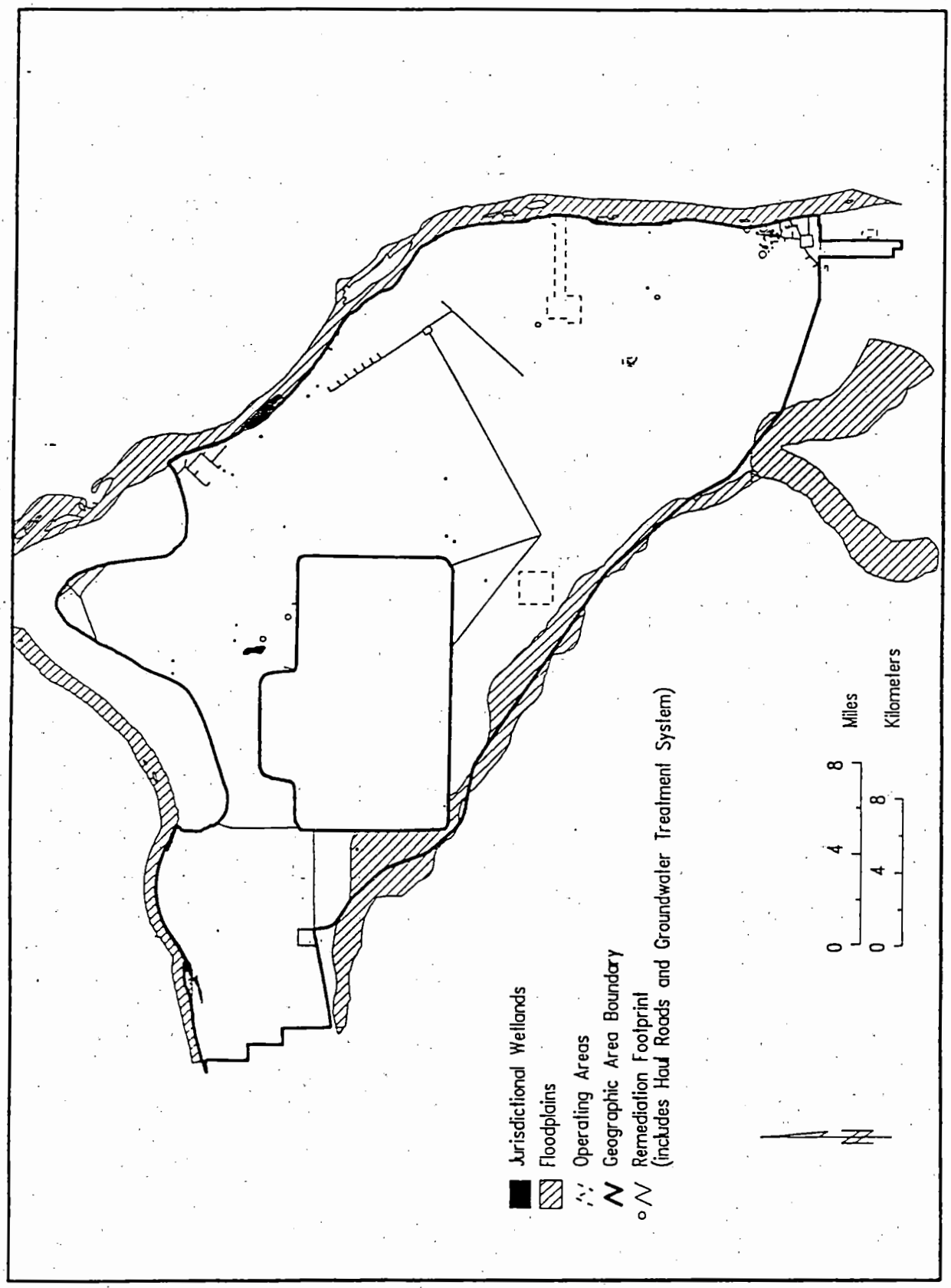
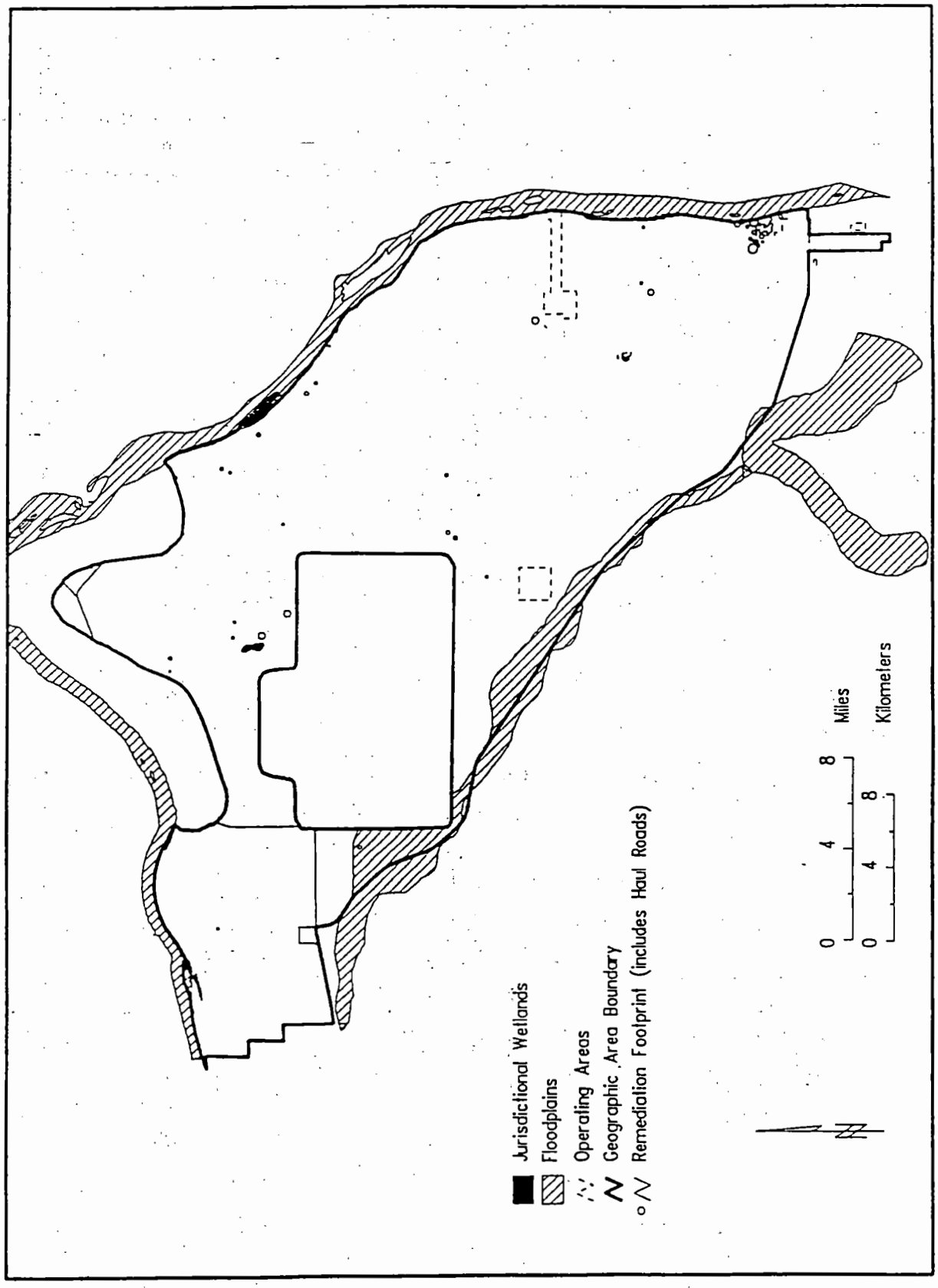


*Figure J-10. Floodplain/Wetlands Impact Areas, Restricted Future Land-Use Alternative (R2), All Other Areas.*



## *J.3 Summary*

Proposed remedial actions at the Hanford Site may affect floodplains or wetlands in three geographic areas: the Columbia River, Reactors on the River, and All Other Areas. The No-Action and Restricted Future Land-Use Alternatives for the Columbia River are not anticipated to significantly affect floodplains or wetlands. The Unrestricted Future Land-Use Alternative would have short-term adverse impacts on the floodplain, but these impacts would be limited to the duration of remedial activities. There would be a minor widening of the Columbia River floodplain over the long term. The Unrestricted Future Land-Use Alternative would have short-term and long-term adverse impacts on wetlands in the Columbia River. These impacts are considered potentially significant and could require mitigation.

Future land-use alternatives for the Reactors on the River and All Other Areas are not anticipated to have any short-term or long-term significant impacts on floodplains or wetlands.

Potential mitigation measures that reduce any potential impacts include the following actions.

- Slope cutbanks at a minimum of 3:1 aspect ratio.
- Riprap toe of slope to minimize erosion.
- Establish suitable native riparian/wetland vegetation on slopes.
- Replace all wetlands altered or destroyed by the proposed action through purchase, construction or restoration of wetlands. The replacement ratio would be determined in cooperation with the state of Washington, the USFWS, and the USACE.

*Table J-1. Wetlands Potentially Affected by the Proposed Hanford Remedial Action.*

| Geographic Area Alternative | Wetlands Affected ha (ac) | % Wetlands Affected Geographic Area | % Wetlands Affected Project-wide | % Wetlands Affected Hanford Site-wide |
|---|---|---|---|---|
| **Columbia River** | | | | |
| No Action | 0 | 0 | 0 | 0 |
| Unrestricted Use | 23 (57) | 11 | 1 | <1 |
| Restricted Use | 0.4 (<1) | <1 | <1 | <1 |
| **Reactors on the River** | | | | |
| No Action | 0.4 (<1) | 1 (2.5) | <1 | <1 |
| Unrestricted Use | 5 (12) | 6 (15) | <1 | <1 |
| Restricted (R1) | 4 (10) | 5 (12) | <1 | <1 |
| Restricted (R2) | 3 (9) | 4 (10) | <1 | <1 |

## *J.4 References Cited in Appendix J*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USFWS, et al., 1989, *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, An Interagency Cooperative Publication: Fish and Wildlife Service, Environmental Protection Agency, Department of the Army, and Soil Conservation Service, U.S. Fish and Wildlife Service, (January).

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