



**U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

National Ocean Service  
Office of Response and Restoration  
Coastal Protection and Restoration Division  
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Seattle, WA 98115 6349

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June 15, 2006

Cliff Clark  
U.S. Department of Energy  
P.O. Box 550, Mailstop A3-04  
Richland, WA 99352

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**EDMC**

Dear Mr. Clark,

We appreciate the opportunity to provide comments on the draft Five-Year Review Report of the Hanford Site prepared by the Department of Energy (DOE) under requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As a natural resource co-trustee with DOE at the Hanford Site, the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) looks forward to continuing to work with the DOE on multiple issues of joint interest and responsibility. We are very interested in working with DOE on habitat improvement projects either as part of cleanup through mitigation, or as restoration through the damage assessment process, or both.

NOAA has several comments on the draft Five-Year Review Report:

1) Protectiveness of Interim Remedies

Based on the June 2001 EPA *Comprehensive Five-Year Review Guidance*, NOAA feels that the appropriate protectiveness finding for the Hanford Site Five-Year Review should be that "Protectiveness cannot be determined until further information is obtained." (EPA 540-R-01-007). Specifically, risk assessment has not been completed for Hanford, and until the risk assessment is complete, it is not possible to determine if the interim remedies are protective. Therefore, at this time, we are not able to make conclusions about the protectiveness of interim remedies, particularly for areas of the river where contaminants may have come to be located.

Since more information (risk assessment) is needed in order to determine protectiveness, the determination of protectiveness should be deferred, and an addendum stating follow-

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up actions and a time frame for addressing information gap should be added to the Five-Year Review Report.

## 2) Protectiveness of Groundwater Remedies

Remedies for groundwater contamination are either not complete or not yet meeting remedial action goals (for example: concentrations of Cr6 in groundwater exceed ambient water quality in wells at the rivers edge). Therefore, it appears that the remedies are not yet protective. NOAA is concerned about ecological risks from the groundwater contamination as well as the DOE reliance on institutional controls.

## 3) Ecological Risk Assessment

NOAA agrees with the Department of the Interior that the current ecological risk assessment approach at Hanford of NPL site specific ecological risk assessments be modified to include a holistic, integrated, Hanford-wide ecological risk assessment.

The Hanford Site is large and complex, which has lead the Tri-Parties to divide the Site into smaller more manageable sections. The Hanford Site has been listed as multiple CERCLA sites (i.e., 100, 200, 300, etc. areas) and each of the areas further subdivided into operable units. While this makes sense from an engineering and logistical standpoint, it does not make sense from an ecological risk assessment standpoint. Just as the Columbia River runs through the entire Hanford Site, we know that contaminants are migrating between sites, and biological organisms including fish, birds, and large mammals readily move among the various areas. We believe it is imperative to integrate the ecological risk assessments in a holistic manner in order to accurately evaluate impacts to natural resources and determine appropriate cleanup alternatives. Contaminants from multiple waste sites and areas have been mobilized resulting in groundwater contamination that in some cases is being released to the Columbia River. A specific constituent (i.e., uranium, chromium, strontium -90, PCBs, etc.) at a single site may not be a risk, but releases to the Columbia River from multiple sources when added together could result in a risk. This scenario would occur, for instance, when young of the year salmonids move down the Columbia River and are exposed to contaminants from the various reactor sites and groundwater from the 200 and 300 Areas. Because there are multiple sites and multiple constituents that can additively or synergistically adversely affect natural resources, the integration of the approximately 50 different risk assessments must be fully considered. These integrated risk assessments could influence and potentially modify cleanup decisions made based on only a series of individual single-contaminant based evaluation. We recommend that a site-wide ecological risk statement be compiled. We also support the re-establishment of a multi-disciplinary, multi-agency work group to develop a strategy for integration.

NOAA looks forward to continuing to work with DOE at Hanford on natural resource and habitat restoration issues. If you have any questions or would like to discuss issues raised in this letter, please contact me at (206)526-6865.

Sincerely,

A handwritten signature in cursive script, appearing to read "Mary Baker".

Mary Baker, Ph.D.

Acting Pacific Coast Branch Chief