



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SEP 13 2001

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

**MEMORANDUM**

**SUBJECT:** National Remedy Review Board Recommendations for the Coeur d'Alene Basin Superfund Site

**FROM:** Bruce K. Means, Chair   
National Remedy Review Board

**TO:** Michael Gearheard, Director  
Office of Environmental Cleanup  
EPA Region 10

**Purpose**

The National Remedy Review Board (NRRB) has completed its review of the proposed Superfund cleanup action to address the Coeur d'Alene Basin Superfund Site in northern Idaho and northeastern Washington. This memorandum documents the NRRB's advisory recommendations.

**Context for NRRB Review**

The Administrator announced the NRRB as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The NRRB furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The NRRB review evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions, and any other relevant factors.

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Generally, the NRRB makes "advisory recommendations" to the appropriate regional decision maker. The region will then include these recommendations in the Administrative Record for the site before it issues the proposed response action for public comment. While the region is expected to give the board's recommendations substantial weight, other important factors, such as subsequent public comment or technical analyses of response options, may influence the final regional decision. The board expects the regional decision maker to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. It is important to remember that the NRRB does not change the Agency's current delegations or alter in any way the public's role in site decisions.

### **Overview of the Proposed Action**

The 166-river mile Bunker Hill/Coeur d'Alene Basin Superfund site encompasses an area spanning two states and affecting two tribal nations. The Remedial Investigation and Feasibility Study (RI/FS) assessed the human health and ecological impacts resulting from historic mining activities and proposed basin-wide remedial alternatives that would achieve protectiveness over an extended time period. Media and chemicals of principal concern include lead and zinc contaminated tailings, sediments, and soil. Due to a combination of cost, schedule and data uncertainty concerns, an incremental approach to implementing necessary remedial actions is proposed.

### **NRRB Advisory Recommendations**

The NRRB reviewed the informational packages supporting this proposal and discussed related issues with EPA and other stakeholders initially on May 21, 2001. EPA continued its deliberations on August 8, 2001. Meeting participants included:

May 21, 2001: EPA (MJ Nearman, Sean Sheldrake, Anne Dailey, Mike Gearheard, Cliff Villa), State of Idaho (Rob Hanson), State of Washington (John Roland), Coeur d'Alene Tribe (Phil Cernera), US Fish and Wildlife Service (Dan Audet)

August 8, 2001: EPA (MJ Nearman, Sean Sheldrake, Anne Dailey, Cliff Villa, Judi Schwarz, Bruce Duncan, Sheila Eckman)

Based on these reviews and discussion the board offers the following comments:

- The region presented a proposed remedy that sets forth an overall approach for addressing contamination within the Coeur d'Alene basin. The region's proposal describes actions to address both human health and ecological risks. The board appreciates the need to consider individual cleanup decisions in a broad, basin-wide context. The board also supports the specific actions proposed to address human health threats from contaminated residential soils, drinking water, dust, and fish. However, with regard to the region's proposal to address ecological risks, given the magnitude of contamination to be addressed within the basin, the significant costs associated with any basin-wide remedial strategy, and the uncertainties involved in predicting the effectiveness of the basin-wide ecological alternatives, the board recommends that the region proceed for now only with the first phase of its proposal. Since this first phase of the basin-wide ecological cleanup is expected to address only a portion of the basin-wide risk, the region should consider this an Interim Action decision.

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A better understanding of the additional work needed to address residual ecological risks in the basin will result from monitoring the success of this first phase of cleanup. The board also recommends that the decision documents explain how the proposed interim actions relate to the long-term, basin-wide goals for ecological protection, and the extent of risk reduction expected to be attained by this first phase of work.

- The region presented information at the meeting describing the types of technologies needed to address various types of source areas as part of the first phase of work. The region also provided examples of how these technologies would be applied to several specific watersheds within the basin. The board recommends that the region more fully detail the options considered for each area of the site to be addressed in the first phase, the estimated costs of such actions, and the decision making process that would be used to match source control technologies with site conditions during implementation of the remedy. This information should be assembled into distinct alternatives that address "first phase RAOs" which could then be more easily evaluated against the NCP's nine criteria. This more detailed information should be included in the decision documents for the site.
- The board supports the region's use of a tiered approach for comparative analysis of alternatives (as presented to the board for the CSM Units 1 through 3) as a good mechanism to communicate differences between alternatives, and to communicate the expected ecological improvement benchmarks to be achieved by the alternatives. For example, the region illustrated how specific, localized cleanup actions along various stream segments contributed to the creation of an adult fishery in reaches of Nine Mile Creek (e.g., specific actions would be needed to establish in certain areas fish nurseries or migration corridors which together provide important support for the adult fishery). The region is encouraged to use similar presentation tools in the site decision documents.
- The board notes that the package presented "preliminary remediation goals" rather than "final cleanup levels" in its discussion of overall cleanup strategy. The board recommends that final cleanup levels be fully developed and described in the decision documents. The board further recommends that these levels be defined such that they are readily distinguishable from "natural background" concentrations during remedy implementation.
- The board notes that the preferred alternative for CSM Unit 5 (located in the State of Washington) is driven by cleanup standards for beaches (soils) which are one-half the levels used in the screening risk assessment for similar, neighboring portions of the site in CSM Unit 4 (located in the State of Idaho). The board recommends that the region provide a clear rationale in the decision documents for the different cleanup standards being used under such similar site conditions and use scenarios.
- The board notes that the soil lead cleanup levels designed to protect human health did not appear to reflect the different exposure patterns associated with the site's various land use scenarios. The decision document should clearly explain the rationale for deciding not to develop cleanup levels specific to local land use. The region may want to consider developing a different cleanup level for commercial and recreational land use where residential land uses are not adjacent and residential levels would not be appropriate.

- Based on the region's experience at the 21 square mile Bunker Hill site (i.e., "the box"), residential soil cleanups for the rest of the basin are likely to reduce blood lead levels significantly on a community-wide basis. However, a few individual homes may require additional lead removal actions. The proposed remedy includes a large contingency for extensive home interior cleaning. The board supports the concept that there may be the need for further actions in some households (beyond the initial cleanup), but encourages the region to take a more flexible approach in the decision documents. Where additional action is warranted, the region should consider a range of options for residence-specific control of lead in soil and dust, beginning with less aggressive (but still effective) methods and progressing to more extensive residential cleaning only where necessary.
- The board notes that the estimated cost of residential soil removal (\$87 million for 1500 properties) is significantly higher than costs for similar actions at other sites. The board recommends that the region re-evaluate the estimated cost of these actions.
- The package does not discuss the potential for reuse of excavated materials in order to reduce disposal costs. The board recommends that the region discuss potential for reuse of such materials in the decision documents and further investigate reuse options during remedial design.

The NRRB appreciates the region's efforts to work closely with the states, tribes, natural resource trustees and community groups at this large and complex site. We encourage Region 10 management and staff to work with their regional NRRB representative and the Region 4/10 Accelerated Response Center in the Office of Emergency and Remedial Response to discuss any appropriate follow-up actions.

Thank you for your support and the support of your staff in preparing for this review. Please give me a call at 703-603-8815 should you have any questions.

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