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STATE OF WASHINGTON  
DEPARTMENT OF FISH AND WILDLIFE

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c/o Department of Ecology  
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14 January, 1999

Bryan Foley  
U.S. Department of Energy  
P.O. Box 550 (HO-12)  
Richland, WA 99352



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DOE-RL/DIS**

Dear Mr. Foley:

Subject: Comments on the document titled *200 Areas Remedial Investigation/Feasibility Study Implementation Plan (Plan)-Environmental Restoration Program DOE/RL-98-28, Draft B.*

The Washington Department of Fish and Wildlife (WDFW) appreciates the opportunity to provide comments on the Plan. It is our understanding that this Plan is to define the framework for implementing soil characterization activities in the 200 Areas, and providing direction to be followed in developing group-specific work plans for the 23 waste site groups.

**Protection of the environment**

The WDFW is extremely concerned with the way Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions are proceeding at the Hanford Site. At question is whether remedial actions are, in an overall sense, "protective of the environment," which is one of the nine criteria used to analyze alternatives. We are concerned with the lack of coordination between the U.S. Department of Energy (USDOE) Environmental Restoration Program staff and the federal, state and tribal trustees (CERCLA § 104(b)(2)) with regard to this Plan. In addition, for past remedial actions, the Tri-Parties (i.e. USDOE, U.S. Environmental Protection Agency, and Washington Department of Ecology) have failed to perform adequate environmental evaluations to properly assess threats to the environment while analyzing and selecting remedial alternatives to implement. We have cited below several examples where neither any ecological risk assessment has been performed nor any evaluation has occurred to assess affects from hazardous substance releases to biological receptors. Points raised here are inherent throughout the statutory CERCLA-Executive Order 12580-National Contingency Plan regulation framework. Therefore, we request that dialogue occur between USDOE, the Tri-Parties and the Hanford Natural Resource Trustee Council to address the issue of CERCLA remedial actions being, in an overall sense, "protective of the environment".

Results from a U.S. Fish and Wildlife Service preacquisition survey indicate that several past cleanup efforts by USDOE did not adequately address the criterion of "protection of the environment". The areas identified include the partial de-listing of the 100 National Priority List (NPL) site, i.e. North Slope, and one site in the de-listed 1100 NPL site. These inadequacies can be contributed to: 1) the failure to implement an analogous cleanup approach as described in the applicable remedial documents, and 2) the lack of adequate characterization information. The USDOE did not sample biota that inhabited these waste sites prior to or after completion of the remedial activities. After reviewing the facts from these cleanup efforts and USFWS's findings, we conclude the need for the USDOE and the Tri-Parties to incorporate a biological injury assessment into current and future cleanup activities in the 100, 200 and 300 Area NPL sites. Furthermore, as this plan is intended to provide the framework for soil characterization activities and define injury of that natural resource, we strongly recommend the plan provide the framework for other natural resources (e.g. biota) characterization activities as well.

#### **Establishment of a Biological Injury Assessment**

The WDFW strongly recommends the establishment of a biological injury assessment for the 200 Area NPL site. This assessment would assist USDOE and the Tri-Parties in making better informed remedial decisions, and would accomplish 3 objectives: 1) establishment/confirmation of source-receptor contaminant pathways, and documentation of biological injury by releases of hazardous substances at the 200 Area NPL site, 2) identification of areas of concern for biological receptors, such as undocumented waste sites, and prioritization of the 23 waste site groups for response actions, and 3) establishment of soil cleanup criteria that are protective of the environment and trust resources. These 3 objectives, if addressed, would eliminate redundant cleanup efforts (i.e. reduce total life-cycle costs) of the remediated waste site groups in the future, and are consistent with USDOE's Policy on Integration of Natural Resource Concerns into Response Actions.

The WDFW believes that the best biological injury assessment would be holistic in scope (i.e. the 200 Area NPL site) and achieve the above stated objectives. A less cost-effective approach would be implementation of the assessment by individual waste site groups. If USDOE chooses to implement a less successful alternative (i.e. a waste site group biological assessment), then, we request that each waste site group address our comments stated below on suggestions of what a biological injury assessment should include. However, by approaching this problem by waste site group, the objectives mentioned earlier can not be fully addressed.

Finally, Any biological injury assessment that is developed, whether for the 200 Area NPL site or for each waste site group, should have associated milestones to ensure funding and the success of the selected remedial actions.

#### Quality Assurance Project Plan

In reviewing Appendix A, Quality Assurance Project Plan (QAPP), we noticed the QAPP failed to include a biological injury assessment to characterize wildlife exposure from hazardous substance releases of the 200 NPL site/waste site groups. The USDOE must develop a biological assessment plan as part of the QAPP for the entire 200 Area NPL site to meet the 3 objectives stated earlier. Again, a less successful and more costly approach would be by waste site group. In addition, if USDOE implements this approach, then, we recommend that USDOE develop a biological injury assessment plan for each waste site group data quality objective (DQO) process.

#### Coordination with the Hanford Natural Resource Trustee Council

The biological injury assessment should be developed in close coordination with the Hanford Natural Resource Trustee Council (Council) of which USDOE is a member. In addition, the Council should be involved in the DQO process(es). Finally, the WDFW would like to see this project's staff brief the Council periodically.

The authors of the document failed to recognize or mention the Council, which indicates the lack of understanding and responsibilities by USDOE to coordinate with the Trustees.

#### Data Acquisition

Biological data acquisition could be implemented through a tiered approach. Tiering may include a more exhaustive evaluation inside the fenced areas of the 200 East and West Areas and at known wastes sites extending outside, and a cursory screen outside the 200 Area east and west fences. We suggest the evaluation, at minimum, include indicator species, such as ground beetle species, a small mammal (deer mice), and sentinel nest boxes for starling/kestrels, plants/seeds. We suggest the cursory screen outside the 200 East and West Area fences include, at minimum, sentinel nest boxes for starling/kestrels.

Potential contaminants of concern for analysis should include a sweep for organic carbons, inorganics, volatile organic carbons, aromatic hydrocarbons, semi volatile organics, and radionuclides. Biological endpoints should include contaminant tissue burden, porphyrin profile, hematology, histopathology, etc. The natural resource trustees which includes USDOE and Washington Department of Ecology, the responsible party, and the regulatory agencies have a responsibility to restore the natural resources, and the only way to achieve this objective is by evaluating potential injury to biota.

#### **Conclusion**

In conclusion, the WDFW believes communication between USDOE's project staff and our agency and the Council needs to occur. We strongly recommend the plan provide the framework for other natural resources (e.g. biota) characterization. This framework would establish and implement a biological injury assessment for the 200 Area NPL site/waste site groups and flesh out the biological sampling design in the QAPP and DQO process. The WDFW asks that the Council be participants in the development of a

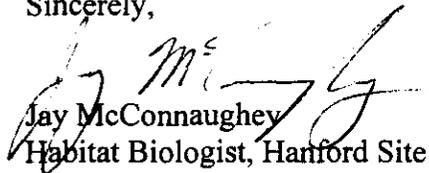
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biological injury assessment and DQO process(es). Finally, specific comments are attached.

Again, thank you for the opportunity to comment. If you have any questions on these comments, please contact me at (509) 736-3095.

Sincerely,



Jay McConnaughey  
Habitat Biologist, Hanford Site

cc:

Hanford Natural Resource Trustee Council

Susan Hughs, Vice-Chair

Teri Elzie, Admin. Sec.

Laura Cusack, Ecology

Ron Skinnarland, Ecology

Ted Clausing, WDFW

Enclosure

**Washington Department of Fish and Wildlife**  
**Specific comments on document DOE/RL-98-28**

**Section 1.1, last sentence of the section.** This statement is incorrect. As our letter on the plan points out, serious flaws have occurred by implementing an analogous site approach. Most of the problem lies with adequate characterization of the waste sites.

**Section 1.2.5, sixth bullet.** We request that the Hanford Natural Resource Trustee Council be members of the team in developing the DQOs.

**Section 2.1.2, page 2-3, first bullet.** For the Tri-Parties to achieve this general objective, specifically with regards to protect the environment, this plan will need to develop a biological injury assessment.

**Section 2.4.5, page 2-22, last paragraph to the header CERCLA.** If waste is left in place, we recommend that an evaluation include sampling biota to ensure the remedy is indeed protective of wildlife.

**Page 2-23, third paragraph, first sentence.** The WDFW is completely confused and troubled by this statement. We thought remedy actions at the Hanford Site were intended to abate, prevent, minimize, or eliminate the threat of a hazardous substance release to the public or environment.

**Section 5.1, Page 5-2, first full paragraph, first sentence.** This statement is incorrect. Two of the land use alternative maps identify some lands within the 200 Areas boundary line as preservation. These 2 alternatives identify the mature shrub steppe habitat west of the central waste complex as preservation. USDOE can not justify the need for designating all the land within the rectangle as shown in figure 5-1 as industrial (exclusive) use. Please correct the text to reflect this fact.