Appendix A

Second Five-Year Review
Bunker Hill Mining and Metallurgical Complex Superfund Site
Operable Units 1, 2, and 3
Idaho and Washington

Responsiveness Summary

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Contents

Tables

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1 Introduction

The purpose of this Responsiveness Summary is to present the U.S. Environmental Protection Agency's (USEPA's) response to public comments on the Second Five-Year Review for the Bunker Hill Mining and Metallurgical Complex Superfund Site, Operable Units 1, 2, and 3. While a public comment period is not required for five-year reviews, the USEPA felt strongly that given the strong amount of public and stakeholder interest in the site, a public comment period was warranted.

This Responsiveness Summary consists of two sections, as follows:

- **Section 1—Introduction:** This section provides an overview of the public comment history and process
- **Section 2—Comments and Responses:** Provides an overview of the written comments received from the public and various stakeholder groups during the June – July 2005 Public Comment Review of the Draft Five-Year Review Report.

Copies of the written comments received and the USEPA's comment-specific responses were not included in the Appendix to the hard copy of the final report, but are included in the attached CD-ROM. They are also available by one of the following means:

- Visit the USEPA Region 10 website: http://yosemite.epa.gov/r10/cleanup.nsf/bh/five+year+reviews
- Call 1-800-424-2709 to order a hard copy, or
- Visit one of the Site's eight information repositories listed below:

USEPA Seattle Office
Superfund Records Center
1200 Sixth Avenue
Seattle, WA 98101
206-553-4494

Pinehurst Kingston Library
107 Main Avenue
Pinehurst, ID 83850
208-682-3483

Kellogg Public Library
16 West Market Avenue
Kellogg, ID 83827
208-786-7231

Coeur d'Alene Field Office, USEPA
1910 Northwest Boulevard, Suite 208
Coeur d'Alene, ID 83814
208-664-4588

Wallace Public Library
415 River Street
Wallace, ID 83873
208-752-4571

Harrison City Hall
100 Frederick Avenue
Harrison, ID 83833
208-689-3212

North Idaho College Library
1000 Garden Avenue
Coeur d'Alene, ID 83814
208-769-3355

Spokane Public Library
906 West Main Avenue
Spokane, WA 99201-0976
509-444-5336 for reference desk – ask for Dana Dalrymple

Public comment periods are not required for five-year review documents. However, the USEPA elected to provide the public and stakeholders an opportunity to comment on this five-year review report given the strong public and stakeholder interest regarding the Bunker Hill Site. The original public comment period was a 30-day period extending from June 1 to June 30, 2005. Two requests for an extension to the public comment period were received by the USEPA during the public comment period. In response, the USEPA granted a 30-day extension to the public comment period extending the end date to July 30, 2005.

The USEPA has provided venues for public comment throughout the five-year review process. Notification that the USEPA was conducting a site-wide five-year review began in the summer of 2004, followed by periodic updates on the progress of the review and opportunities for public input. Public notification was accomplished through fact sheets, the Coeur d'Alene *Basin Bulletin*, and the USEPA Region 10 website. Direct notification was accomplished via letters, e-mails, and presentations to a number of organizations. Telephone interviews were conducted with county council chairs and with the mayors of the cities and towns within the Bunker Hill Site. During the public comment period, open houses were held at five locations throughout the Coeur d'Alene Basin. The open houses provided opportunities to talk with the USEPA and State of Idaho staff about the five-year review. Forty-five people attended these open houses.

2 Comments and Responses

2.1 Number and Type of Comments Received

In addition to comment period extension request letters from HellerEhrman and the Idaho Congressional Delegation, the following 19 individuals or entities submitted comments:

- Broadsword, Senator Joyce (State Government)
- Bryne, Iris
- Coeur d'Alene Tribe
- Colona, Bob
- Department of the Interior
- Eversole, Gayle
- Hardy, L. Rogers and Antonia (2)
- Harwood, Terry, Basin Commission Executive Director
- HellerEhrman (Hecla)
- Kramer, Charles and Judy
- McCroskey, Robert
- Mihelich, Mike, Kootenai Environmental Alliance
- Miller, Barbara (2)
- A mother
- Panhandle Health District
- Roizen, Ron
- Sierra Club
- Wandrocke, Dick
- Woods, Paul , USGS Water Resources

The authors of comment submittals were organized into the commenter types listed in Table 2-1, which presents the numbers of comment submittals by each commenter type. Individual comments within each submittal were marked and assigned to a specific category (General or OU) and subcategory as shown in Table 2-2. Table 2-2 also lists the number of comments received for each subcategory. Within the 21 comment submittals, 220 separate comments were identified.

2.2 Responses to Comments

As stated earlier, the written comments received and USEPA's comment-by-comment responses were not reproduced in the hard copy of the final report but they are available on the attached CD-ROM. On the CD-ROM, Appendix A includes scanned copies of the comment submittals (letters, cards, faxes, and e-mails) received during the public comment period and the USEPA's responses to those comments. This information is also available on

the EPA Region 10 website and at each of the Site's eight information repositories. You may also request a hard copy of the complete Appendix A from EPA Region 10.

TABLE 2-1

Number of Total Comment Documents Received, Listed by Commenter Type

Commenter Type	Number of Comment Submittals
State Agencies	3
Groups	2
Cards	6
Federal Agencies	3
Mining Company Representatives	1
County Agencies	1
Citizens	5
TOTAL	21

TABLE 2-2

Categories and Subcategories Applied to Comments

Comment Category	Comment Subcategory	Number of Comments
General	Subcategory for General	36
OU1	Blood Lead	5
OU1	Human Health	1
OU1	OU1 ICP	2
OU1	OU1 Right of Ways	1
OU1	Recontamination	1
OU1	Yard Cleanups	3
OU2	Biological Resources	1
OU2	Groundwater	1
OU2	Mine Water	5
OU2	OU2 General	4
OU2	OU2 ICP	4
OU2	Phase I Remedial Actions	21
OU2	Recreational (UPRR)	6
OU2	Surface Water	1
OU3	ARARs	3
OU3	Basin Commission	1
OU3	Biological Resources	1
OU3	Coeur d'Alene Lake	23
OU3	Human Health	4
OU3	Human Health-Recreational	7
OU3	Human Health-Residential	6
OU3	Human Health-Trail of the Coeur d'Alenes	26
OU3	Mine and Mill Sites	21
OU3	OU3 General	14

TABLE 2-2

Categories and Subcategories Applied to Comments

Comment Category	Comment Subcategory	Number of Comments
OU3	OU3 ICP	7
OU3	Recontamination	1
OU3	Repositories	5
OU3	STORET	1
OU3	Surface Water	3
OU3	Surface Water-Monitoring	2
OU3	Surface Water-Water Treatment	3
TOTAL		220

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Comment Period Extension Request Letters and Responses

HellerEhrman LLP

June 9, 2005

Via Email and Facsimile

Michael R. Thorp
mthorp@hewm.com
Direct (206) 389-6200
Direct Fax (206) 515-8990
Main +1.206.447.0900
Fax +1.206.447.0849

42392.0001

Ms. Tamara Langton
U.S. Environmental Protection Agency
ECL-113
1200 Sixth Avenue
Seattle, WA 98101

Re: Bunker Hill Site Wide Second Five Year Review

Dear Ms. Langton:

This firm represents Hecla Mining Company. As you know, EPA Region X recently released its draft Second Five Year Review for the Bunker Hill Site. We understand that comments on the draft are due June 30, 2005. The purpose of this letter is to request a 60 day extension of time in which to provide comments on the Second Five Year Review.

I am sure that Region X realizes that the draft Second Five Year Review is extremely complicated not only because the document itself runs to over 500 pages but the review deals with aspects of three different Records of Decision. As a result, Hecla's analysis of the document and drafting of comments cannot be done in a 30 day period. Therefore, the company is requesting that the comment period be extended an additional 60 days.

I would appreciate your letting us know as soon as possible whether the comment period will be extended. Thank you in advance for your consideration and cooperation.

Very truly yours,

Michael R. Thorp
Attorney for Hecla Mining Company

cc: Elizabeth Temkin
Michael White

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

June 22, 2005

Reply To
Attn Of: ECL-113

Michael R. Thorp
Heller Ehrman LLP
701 Fifth Avenue, Suite 6100
Seattle, WA 98104-7098

Re: Bunker Hill Site Wide Second Five-Year Review

Dear Mr. Thorp:

This letter is in response to your June 9, 2005 letter requesting a 60-day extension to the Bunker Hill Second Five-Year Review Report public comment period. This letter is a follow-up to my June 17, 2005 e-mail on the same.

As mentioned in your letter, comments on the draft report are due to me on or before June 30, 2005. Regrettably, EPA cannot grant an extension to this deadline. Although not required to hold public comment periods for five-year reviews, we are required per statute to complete these reviews within five years after the start of remedial action at a Superfund Site and every five years thereafter as long as hazardous substances remain on site that restrict use. The deadline for completion of this second five-year review of the Bunker Hill Site is September 27, 2005. Extending the comment period beyond June 30 would make it impossible for EPA to meet this deadline.

If you have any questions, please let me know. I can be reached at (206) 553-2709 or at langton.tamara@epa.gov.

Sincerely,

Tamara J. Langton
EPA Region 10 Project Manager
Bunker Hill Second Five-Year Review

cc:
Ted Yackulic, EPA Region 10
Bunker Hill Site File

Tamara Langton
06/17/2005 02:46 PM

To: "Thorp, Michael R." <Michael.Thorp@hellerehrman.com>
cc: Ted Yackulic/R10/USEPA/US@EPA, Cami Grandinetti/R10/USEPA/US@EPA
Subject: Re: Bunker Hill Second Five Year Review

Mr. Thorp:

I apologize for not getting back to you sooner. I've been in the Coeur d'Alene Basin conducting open houses on the five-year review this week, and am just now back in the office this afternoon.

We appreciate your concern, but we cannot grant your request for a 60-day extension to the Bunker Hill Five-Year Review Report public comment period. As you may know, we are not required to hold public comment periods for five-year reviews. We choose to conduct one for this five-year review because of the high level of interest in this Site. We are required, however, to complete this five-year review no later than September 27, 2005. Once the 30-day public comment period ends on June 30, we will be reviewing and considering all comments received, editing the report based on these comments where applicable, and preparing a responsiveness summary. A draft final report and responsiveness summary must be completed by the beginning of August in order for EPA Headquarters and the Department of Justice to have time for their review. We must then have time to incorporate their changes into the final report by the September 27 deadline.

If you have any further questions, please let me know. I will follow this e-mail up in writing next week.

Tamara

"Thorp, Michael R." <Michael.Thorp@hellerehrman.com>

"Thorp, Michael R." <Michael.Thorp@hellerehrman.com>
06/15/2005 10:05 AM

To: Tamara Langton/R10/USEPA/US@EPA
cc:
Subject: Bunker Hill Second Five Year Review

On June 9 we sent a request for an additional 60 days to comment on the draft second five year review. Can you let me know when we might expect to hear from EPA as to our request? Thanks.

Michael R. Thorp | Attorney | HellerEhrman LLP | 701 Fifth Avenue, Suite 6100 | Seattle, WA 98104
tel: +1.206.389.6200 | fax: +1.206.515.8990 | email: michael.thorp@hellerehrman.com | web: www.hellerehrman.com

Larry E. Craig
United States Senator
520 Hart Senate Office Bldg.
Washington, D.C. 20510

Mike Crapo
United States Senator
239 Dirksen Senate Office Bldg.
Washington, D.C. 20510

IDAHO CONGRESSIONAL DELEGATION

C.L. "Butch" Otter
Member of Congress
1711 Longworth House Office Bldg.
Washington, D.C. 20515

June 27, 2005

Ms. Tamara Langton
U.S. Environmental Protection Agency
ECL-113
1200 Sixth Avenue
Seattle, WA 98101

Re: Bunker Hill Mining and Metallurgical Complex Superfund Site
Second Five-Year Review Report Comment Period

Dear Ms. Langton:

Please consider this letter our formal, collective request to the EPA to extend the public comment period on the draft Second Five-Year Review of the Bunker Hill Superfund Site beyond the June 30, 2005 due date.

We are confident that you recognize the draft Second Five Year Review is an extremely complex and lengthy document (over an inch thick). In our assessment, 30 days is not an adequate amount of time for interested citizens to read, understand and comment on the report. We respectfully ask that you extend the comment period an additional 60 days to allow those who wish to comment on this important document enough time to do so.

Thank you for your attention to this important matter.

Sincerely,

Mike Crapo
U.S. Senator

Larry E. Craig
U.S. Senator

C.L. "Butch" Otter
Member of Congress

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

July 1, 2005

Reply to
Attn of: ECL-113

The Honorable C.L. "Butch" Otter
House of Representatives
1711 Longworth House Office Building
Washington, D.C. 20515

Re: Bunker Hill Mining and Metallurgical Complex Superfund Site
Second Five-Year Review Report Comment Period

Dear Congressman Otter:

I am writing in response to the Idaho delegation's June 27, 2005 letter requesting a 60-day extension to the public comment period for the Bunker Hill draft Second Five-Year Review Report. We received your letter via facsimile on June 28, 2005.

The public comment period was scheduled to end June 30, 2005. For reasons explained below, we respectfully deny your request for a 60-day extension; however, we will extend the comment deadline through July 29, 2005 so that the public has additional time to review and comment on this draft report.

In considering your request for a 60-day extension, it is important to note that a five-year review is not considered a formal decision-making process. Rather, as mandated by Congress through the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), we are required at least every five years from the initiation of on-site cleanup actions to review the status of the selected remedy and determine whether the remedy is attaining the expected level of protection of human health and the environment. As appropriate, five-year reviews include recommendations to adjust remedy implementation to assure the protectiveness is achieved. However, a protectiveness determination that points to the need for an actual change in the remedy itself would, consistent with CERCLA and the National Contingency Plan (NCP), lead to a separate remedy modification/selection process, which would at least be subject to separate public notice and, depending upon the nature of the remedy modification(s), would require public review and comment.

In conjunction with the above consideration, it is worth noting that EPA is not required to, and routinely does not, solicit public comment on five-year review documents. In this case, however, we designated a 30-day public comment period as part of our continuing efforts to involve the public at the Bunker Hill site. For many months, we have been providing advanced notice to stakeholders regarding the impending availability of the draft document for review and comment. Notice was given via the Coeur d'Alene Basin Bulletin, fact sheets, letters and post cards, e-mails, web sites, newspaper advertisements, telephone interviews and presentations to

various organizations. In mid-June, we held five separate open houses at locations throughout the Coeur d'Alene Basin to facilitate review of and comment on this admittedly large document. These public open houses were attended by a total of only 45 people despite widespread publicity regarding this additional opportunity for information and input. While attorneys for the Hecla Mining Company requested an extension to the public comment period, we have not received an extension request from any member of the general public.

To meet our statutory deadline, we must complete the five-year review by September 27, 2005. At this point, any extension to the public comment period jeopardizes our ability to meet this deadline. Balancing the discretionary nature of public comment in this instance and the looming statutory deadline, I cannot grant your request for a 60-day extension. However, in deference to the delegation, despite the increased risk that we will miss a statutory deadline, we will commit to considering all comments received through July 29, 2005. Even beyond this new deadline, we will accept and respond to all comments, and, to the extent we are not able to incorporate a comment into the final version of this current five-year review report, we will take them into account in conducting the next five-year review.

We appreciate your continuing interest in the cleanup of Bunker Hill and the Coeur d'Alene Basin. If you have further questions or concerns, your staff can contact Tamara Langton at 206-553-2709 or at langton.tamara@epa.gov.

Sincerely,

Daniel D. Opalski, Director
Office of Environmental Cleanup

cc: The Honorable Mike Crapo
The Honorable Larry E. Craig
Mark Compton, Office of Congressman Butch Otter
Stefany Bales, Office of Senator Crapo
John Martin, Office of Senator Craig
Marianne Deppman, EPA Region 10 Congressional Liaison
Tamara Langton, EPA Region 10

Senator Joyce Broadsword

Letter - S3. Signatory - Joyce Broadsword.

US EPA
Region 10

Dear Sirs;

S3-1 Thank you for the opportunity to comment on the second five year review of the Bunker Hill Superfund site. As the state senator for the affected area, I understand the importance of receiving comments. It is my hope that you will take the comments collected from the public and give them due credence.
I did not receive my copy of the review until the 6th of June. It is a complex document that takes considerable thought and 3 weeks is not
really enough time with my busy schedule to be thorough. A few
thoughts are below:

S3-2 Section 3 tables 3-11 and 3-12 show where the short term the cleanup is effective but long term may not be and will require additional monitoring.
My point is that we (U.S. tax payers and mining companies) are paying for this cleanup and the expectation is that the cleanup be thorough enough to assure we do not have to go back and do it again. My concern relates to where recontamination is expected from hillsides into some of the yards that were cleaned. The engineering and dirt work to the hillsides should have prevented recontamination from all precipitation risks. To require additional monitoring, proves to me that the work was not well thought out in this instance.
The tables mentioned are too subjective.

S3-3 Section 5 table 5-49. The timeline to 2033 seems to be longer than is necessary to minimize the impact to humans and the environment. (I am always bothered when humans are separated from the environment) Geological and meteorological events have a bigger impact on the environment than humans.

S3-4 There seems a tendency to extend the job here by keeping a long term calendar and not

1

Response to Comment S3-1

Thank you for your comment letter. Please be assured that we have and will continue to fully consider comments from the public and their elected officials. The final report reflects changes made based on comments received during the public comment period.

We also agree that the draft report was a complex document, and considerable time was required to review and provide comments. The original 30-day comment period was based on meeting the September 27, 2005, statutory deadline for completion of the review and report. Upon request, and approval from the USEPA Headquarters, we extended the public comment period an additional 30 days to July 30, 2005. We will carefully consider the time necessary for public review and comment during the next five-year review.

Response to Comment S3-2

The USEPA and the State of Idaho have completed a number of actions to stabilize hillsides adjacent to residential yards. Sections 3.2.1.1, 4.3.1, and 4.3.14 of the five-year review report provide information on these actions. The remedial actions selected for the Site, however, do not include the complete removal of contaminants from the Site. Therefore, remediated areas such as residential areas and hillsides will continue to be monitored over time to ensure that the remedy is performing as designed. Per the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(c), the USEPA is required to review remedial actions that result in hazardous substances, pollutants, or contaminants remaining onsite at least once every five years. The purpose of this review is to determine if the remedy is or will be protective of human health and the environment.

focusing on the primary contamination. I can see that the cleanup is long term since the geological impact of having a massive sulfide deposit located in this region is the primary cause of the environmental hazard. Government (EPA) sanctioned jobs are great for the local economy as long as they last, but this is not doing the environmental objective of removing/reducing/eliminating the biological hazards. S3-4

The maps in the report are helpful in explaining the affected areas. Photographs, of before and after work, would be helpful in future documents. S3-5

The smelter issues are different from the mining issues. Unfortunately, the cleanup is overall and many of the mining issues are extending the cleanup beyond what is necessary. S3-6

I am sure that with more time and someone who was on the ground to explain some of the finer points to me, that I could come up with other comments. Again, thank you for allowing public comment and should you need to contact me, my address is below. S3-7

Senator Joyce Broadsword
PO Box 76
Cocolalla, ID 83813
208-263-7735

Response to Comments S3-3 and S3-4

The 2002 interim Operable Unit 3 (OU3) Record of Decision (ROD) and the administrative record that supports the OU3 ROD, document the widespread presence of mine waste contamination throughout OU3. In addition, the OU3 ROD indicated that the selected remedial actions would not fully address environmental and human health risks posed by this contamination. The OU3 ROD also identified an adaptive management strategy or incremental approach to implement the ROD. Given the magnitude and widespread extent of the contamination, the interim OU3 ROD provides for a 30-year cleanup plan. After the OU3 ROD is implemented and for each five-year review, the USEPA will evaluate the effectiveness and protectiveness of the cleanup. The referenced table is the schedule for the Basin Environmental Monitoring Plan (BEMP) (this table is now Table 5-58 in the final five-year review report.). The 30-year implementation plan for the BEMP reflects the 30-year implementation period for the OU3 ROD. The monitoring program is critical to the successful implementation and evaluation of the OU3 Selected Remedy. A key goal of the BEMP is to monitor and evaluate progress of the cleanup remedy in terms of improving the ecosystem conditions.

Response to Comment S3-5

We are glad you found the maps useful. We agree that before and after photographs are helpful and will consider including them in future documents.

Response to Comment S3-6

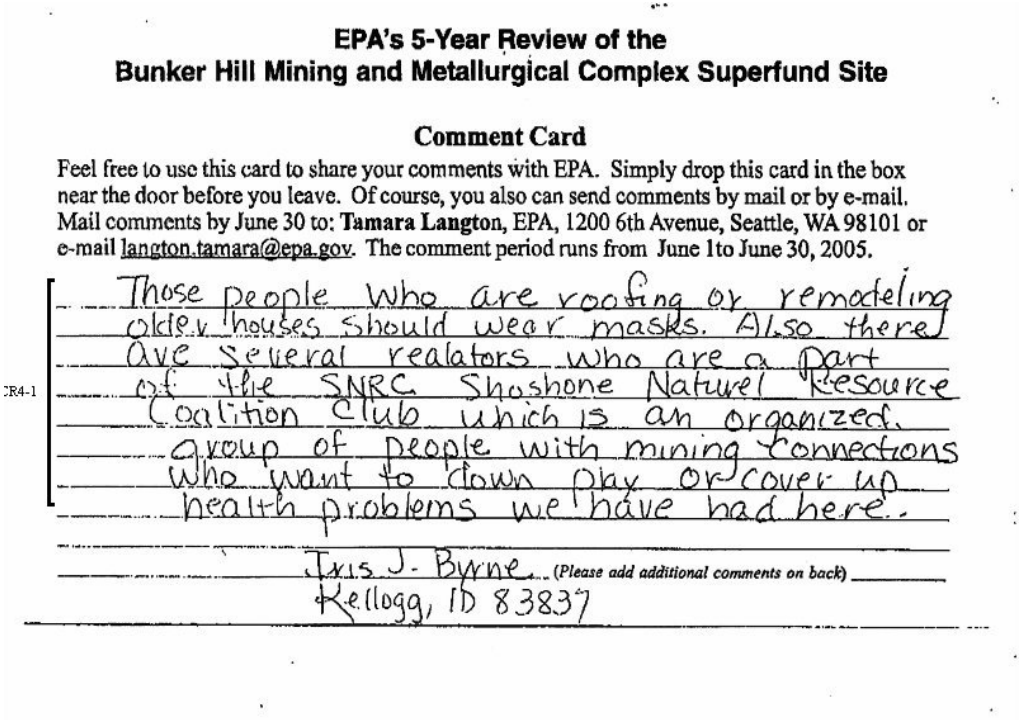
See response to comments S3-3 and S3-4.

Response to Comment S3-7

Again, thank you for your comment letter. If you have any further questions, please feel free to contact Tamara Langton at (206) 553-2709.

Iris Bryne

Letter - CR4. Signatory - Iris Bryne



EPA's 5-Year Review of the
Bunker Hill Mining and Metallurgical Complex Superfund Site

Comment Card

Feel free to use this card to share your comments with EPA. Simply drop this card in the box near the door before you leave. Of course, you also can send comments by mail or by e-mail. Mail comments by June 30 to: **Tamara Langton**, EPA, 1200 6th Avenue, Seattle, WA 98101 or e-mail langton.tamara@epa.gov. The comment period runs from June 1to June 30, 2005.

CR4-1 Those people who are roofing or remodeling older houses should wear masks. Also there ave several realators who are a part of the SNRC Shoshone Natural Resource Coalition Club which is an organized group of people with mining connections who want to down play or cover up health problems we have had here.

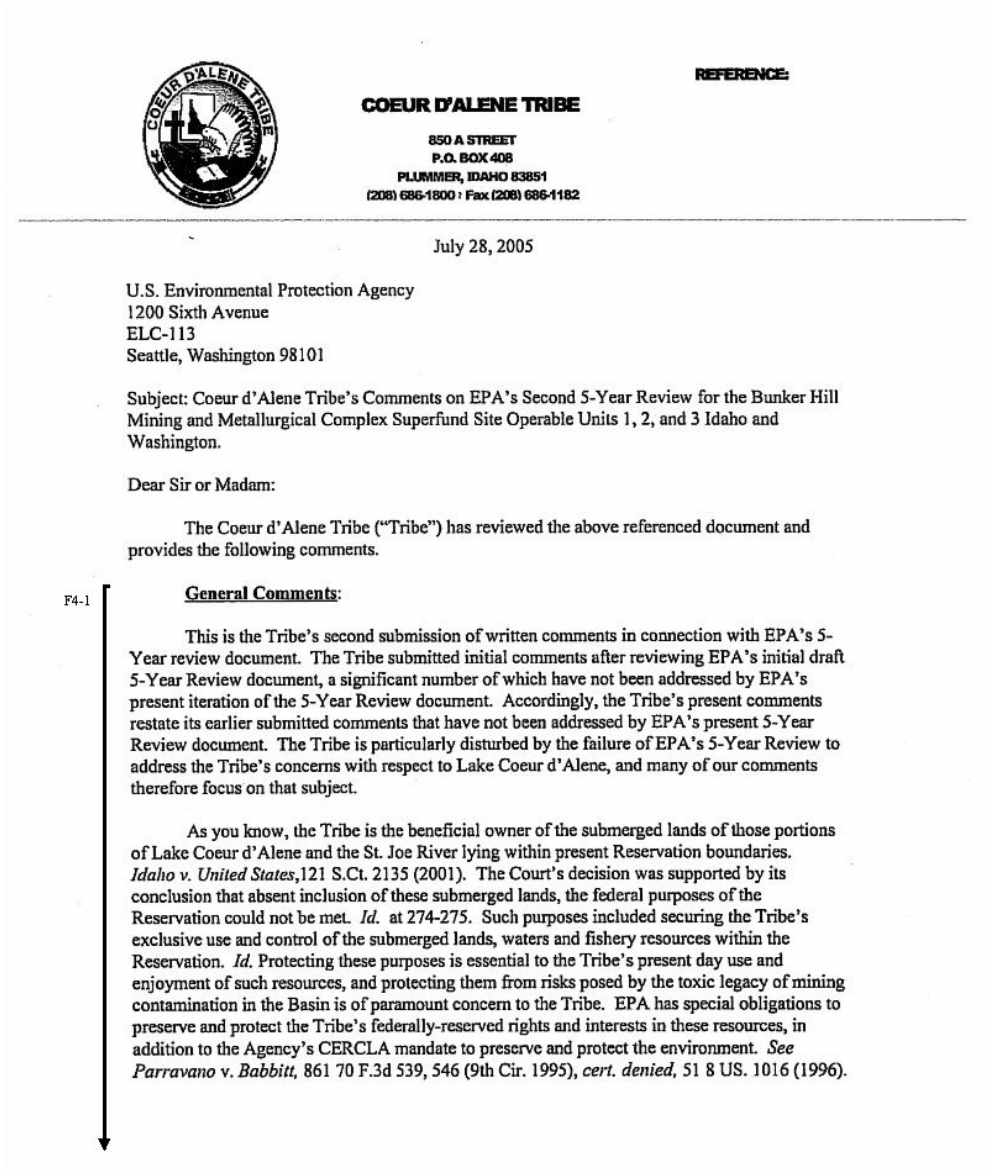
Iris J. Byrne (Please add additional comments on back)
Kellogg, ID 83837

Response to Comment CR4-1

There are no Institutional Controls Program (ICP) requirements for roofing. There are ICP requirements, however, for interior ceiling work where an attic is exposed. The local ICP program, run by the Panhandle Health District, has health and safety information, as well as limited equipment to borrow for these types of projects.

Coeur d’Alene Tribe

Letter - F4. Signatory - CDA Tribe



REFERENCE:

COEUR D'ALENE TRIBE

850 A STREET
P.O. BOX 408
PLUMMER, IDAHO 83851
(208) 686-1800 ; Fax (208) 686-1182

July 28, 2005

U.S. Environmental Protection Agency
1200 Sixth Avenue
ELC-113
Seattle, Washington 98101

Subject: Coeur d'Alene Tribe's Comments on EPA's Second 5-Year Review for the Bunker Hill Mining and Metallurgical Complex Superfund Site Operable Units 1, 2, and 3 Idaho and Washington.

Dear Sir or Madam:

The Coeur d'Alene Tribe ("Tribe") has reviewed the above referenced document and provides the following comments.

F4-1

General Comments:

This is the Tribe's second submission of written comments in connection with EPA's 5-Year review document. The Tribe submitted initial comments after reviewing EPA's initial draft 5-Year Review document, a significant number of which have not been addressed by EPA's present iteration of the 5-Year Review document. Accordingly, the Tribe's present comments restate its earlier submitted comments that have not been addressed by EPA's present 5-Year Review document. The Tribe is particularly disturbed by the failure of EPA's 5-Year Review to address the Tribe's concerns with respect to Lake Coeur d'Alene, and many of our comments therefore focus on that subject.

As you know, the Tribe is the beneficial owner of the submerged lands of those portions of Lake Coeur d'Alene and the St. Joe River lying within present Reservation boundaries. *Idaho v. United States*,121 S.Ct. 2135 (2001). The Court's decision was supported by its conclusion that absent inclusion of these submerged lands, the federal purposes of the Reservation could not be met. *Id.* at 274-275. Such purposes included securing the Tribe's exclusive use and control of the submerged lands, waters and fishery resources within the Reservation. *Id.* Protecting these purposes is essential to the Tribe's present day use and enjoyment of such resources, and protecting them from risks posed by the toxic legacy of mining contamination in the Basin is of paramount concern to the Tribe. EPA has special obligations to preserve and protect the Tribe's federally-reserved rights and interests in these resources, in addition to the Agency's CERCLA mandate to preserve and protect the environment. *See Parravano* v. *Babbitt*, 861 70 F.3d 539, 546 (9th Cir. 1995), *cert. denied*, 51 8 US. 1016 (1996).

Response to Comment F4-1

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(c) requires the USEPA to perform a review of remedial actions that result in hazardous substances, pollutants or contaminants remaining at the site at least every five years. The purpose of the review is to assure the remedial actions are protective of human health and the environment.

All comments that were received on earlier drafts of the report were reviewed, and if relevant to the five-year review, resulted in the USEPA providing written responses and/or corrections or clarifications in the final five-year review report. Comments that were not relevant to the five-year review process or report were not addressed in the five-year review report or this responsiveness summary.

The purpose of a five-year review is not to change the selected or deferred remedies in records of decision (RODs). The Operable Unit 3 (OU3) ROD documents the USEPA's conclusion, based upon available information at the time, that active remediation of lake bed sediments was not warranted. Additional information related to this conclusion is available in the OU3 Feasibility Study (FS). Nevertheless, the USEPA continues to evaluate conditions in the lake and will use this information to determine whether response actions are necessary. As stated in the OU3 ROD and the five-year review report, the USEPA will evaluate lake conditions in future five-year reviews.

The USEPA recognizes that the Tribe is the beneficial owner of the submerged lands within the Reservation and use and control the water, fish and wildlife within the Reservation.

The Tribe believes EPA fell short of meeting its general trust obligations to the Tribe, as well as its CERCLA mandate to protect human health and the environment, by failing to adequately assess risks posed to Tribal resources in the lake during the RI/FS process, and by deferring remedial actions in the lake pending implementation of a lake management plan developed and funded by the Tribe, State of Idaho and local governments outside the Superfund process. At best, a successful lake management plan may reduce the impact of metals contaminated sediments on water quality in the lake, but it will not eliminate the risks those sediments pose to resident benthic organisms, fish and other natural resources. Under the circumstances, EPA's approach to the lake has left the Tribe to manage and protect, at its own expense and in-perpetuity, the largest tailings pond in the Basin, and perhaps the nation. EPA's failure to adequately address the Tribe's concerns in this regard is reflected in its present 5-Year Review.

The need for EPA to support additional lake studies to understand the impact of mining contaminated sediments in the lake on ecological receptors, and to support development of an effective lake management plan was identified in the recent prepublication report issued by the National Academy of Sciences, *Superfund and Mining Megasites - Lessons from the Coeur d'Alene River Basin*, July 2005, which concluded that:

> Further research is needed to support remedial actions intended to promote recovery of aquatic and terrestrial biota within the basin. Information is particularly lacking on effects to benthic invertebrate and fish communities in the lower basin, the magnitude and spatial extent of risks to riparian and upland communities, and the condition of benthic communities in Lake Coeur d'Alene in relation to contaminated sediments.

NAS Report at 244. The NAS also emphasized the need for additional study on conditions in the lake to develop an effective lake management plan, concluding that:

> The large uncertainties in the present understanding of the mechanisms of release of metals and nutrients from Lake Coeur d'Alene sediments and their transport and fate after release will limit development of an effective lake management plan.
>
> Lake Coeur d'Alene is currently the subject of a 3-year, integrated metal-nutrient flux study. Such studies to generate a greater understanding of metals dynamics are unquestionably needed before a viable lake management plan can be developed and implemented to limit the effects of metals loading to the lake on environmental and human health risks - including those associated with the Spokane River.

Id. at 305. In view of these conclusions, NAS recommended that:

> Comprehensive studies of Lake Coeur d'Alene should be given a high priority to support development of an effective lake management plan.

Id.

F4-1

Consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the USEPA has consulted and coordinated its efforts with the Tribe throughout the CERCLA cleanup process in OU3. This includes requesting that the Tribe review and comment on draft reports related to the cleanup. The USEPA also provided financial support for the Tribe's participation in the remedial investigation (RI), feasibility study, remedial design (RD) and remedial action (RA) phases of OU3 cleanup, and for fish investigative studies of the lake under Superfund. In addition, Clean Water Act funds have been provided for implementation of the Lake Environmental Monitoring Plan (LEMP) and hydrodynamic modeling of Coeur d'Alene Lake. Pending the outcome of these studies, evaluation of the National Academy of Sciences' National Research Council (NRC) recommendations and other considerations, the USEPA will evaluate the need for future studies.

The USEPA has also provided financial support for the development of a revised Lake Management Plan (LMP), and has worked with the State and the Tribe to secure mediation support to finalize an effective, multi-party LMP. An initial Coeur d'Alene LMP was developed by the Clean Lakes Coordinating Council, the Idaho Department of Environmental Quality (IDEQ), and the Coeur d'Alene Tribe to address water quality issues identified in a 1991-1992 water quality study. This LMP was completed in 1995 and adopted in 1996. A revised LMP is currently being developed but has not yet been completed or implemented. The USEPA has modified the language throughout the final report that the LMP is being revised and not implemented.

In view of these recommendations and conclusions, the Agency should re-evaluate its position on Lake Coeur d'Alene as part of its 5-Year Review process, and provide the support needed to adequately investigate conditions in Lake Coeur d'Alene and to develop and implement an effective lake management plan.

The Tribe also disagrees with statements throughout EPA's 5-Year Review document to the effect that a lake management plan for Lake Coeur d'Alene is currently being implemented by the Tribe, State of Idaho and local governments. The Tribe is unaware of any actual, on-the-ground implementation of either the 1996 Lake Coeur d'Alene Management Plan, or some other version of that plan. If EPA retains its present characterization, the Tribe requests that the Agency identify the lake management actions that have been implemented to date. The Tribe raised the same concern in its written comments on page 47, para. 2 of EPA's initial version of the 5-Year Review document. EPA has not addressed those concerns in the present 5-Year Review document.

Insofar as EPA continues to characterize the status of the lake management plan, the Tribe believes the following statement accurately reflects that status and should be inserted:

> In 2002, EPA deferred selection of remedial actions in Lake Coeur d'Alene, pending development of a lake management plan that is jointly adopted by the State of Idaho and the Coeur d'Alene Tribe, and that is adequately funded, implemented, and proven to be effective. To date no such plan has been developed, funded, or implemented. In addition, recent water quality data indicates that primary production in the lake has increased over the last 10 years, the Coeur d'Alene Tribe and the State of Idaho have jointly issued a fish consumption advisory applicable to Lake Coeur d'Alene, and the National Academy of Sciences has recommended that additional studies in the lake are essential to development of an effective lake management plan. In view of these new developments, EPA believes that additional Agency investigations are needed to assess the risks posed by mining pollution entering and residing in the lake, and to support development of an effective lake management plan.

F4-1

Specific Comments:

F4-2 ES-1, 1st sentence: Please add " within sections of the Coeur d'Alene Reservation"

F4-3 ES-6, OU3 ROD Issuance: The Tribe concurred generally in the remedial decision with respect to areas upstream of Lake Coeur d'Alene, but was critical of EPA's failure to address subsistence uses in those upstream areas, and EPA's deferral of any remedial decision on Lake Coeur d'Alene under the guise that the Tribe, state of Idaho, and other local governments would implement a revised and updated lake management plan at their own expense and outside the Superfund process.

F4-4 Table ES-6: EPA should include a column in this table that indicates whether or not each of the identified actions succeeded or achieved its goal. Incorporating this suggested approach would reveal, for example, that the SVNRT activities in Canyon Creek were not successful, since the tailings repository is leaking and the floodplain still cannot sustain vegetation.

Response to Comment F4-2

The site description in applicable sections of the final five-year review report has been changed to the following:

"The United States Environmental Protection Agency (USEPA) Region 10 has conducted its second, site-wide review of the Bunker Hill Mining and Metallurgical Complex Superfund Facility (the "Bunker Hill Superfund Site" or "Site") located within northern Idaho, sections of the Coeur d'Alene Reservation, and northeastern Washington."

Response to Comment F4-3

Comment noted.

Response to Comment F4-4

The format of the recommendations and follow-up actions table, as well as the issues table, is taken from current USEPA five-year review guidance. The suggestion to add whether an action succeeded or achieved its goal within the recommendations and follow-up actions table will be considered for the next five-year review.

F4-5

ES-8, 1st para after bullets, 1st sentence: This statement is false and should either be removed or modified to accurately reflect events associated with the LMP process, such as:

a) EPA has not selected a remedy for Lake Coeur d'Alene, and has deferred selection of remedial actions in the lake pending development of a joint LMP adopted by the Coeur d'Alene Tribe and the State of Idaho that is effective in addressing remobilization of heavy metals from mining contaminated lake sediments.

b) In the event that a joint-LMP is implemented and is effective in addressing risks posed by heavy metals in the lake, EPA could decide that there is no need for CERCLA actions in the lake

c) The Tribe and the state of Idaho collaborated in updating and revising the LMP, published the LMP for public comment, and prepared a responsiveness summary to those comments. However, the governments ultimately failed to reach consensus on a joint-LMP, and it has never been finalized.

d) There are differences between the State, the counties and the Tribe regarding the appropriate scope of the LMP, the process to implement the LMP, and the obligation of funds to implement the LMP.

e) The Tribe pledged $5 million dollars to the LMP, contingent on equal matching contributions from the United States and the state of Idaho. The Tribe received no response from either government

f) In March 2003, EPA explained what criteria the LMP would need to satisfy for the Agency to consider a "no-action" alternative for the lake. None of those criteria have been satisfied.

F4-6

ES-10, 3rd para, final sentence: The Tribe believes that EPA's 5-Year Review should also review areas within the site for which EPA has not selected remedial actions, such as Lake Coeur d'Alene. EPA's sentence indicates that its 5-Year Review is limited to evaluating remedial work, monitoring, and O&M in areas where it has selected remedial actions. Although EPA has failed to select any remedial actions for the lake, the Tribe believes that risks posed by hazardous substances in the water, fish, other biota and lake sediments warrant inclusion and discussion in the 5-Year Review.

F4-7

Table ES-9, Woodland Park Repository: Monitoring data indicates that this repository continues to leaks hazardous substances. EPA should monitor these releases.

F4-8

Table ES-8, ES-9, and ES-11: EPA appears to be suggesting that the only issues in the entire OU3 are those identified in these tables. The Tribe suggests expanding this to include several other issues such as; a) repository design and location, b) funding for the ecological remedy, c) an evaluation of the Commission process as related to implementing the ROD, d) the lack of finality of the human Health Risk Assessment conducted by ATSDR, and e) the lake fish advisory.

F4-9

Table ES-9, Summary of Recommendations: Add the Tribe as an oversight agency for the Cataldo Mission.

F4-10

Table ES-11: Add information related to the CWA funded demonstration projects approved by the Commission which have provided information that assists EPA with implementing its interim ROD in OU-3. Examples include; the stream bank stabilization project, the river model, the lake model, and fish/bank stabilization inventory.

Response to Comment F4-5

a) For this Executive Summary paragraph, the final five-year review report states the following:

"In addition, a remedy for Coeur d'Alene Lake is not included in the 2003 OU3 ROD. State, tribal, federal and local governments are in the process of developing a revised lake management plan outside of the Superfund process using separate regulatory authorities."

This paragraph can also be found in Sections 2.2.3, 5.1, 5.1.3, and 5.7 of the final five-year review report.

Section 5.7.3, Question A of the final five-year review report states that "a decision on a remedy was deferred by the USEPA pending the revision and adoption of an LMP would serve as the management tool for protecting the lake from increased nutrient enrichment and the possible metals mobilization from contaminated bottom sediments."

b) This information is provided in Section 5.7.1.1 of the final five-year review report, rather than the Executive Summary.

c) The status of the revised LMP is discussed in Section 5.7 of the final five-year review report, rather than the Executive Summary.

d) Conclusions and recommendations regarding LMP revisions are discussed in Section 5.7.1.1 of the final five-year review report, rather than the Executive Summary.

e) This comment is not relevant to the five-year review process or report, therefore, a response is not provided.

f) Comment noted. Criteria needed for a "no-action" alternative for the lake are included in Section 5.7.1.1 of the final five-year review report, rather than the Executive Summary.

Response to Comment F4-6

The USEPA agrees with the commenter. As described by CERCLA Section 121(c), the purpose of a five-year review is to evaluate the implementation and performance of certain remedial actions to determine if the remedial action is or will be protective of human health and the environment. In this second five-year review report, we have expanded this and included information on other activities such as the Operable Unit 2 (OU2) biomonitoring program and areas where remedial action has not been selected, such as Coeur d'Alene Lake. It is our intention once again to discuss the status of activities and issues pertinent to the Coeur d'Alene Lake during the third five-year review. This has been added to the Next Five-Year Review sections of the final five-year review report.

Response to Comment F4-7

The USEPA has been evaluating the groundwater monitoring data for Canyon Creek in general and specifically near the Woodland Park Repository. The USEPA has recently installed two wells at the base of the Woodland Park Repository and is conducting monitoring and pilot water treatment studies on water from these wells. Additional monitoring of these and other wells in Canyon Creek is anticipated in the future as the OU3 ROD is being implemented.

Response to Comment F4-8

Tables ES-7, ES-8, and ES-9 provide information on OU3 removal actions. Issues and follow-up actions regarding OU3 repository design and locations are identified in remedial action tables ES-11 and ES-12, and are discussed in Sections 5.1.5, 5.5.1.7, and 5.5.6 of the five-year review report. Actions to-date and recommended follow-up actions regarding the Coeur d'Alene Lake fish investigation and fish advisory can be found on remedial action tables ES-10 and ES-12, and discussed in Sections 2.3.2.2 and 5.5.1.10 of the five-year review report.

Obtaining funding for ecological remedies has been added to the ES-12 Summary of Recommendations and Follow-up Actions table. This is also briefly discussed under the Implementing the Selected Remedy text in the Executive Summary text, and in Section 5 of the final five-year review report.

To date, the USEPA does not believe that the Basin Commission's role in OU3 ROD implementation has affected remedy protectiveness.

As noted by the commenter, the Public Health Assessment is an Agency for Toxic Substances and Disease Registry (ATSDR) document and the USEPA is not able to influence when ATSDR finalizes its documents.

Response to Comment F4-9

This revision has been made to the final five-year review report.

Response to Comment F4-10

As stated in the first paragraph of the Executive Summary and Section 1, Clean Water Act (CWA) projects "are outside the scope of this review." However, the results of these demonstration and pilot projects, and any other relevant studies, will be carefully reviewed by the USEPA and may inform future remedial actions.

F4-11 Table ES-12, ICP: The ICP needs to include protection and management of areas where EPA has selected remedial actions but such remediation will not be completed for decades.

F4-12 Table ES-12, CDA Lake Fish Investigation: This section should include a study to identify the pathway associated with high burdens of metals in whole lake fish and lake fish tissues.

F4-13 Page 1-1, first para: Add the Coeur d'Alene Reservation to the first sentence.

F4-14 Page 1-2, Section 1.2: It is important to state that the Tribe gave support with great reservations, especially in the way the EPA deferred a remedial decision on the lake.

F4-15 Page 2-8, sentence paragraph: EPA should not suggest that this ROD is a significant step towards **full** protection of human health when, in fact, EPA's selected remedy does not seek to protect subsistence lifestyles in areas upstream of Lake Coeur d'Alene.

F4-16 Page 2-8, 2nd paragraph after bullets: Same comment as ES-8, above concerning the Lake

F4-17 Page 2-9, Section 2.3.1, first sentence: Add humans, fish, wildlife and other biota to the list of receptors. Although the Tribe made this comment in the last draft we are concerned this change was not made. Why?

F4-18 Page 2-10, 2.3.3: Add fish, human, wildlife and other biota to these bullets.

F4-19 Page 2-14, 1st paragraph, middle: Omit the word "could" and add "will", as related to increasing metals mobilization with increased nutrient loading.

F4-20 Page 5-1, last para: Once again, it is disingenuous for EPA to claim that this remedy is a significant step to achieving **full** protectiveness of human health when the indigenous people of the area are not being protected as part of the remedy. Also, since many of the ecological problems in the basin will remain after this ROD is completed (i.e., only 20% of the contaminated flood-plains are addressed, and the lake bottom has been omitted from the remedy), this statement is false as related to the protection of the basin's ecology.

F4-21 Page 5-2 3rd full paragraph: Same comment as ES-8.

F4-22 Page 5-6, 5.1.1, 2nd para: Since this ROD does not address Tribal cultural and subsistence lifestyles issues, what does EPA propose to do to follow up on this large omission?

F4-23 Page 5-7, ICP: Since the ROD will require 30 years to complete, the ICP must be developed to manage contaminated areas that may not receive remediation for decades.

F4-24 Page 5-12, Section 5.1.3: Change this paragraph as discussed previously.

F4-25 Page 5-14, last paragraph: Add Tribal WQS.

F4-26 Page 5-15, Add a section on tribal water quality standards.

Response to Comment F4-11

Comment noted. Section 5.3.1 of the five-year review report includes a description of factors that need to be addressed for the OU3 Institutional Controls Program (ICP), including definition of ICP boundaries and working with local communities to adopt companion ordinances.

Response to Comment F4-12

The USEPA does not believe that an exposure pathway study of Coeur d'Alene Lake is warranted at this time. As the Tribe is aware, the Coeur d'Alene Lake fish investigation was conducted to address a data gap in the human health risk assessment. The risk assessment concluded that there were insufficient data available on contaminant concentrations in fish in Coeur d'Alene Lake to quantify risks. The Idaho Department of Health and Welfare (IDHW), the Coeur d'Alene Tribe, and the ATSDR evaluated the fish tissue data. Based upon this evaluation, the IDHW and the Coeur d'Alene Tribe jointly issued a fish advisory in 2003.

Response to Comment F4-13

See response to comment F4-2.

Response to Comment F4-14

The decision to defer a remedial action on Coeur d'Alene Lake was an issue for the OU3 ROD, not the five-year review process or report (see response to comment F4-1). The Tribe's specific concerns on this issue were addressed in the Tribe's letter of concurrence and included in the OU3 ROD.

In regard to reservations about contributing or providing support for the five-year review process and report, the

USEPA declines to include the suggested language. The USEPA and the IDEQ both appreciate the contributions made by the Tribe in reviewing and commenting on report drafts and providing information on the Coeur d'Alene Lake sections of the report.

Response to Comment F4-15

The USEPA continues to believe that the OU3 interim ROD represents a significant step towards full protection of human health. The five-year review report notes that the OU3 ROD does not address certain exposures impacting human health, including subsistence lifestyles.

Response to Comment F4-16

See response to comment F4-5.

Response to Comment F4-17

The sentence has been revised in the final five-year review report to specify only the media that have been contaminated throughout the Site "… soil, sediment, surface water, and groundwater." As such, the suggested additional receptors have not been added to the final five-year review report.

Response to Comment F4-18

The bullets under the Nature and Extent of Contamination Affecting Ecological Receptors section provide a list of chemicals of ecological concern for ecological protection, not a list of human and ecological receptors. The additional bullets were not added to the final five-year review report.

Response to Comment F4-19

Currently there are not enough data to definitively make this statement. Lake eutrophication studies and the lake model first need to be completed.

Response to Comment F4-20

The USEPA continues to believe that the OU3 interim ROD represents a significant step towards full protection of human health and the environment. At the same time, the OU3 ROD acknowledges that certain exposures impacting human health and the environment, including subsistence lifestyles, are not addressed by the OU3 ROD. In addition, the five-year review report notes that the OU3 ROD is an interim ROD, and that the USEPA will continue to work with EPA Headquarters and other parties to secure funding for OU3 ecological remedies.

Response to Comment F4-21

See response to comment F4-5.

Response to Comment F4-22

This comment is not relevant to the five-year review process or report; therefore, a response is not provided.

Response to Comment F4-23

Comment noted. Section 5.3.1 of the report includes a description of factors that need to be addressed for the OU3 ICP, including definition of ICP boundaries and working with local communities to adopt companion ordinances.

Response to Comment F4-24

See response to comment F4-5.

Response to Comment F4-25

The last paragraph under Idaho Water Quality Standards will be changed to the following:

"The ARARs identified in the 2002 OU3 ROD, and the above noted change, continue to be protective. The USEPA recognizes that other requirements are under development but not yet finalized (e.g., Coeur d'Alene Tribal water quality standards). At such time that other potential standards become final, the USEPA will evaluate their applicability to the Site."

Response to Comment F4-26

See response to comment F4-25.

F4-27 Page 5-19, 2nd paragraph: Add the Tribe as a government that has preformed removal activities.

F4-28 Page 5-19, 2nd paragraph, Table 5-13: This is an incorrect citation of the table.

F4-29 Page 5-20, 5th paragraph: This is an incorrect citation of the table. This should read Table 5-14.

F4-30 Page 5-55, Question B: The Tribe believes that exposure assumptions have not been fully evaluated and therefore, suggest that a pathway study be conducted to understand the reason why fish are being contaminated.

F4-31 Page 5-62, Section 5.5.2. Ecological Evaluations: In the last year the Basin Commission has funded several demonstration studies in the lower basin to either implement or inform the ecological remedial design. Examples include; a) stream stabilization demonstration project, b) fish survey as related to various stream stabilization treatments, and c) the river and lake models. All of these projects should be added to this section of the report as follow ups.

F4-32 Page 5-90, 1st paragraph under Pine Creek: Please add the word "predicted" before fisheries status.

F4-33 Page 5-97, Section 5.5.6.4: Please add the Coeur d'Alene Tribe as another government which was involved in identification of potential sites suitable for repository development.

F4-34 Page 5-102, Section 5.6.1.5: Add the fact that the water quality data (and other data) is available on the USGS storet database. You may also want to mention that EPA spent considerable time modifying this database to be more user friendly.

F4-35 Page 5-113, Section 5.7, Coeur d'Alene Lake: The same comments concerning the lake as stated above, are applicable here. Also the Tribe believes that if EPA's guidelines on 5-Year Review permit evaluation of only EPA's remedial work, monitoring, and O&M activities, the no mention of the Lake should be made in this document, and would need to be addressed outside it.

F4-36 Page 5-114, at the bottom of page: Since the 2002 Addendum was produced new information has been generated which suggests that lake productivity (as expressed by chlorophyl a) has doubled (USGS data collected as part of the 3-Year lake study funded by the Commission). This data should be reviewed by EPA and evaluated for addition to this section of the report.

F4-37 Page 5-114, 4th paragraph: The Tribe would like EPA to add the following: Although the remedial investigation characterized that; a) vast amounts of hazardous substances have come to be located in the lake bed sediments (an estimated 75 million plus tons of contaminated sediment), b) there are no available high quality data on the spatial or temporal concentration of dissolved zinc in the pore water, c) there is little information on spatial values of benthic flux of dissolved zinc into Lake Coeur d'Alene and none on seasonal values, d) additional research would be needed to better understand the mechanisms and the role of biology in controlling transformations of dissolved to particulate zinc in Lake Coeur d'Alene, e) the Lake bed sediments served as a major repository for metals and nutrients that had been removed from the water column via sedimentation, f) several issues remain unclear regarding the fate and transport

Response to Comment F4-27

Section 5.4 of the final five-year review report has been revised to include the Coeur d'Alene Tribe in the list of entities that have implemented OU3 removal actions.

Response to Comment F4-28

The final five-year review report has been revised to cite the correct table number (Table 5-16) for the summary of OU3 removal actions.

Response to Comment F4-29

The final five-year review report has been revised to cite the correct table number (Table 5-16) for the summary of OU3 removal actions.

Response to Comment F4-30

The USEPA does not believe that a pathway study of Coeur d'Alene Lake is warranted at this time.

Response to Comment F4-31

The demonstration studies noted in the comment were funded with Clean Water Act grant monies, not CERCLA monies. Per response to comment F4-10, the first paragraphs of the Executive Summary and Section 1 state that CWA projects "are outside the scope of this review." However, the results of these demonstration and pilot projects, and any other relevant studies, will be carefully reviewed by the USEPA and may inform future remedial actions.

Response to Comment F4-32

This change has been made to the final five-year review report.

Response to Comment F4-33

This has been included in the final five-year review report.

Response to Comment F4-34

The STORET database is actually a USEPA, not USGS, database. STORET is the USEPA's national repository for environmental monitoring data. Basin Environmental Monitoring Plan (BEMP) data management and the STORET.org web-based data repository are already described and discussed in detail in Section 5.6.1.6 of the report. The commenter may not have noted this discussion because several tables preceded Section 5.6.1.6 in the public draft version of the five-year review report. Document pagination will be revised so that the text is continuous to prevent confusion for readers.

Response to Comment F4-35

See responses to comments F4-1, F4-5, and F4-6. Although the OU3 ROD does not include a Selected Remedy for Coeur d'Alene Lake, the ROD does state, as does this five-year review report, that evaluation of lake conditions will be included in future five-year reviews.

Response to Comment F4-36

We presume that the commenter is referring to the 2002 OU3 ROD, and not the unidentified "Addendum." The increases in chlorophyll concentrations were already noted in the draft five-year review report on page 5-117 (Section 5.7.2.1). This text has been maintained in Section 5.7.2.1 of the final five-year review report.

Response to Comment F4-37

Many of the items noted in this comment were included in the text of the public draft version of the five-year review report and have been maintained in the final report. The USEPA anticipates that after the ongoing CWA lake investigations are complete, the Coeur d'Alene Tribe, the State of Idaho, and other parties involved in lake issues will evaluate the study findings. Results of the current investigations will shed information on the myriad issues concerning the lake that the Tribe raises in this comment. Evaluation of the current study results may also aid in the identification of key data gaps that will need to be prioritized for potential funding.

As is noted in the Executive Summary and Sections 2.2.3 and 5.1 of the final five-year review report, the USEPA is currently conducting a careful evaluation of the National Acadamies' National Research Council (NRC) July 14, 2005, pre-publication report recommendations and findings. The final NRC report is expected to be released in December 2005. The USEPA intends to work with others invested in the issues, such as the Coeur d'Alene Tribe, to consider the NRC recommendations and, where appropriate, translate those findings into action.

of metals and nutrients in Lake Coeur d'Alene. Most notable is the relative role of riverine and benthic sources in determination of water-column concentrations and export of metals and nutrients to the Spokane River. Tied to that issue are the spatial and temporal effects of transformation and remineralization reactions on dissolved and particulate metals and nutrients within the water column and at the water-sediment interface., and g) water quality standards are routinely violated, EPA has deferred a remedial decision on the Lake and has suggested only one fish tissue study to evaluate the many uncertainties which riddle the pages of the RI (not to mention all the biological problems and uncertainties outlined in the Eco-Risk Assessment). This paragraph should be added prior to the sentence that starts with, "The 2002 OU3 ROD does not include a remedy....."

F4-37 In addition, the Tribe would like EPA to explain in this 5-Year review what support the Agency intends to provide to further the NAS recommendation that comprehensive studies of Lake Coeur d'Alene should be given a high priority to support development of an effective lake management plan.

F4-38 Page 5-115, recommendations: Once again this is a perfect section to add a discussion on what EPA would do if consensus can not be reach on a joint LMP.

F4-39 Page 5-115, Bullets: These bullets do not accurately reflect the primary obstacles to accomplish a consensus LMP. Additional bullets should include:

- what should be done to monitor the lake?
- what additional studies need to be conducted to answer all the questions raised in the RI?
- how will the information collected during the audit of the 1996 LMP change the LMP.
- what will the outcome of the lake response model?
- what role, if any, should the Basin Commission have in the implementation of the LMP
- what is a measure of success
- what is a measure of failure
- what potential regulatory, BMP changes should be built into the LMP to change activities if monitoring shows water quality has deteriorated?

F4-40 Page 5-115, 2nd to last paragraph, after the last sentence: Add that the Tribe pledged $5 million dollars and challenged both the State and federal government to match this amount as a show of commitment to funding the LMP. This challenge was not matched.

F4-41 Page 5-116, bullets: In addition to the bullets provided add the following:

- A list sediment reduction projects to implement on a myriad of basin-wide tributaries which drain into the waters of the lake.
- Monitoring activities
- Study activities
- joint Tribal/State implementation activities

Response to Comment F4-38

The USEPA has worked with the State and the Tribe to secure mediation support to finalize an effective, multi-party LMP. If consensus cannot be reached on an effective LMP, the USEPA will consider other available options. This is noted in the final five-year review report.

Response to Comment F4-39

The five-year review report identifies examples of obstacles to developing a revised LMP, which include funding. Although the USEPA recognizes that there are other obstacles, the purpose of the five-year review was not to discuss all of these in the five-year review report; rather these are to be discussed and resolved as part of the LMP revision process.

Response to Comment F4-40

This sentence was not added to the final report as it is not relevant to this five-year review.

Response to Comment F4-41

The list of activities included in the 1996 LMP has been deleted from the final five-year review report. The USEPA does not feel that this listing is relevant to this five-year review process or report.

F4-42 Page 5-117, limnological monitoring: Although EPA claims the LEMP to be a critical component of the LMP, please add...." after the 3-Year lake study is completed no additional funding has been identified to continue to track water quality trends." In addition a discussion on the lake model which will be the predictive tool to estimate changes in benthic flux given changes in metals and nutrients, should be added.

F4-43 Page 5-117, Section 5.7.2.2 Eco health monitoring: The Tribe agrees that the LMP monitoring plan must track ecological health issues (those included in this section as well as others). These studies are expensive and the State of Idaho has indicated it does not support the Tribe's proposed scope of such studies, exemplifying one of the disagreements between the governments on the LMP. The Tribe's view is supported by the recent conclusions and recommendations of the NAS.

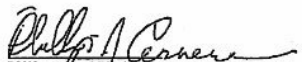
F4-44 Page 5-118, Question A: A revised draft was developed by the State. This is not a joint revision and will not be the focus of any mediation process between the governments.

F4-45 Page 5-119, Table 5-58: Recommendations section should read, "Completion and initiation of the implementation of the LMP."

F4-46 Page 5-125, Section 5.9: This short evaluation of the performance of the OU3 remedy seems as if the writer ran out of steam. After nearly 200 pages of discussion on the OU3 it seems that more time should be dedicated to the section.

Thank you for the opportunity to comment on EPA's 5-Year Review document, and hopes these comments assist the agency in its review process. We look forward to working in coordination with EPA to advance CERCLA remedial work in the Basin.

Sincerely,



PHILLIP J. CERNERA
Restoration Coordinator
Coeur d'Alene Tribe

cc: Alfred Nomee
Chronolog

Response to Comment F4-42

The "sophisticated predictive models of lake water quality and potential mobility of metals out of lakebed sediments in response to nutrient inputs to the lake" was discussed in Section 5.7.2.1 of the draft five-year review report. This text has been maintained in the final version of the five-year review report.

Response to Comment F4-43

Comments noted.

Response to Comment F4-44

Comment noted; however, the USEPA has obtained mediation support for this process.

Response to Comment F4-45

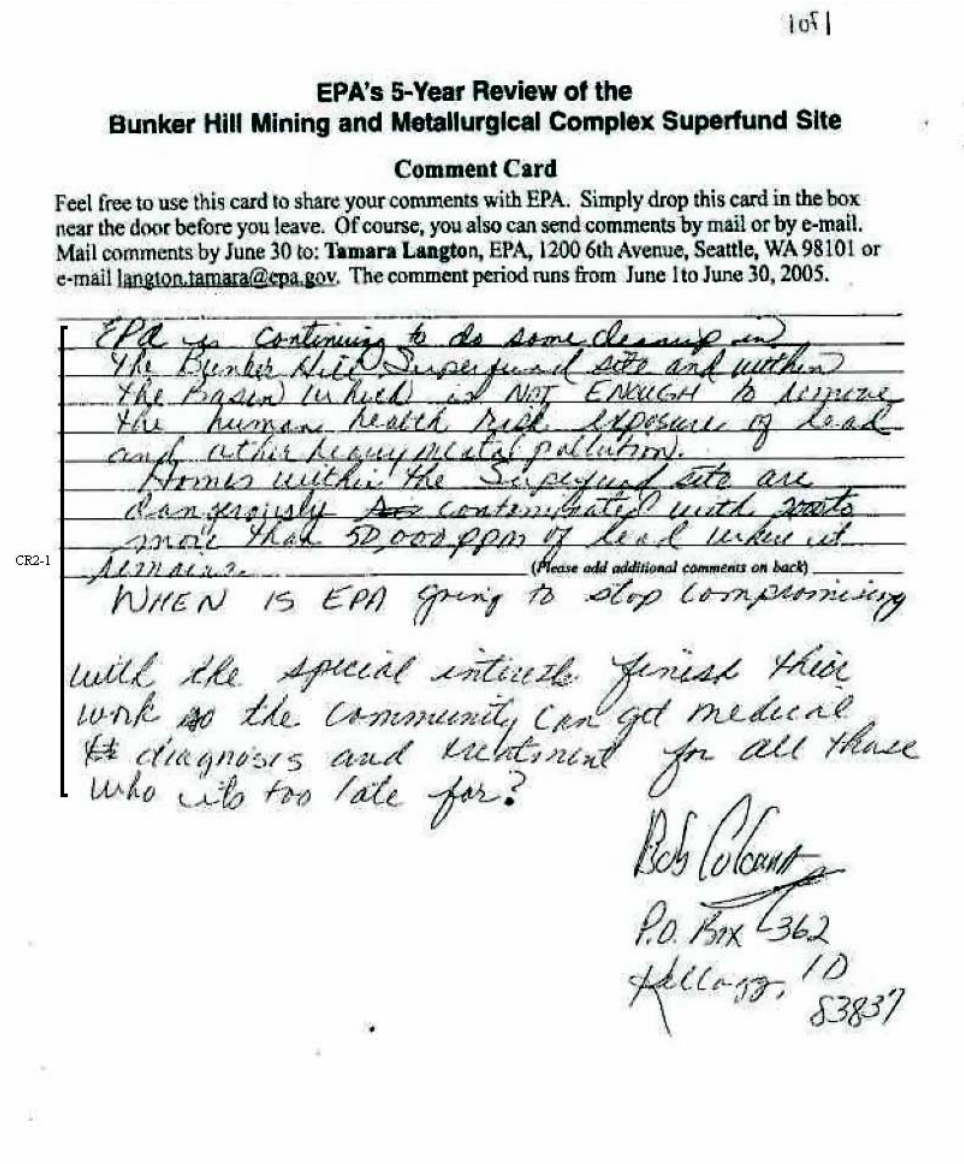
Table 5-66 in the final five-year review report has been revised to read: "Complete and initiate Lake Management Plan."

Response to Comment F4-46

Comment noted.

Bob Colona

Letter - CR2. Signatory - Bob Colona.



EPA's 5-Year Review of the
Bunker Hill Mining and Metallurgical Complex Superfund Site

Comment Card

Feel free to use this card to share your comments with EPA. Simply drop this card in the box near the door before you leave. Of course, you also can send comments by mail or by e-mail. Mail comments by June 30 to: **Tamara Langton**, EPA, 1200 6th Avenue, Seattle, WA 98101 or e-mail langton.tamara@epa.gov. The comment period runs from June 1 to June 30, 2005.

EPA is continuing to do some cleanup in the Bunker Hill Superfund site and within the Basin we feel is NOT ENOUGH to remove the human health risk exposure of lead and other heavy metal pollution.

Homes within the Superfund site are dangerously ~~Are~~ contaminated with more than 5D,000 ppm of lead when it remains.

CR2-1 (Please add additional comments on back)

WHEN IS EPA going to stop compromising with the special interests finish their work so the community can get medical diagnosis and treatment for all those who are too late for?

Bob Colona
P.O. Box 362
Kellogg, ID
83837

Response to Comment CR2-1

Addressing human health exposures has been the USEPA's top priority at the Bunker Hill Superfund Site. Residential cleanup actions have been underway for several years and the goal is to complete the Operable Unit 1 (the populated areas of the Box) yard cleanups in 2006. The goal for Operable Unit 3 (Basin) is to complete sampling and cleanup of residential and community areas in five years.

The USEPA and the State of Idaho continue to sample residential soils and house dust to determine which homes require cleanup. As noted in the final five-year review report, the USEPA has achieved several cleanup goals in Operable Unit 1 where lead soil and house dust community average concentrations are close to or below 350 milligrams per kilogram (mg/kg or parts per million [ppm]) for soil and 500 ppm for house dust. These reductions, along with health intervention activities and other factors noted in the final report, have resulted in lower blood lead levels in community children. The USEPA and the State of Idaho will continue to monitor lead in house dust and soils as remedial actions are implemented.

Department of the Interior

Letter - F1. Signatory -US Department of the Interior

United States Department of the Interior
Office of the Secretary
Office of Environmental Policy and Compliance
500 NE Multnomah Street, Suite 356
Portland, Oregon 97232-2036
Office: 503-231-6157 Fax: 503-231-2361

Fax Cover Sheet

Cover page + 10 attachments

TO: Tamara Langton Date: 6/30/2005

Fax number: 206-553-0124

Comments:

DOI Comments on Bunker Hill Review.

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
500 NE Multnomah Street, Suite 356
Portland, Oregon 97232-2036

IN REPLY REFER TO:

June 30, 2005

Tamara Langton
U.S. Environmental Protection Agency
1200 6th Avenue,
MS ECL-113
Seattle, WA 98101

Dear Ms. Langton,

Enclosed are comments from the U.S. Fish and Wildlife Service and Bureau of Land Management on the Second Five-Year Review for the Bunker Hill Mining and Metallurgical Complex Superfund Site, Operable Units 1, 2 and 3, Idaho and Washington. Please consider these the Department's comments on the subject document. The Department appreciates the opportunity to comment.

If there are any questions regarding the Fish and Wildlife's comments, please contact Dan Audet (509/893-8001) or Brian Spears (509 893-8032) at the Upper Columbia Fish and Wildlife Office in Spokane, Washington. For questions regarding the Bureau of Land Management comments please contact Dave Fortier, (208 769-5022) at the Coeur d'Alene District Office, Coeur d' Alene, Idaho. If I can be of any assistance please contact me at (503 231-6157).

Sincerely,

Preston A. Sleeger
Regional Environmental Officer

Enclosure

cc: DOI, Portland (Stein)
FWS, Portland (Kirchner)
BLM (Fortier)

Purpose of the Five-Year Review

The five-year review includes descriptions of its purpose in the Superfund process: "The purpose of the review is to evaluate whether the remedies that have been or will be implemented at the site pursuant to RODs and other decision documents are or will be protective of human health and the environment" (page ES-1). This five-year review specifically evaluates the effectiveness of Phase I remediation with current available information and steps for Phase II implementation:

- Page ES-9: "Phase II of the OU2 remedy…will consider any shortcomings encountered in implementing Phase I and will specifically address long-term water quality, ecological, and environmental management issues."
- Section 4.1, page 4-2: "Phase II will be implemented "after the completion of Phase I source control…and evaluation of the effectiveness of these activities in meeting water quality objectives…any shortcomings encountered during Phase I are to be considered prior to Phase II remedy implementation."

General Comments

GC-1 The "Y" and "N" designations in the "Affects Protectiveness" column in tables continues to be confusing. For example, how is a remedial action or issue designated as affecting protectiveness in the future ("Y"), but not within the coming year ("N"); how does the issue of the potential release of metals from contaminated sediments not affect protectiveness (Table 5-57)? Examples of these designations and discrepancies need to be explained. F1-1

GC-2 Technical Assessment sections throughout the document refer to section 1.4 for the technical assessment description and outline. Section 1.4 are references. The correct section should be 1.2.2. F1-2

Specific Comments

Comment 1. Table ES-4. Text states that "No maintenance has been required since completion of the remedial action…" for several of the gulch areas. Small scale soil sampling by USFWS suggests that protective covers in remediated areas are not intact (see Comment 5) as intended (<100 mg/kg lead, section 4.1.2, page 4-12). It is impossible to determine that no maintenance is required without evaluating surface metals concentrations to determine the stability of remedial caps and potential recontamination. Confirmation soil/sediment sampling should be conducted periodically in all remediated areas as part of maintenance activities in continued evaluation of remedy success. F1-3

Comment 2. Table ES-5, Page Pond issues. Surface sediment samples taken in the East and West Swamps in 1993, as reported by McCulley, Frick, and Gilman, Inc., (1994), contained lead concentrations up to 26,800 mg/kg and 5,990 mg/kg, respectively. These concentrations are well above levels that are protective to ecological F1-4

Response to Comment F1-1

Section 1.2.3 of the final five-year review report includes an expanded explanation of the N and Y "affecting protectiveness" designations, including examples of when the coming year could be designated as an "N," but future years are designated as a "Y." In Table 5-65 (Summary of Coeur d'Alene Lake Issues) of the final five-year review report (formerly Table 5-57 in the public review draft), the current and future affects protectiveness designation for the lake eutrophication issue has been revised to "Y."

Response to Comment F1-2

Technical assessment sections in the final five-year review report have been revised to eliminate the cross-reference.

Response to Comment F1-3

In response to the first part of your comment, the Operable Unit 2 (OU2) clean backfill requirement of 100 milligrams per kilogram (mg/kg) of lead is not the "trigger" for maintenance of a remedy nor is it the standard by which OU2 remedy performance is measured.

Phase I remedial action goals for the gulches focused on source removal and stabilization of contaminated soils or sediments in select gulch floors (1992 OU2 Record of Decision [ROD] and 1995 Comprehensive Cleanup Plan [CCP]). As with most areas within OU2, a chemical-specific soil excavation goal of 1,000 mg/kg lead was used for source removal actions in most of these selected gulch floors. The 1,000 mg/kg lead excavation goal is based on human health risk levels and not ecological risk levels.

However, as part of the OU2 Phase I remedy evaluation and consideration of a potential OU2 Phase II remedy, additional actions may be considered within the context of site-wide ecological cleanup goals.

There were a few exceptions, however, to this 1,000 mg/kg lead excavation goal in OU2: the north of I-90 Smelterville Flats removal action (see response to comment F1-9) and the Government Gulch and Magnet Gulch removal actions. The 1998 OU2 ESD provided separate upland (outside of the stream corridor) and streambed excavation goals for these two gulches to minimize the overall combined metals loading from the Site to the SFCDR and to minimize human exposure potential to contaminated soils.

Non-hillside, upland area excavations goals in these two gulches were set at 10,000 mg/kg lead, 850 mg/kg arsenic, 9,000 mg/kg zinc, 850 mg/kg antimony, 850 mg/kg mercury, and 850 mg/kg cadmium. Non-hillside, upland areas found to be below an excavation goal (e.g., 10,000 mg/kg lead) but above 1,000 mg/kg lead were generally capped with an ICP-approved barrier consistent with future land use plans. The clean backfill requirement was 100 mg/kg lead.

For streambed and floodplain areas in these two gulches, different analytical goals were set due to the increased likelihood of human exposure via direct contact in the stream or farther down the river, as well as the likelihood of increased leaching from constant wetting and drying. Streambed and floodplain area excavation goals were set at 1,000 mg/kg lead, 850 mg/kg arsenic, 1,000 mg/kg zinc, 850 mg/kg antimony, 850 mg/kg mercury, and 850 mg/kg cadmium. Areas found to be above an excavation goal (e.g., 1,000 mg/kg lead) were excavated and reconstructed using geotextiles, soil, and rock compliant with ICP backfill requirements. In those streambed and floodplain areas where the excavation goals were not attainable after repeated excavations, materials were removed to a minimum of 2 feet below the last excavation elevation and were backfilled with coarse rock compliant with ICP backfill requirements

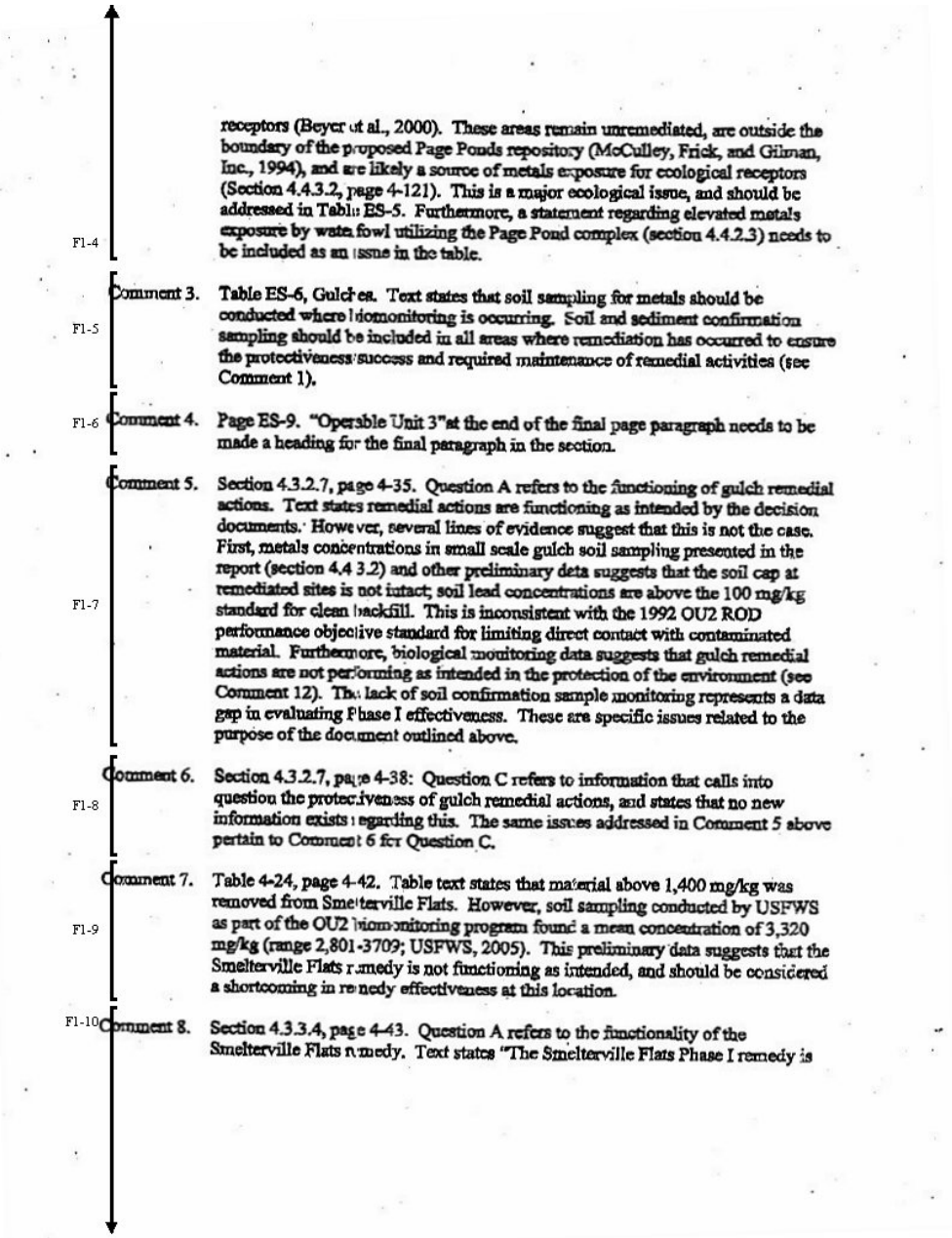
In response to the second part of your comment, there is no OU2-wide plan to conduct periodic confirmational soil/sediment sampling with the exception of sampling in conjunction with OU2 biological resources monitoring, nor is the USEPA required to conduct confirmational sampling for five-year review purposes. Data for five-year reviews is gathered and analyzed from many sources including the following:

- Review of the first five-year review reports for OUs 1 and 2;
- Review of remedies selected in the Site RODs, as amended or modified;
- Review and assessment of relevant monitoring data (e.g., water quality monitoring data) and remedy completion reports, including Potentially Responsible Party (PRP) reports;
- Review of operations and maintenance (O&M) records;
- Onsite inspections;
- Interviews with various individuals familiar with specific remedial activities; and
- Notification and solicitation of comments from the public and other interested parties.

In addition to five-year reviews, the USEPA and the State of Idaho conduct periodic visual site inspections of all OU2 remediated areas including gulch floors to ascertain if any sampling or maintenance is required. If upon inspection it is found that a protective cover has been compromised, sampling may be required, and if found above 1,000 mg/kg lead, repair of the cover implemented. O&M plans for each of the gulches are also being developed to ensure that remedies remain intact. In addition, the OU2 Box ICP guides the establishment and maintenance of effective barriers in undeveloped areas where surficial soil lead concentrations exceed 1,000 mg/kg lead and in residential areas where lead concentrations exceed the residential community average of 350 mg/kg, with no property exceeding 1,000 mg/kg. Overall remedy performance is determined after evaluating all of the above sources of information.

Response to Comment F1-4

The 1992 OU2 ROD selected the remedy for Page Ponds, which included the removal of approximately 40 to 60 thousand cubic yards of jig tailings from the West Page swamp area. Actions to remove tailings from the East Page swamp area were not part of the Selected Remedy. As noted in the 2000 OU2 five-year review report, approximately 40,000 cubic yards of West Beach tailings were removed in the winter of 1997-1998. Since that time, exposed tailings in the eastern portion of the North Channel have also been addressed and these actions are noted in the 2005 final five-year review report. The issue of waterfowl lead exposure from Page Ponds is described in Section 4.4.3 of the final report (Biological Monitoring) and, therefore, is captured in the issue table for OU2 (see Table ES-5). In addition, as part of the OU2 Phase I remedy evaluation and consideration of a potential OU2 Phase II remedy, additional actions may be considered within the context of site-wide ecological cleanup goals. The USEPA has included clarifying text in the final report.



receptors (Beyer et al., 2000). These areas remain unremediated, are outside the boundary of the proposed Page Ponds repository (McCulley, Frick, and Gilman, Inc., 1994), and are likely a source of metals exposure for ecological receptors (Section 4.4.3.2, page 4-121). This is a major ecological issue, and should be addressed in Table ES-5. Furthermore, a statement regarding elevated metals exposure by water fowl utilizing the Page Pond complex (section 4.4.2.3) needs to be included as an issue in the table.

F1-4

Comment 3. Table ES-6, Gulches. Text states that soil sampling for metals should be conducted where biomonitoring is occurring. Soil and sediment confirmation sampling should be included in all areas where remediation has occurred to ensure the protectiveness/success and required maintenance of remedial activities (see Comment 1).

F1-5

F1-6 Comment 4. Page ES-9. "Operable Unit 3" at the end of the final page paragraph needs to be made a heading for the final paragraph in the section.

Comment 5. Section 4.3.2.7, page 4-35. Question A refers to the functioning of gulch remedial actions. Text states remedial actions are functioning as intended by the decision documents. However, several lines of evidence suggest that this is not the case. First, metals concentrations in small scale gulch soil sampling presented in the report (section 4.4.3.2) and other preliminary data suggests that the soil cap at remediated sites is not intact; soil lead concentrations are above the 100 mg/kg standard for clean backfill. This is inconsistent with the 1992 OU2 ROD performance objective standard for limiting direct contact with contaminated material. Furthermore, biological monitoring data suggests that gulch remedial actions are not performing as intended in the protection of the environment (see Comment 12). The lack of soil confirmation sample monitoring represents a data gap in evaluating Phase I effectiveness. These are specific issues related to the purpose of the document outlined above.

F1-7

Comment 6. Section 4.3.2.7, page 4-38: Question C refers to information that calls into question the protectiveness of gulch remedial actions, and states that no new information exists regarding this. The same issues addressed in Comment 5 above pertain to Comment 6 for Question C.

F1-8

Comment 7. Table 4-24, page 4-42. Table text states that material above 1,400 mg/kg was removed from Smelterville Flats. However, soil sampling conducted by USFWS as part of the OU2 biomonitoring program found a mean concentration of 3,320 mg/kg (range 2,801-3709; USFWS, 2005). This preliminary data suggests that the Smelterville Flats remedy is not functioning as intended, and should be considered a shortcoming in remedy effectiveness at this location.

F1-9

F1-10 Comment 8. Section 4.3.3.4, page 4-43. Question A refers to the functionality of the Smelterville Flats remedy. Text states "The Smelterville Flats Phase I remedy is

Response to Comment F1-5

See response to comment F1-3.

Response to Comment F1-6

This has been corrected in the final five-year review report.

Response to Comment F1-7

Phase I gulch remedial actions are functioning as intended by decision documents. See response to comment F1-3.

In regard to biomonitoring sampling results and protection of the environment, the goals of the 1992 OU2 ROD did not include protection of ecological receptors. However, as part of the OU2 Phase I remedy evaluation and consideration of a potential OU2 Phase II remedy, additional actions may be considered within the context of site-wide ecological cleanup goals. The results from biological monitoring will be considered during the Phase I evaluation. The USEPA has included this clarifying text in applicable Technical Assessment sections of the final five-year review report, including Section 4.3.2.8 for the gulches.

Response to Comment F1-8

See responses to comments F1-3 and F1-7.

Response to Comment F1-9

Table 4-24 of the public comment version of the five-year review report was in error. The removal goal for Smelterville Flats south of I-90 was 1,000 mg/kg lead. The site-specific removal goals for Smelterville Flats north of I-

90 were 3,000 mg/kg lead and 3,000 mg/kg zinc. This has been corrected in the final five-year review report.

The site-specific goals for Smelterville Flats north of I-90 were based on a number of factors: concentrations found in the sediments typical of the SFCDR, dewatering limitations, the presence of physical barriers (e.g. large woody vegetation next to the river), and the presence of native alluvial material overlying and commingled with tailings throughout the area. Although a significant volume (1.2 million cubic yards) of tailings was removed from the Flats north of I-90, a complete removal was not necessary in order to achieve remedial action objectives (RAOs). Few removals were conducted in areas near and north of the SFCDR. The areas that were excavated, and most of the areas where contamination remained and where material was too coarse to support vegetation, were capped or constructed with clean materials (less than 100 mg/kg lead). Topsoil was placed in the upland and floodplain areas and clean rock was placed in the primary river channel construction areas. Capping and revegetation were done to prevent direct contact with underlying contaminants by humans and animals and to stabilize the floodplain and minimize erosion.

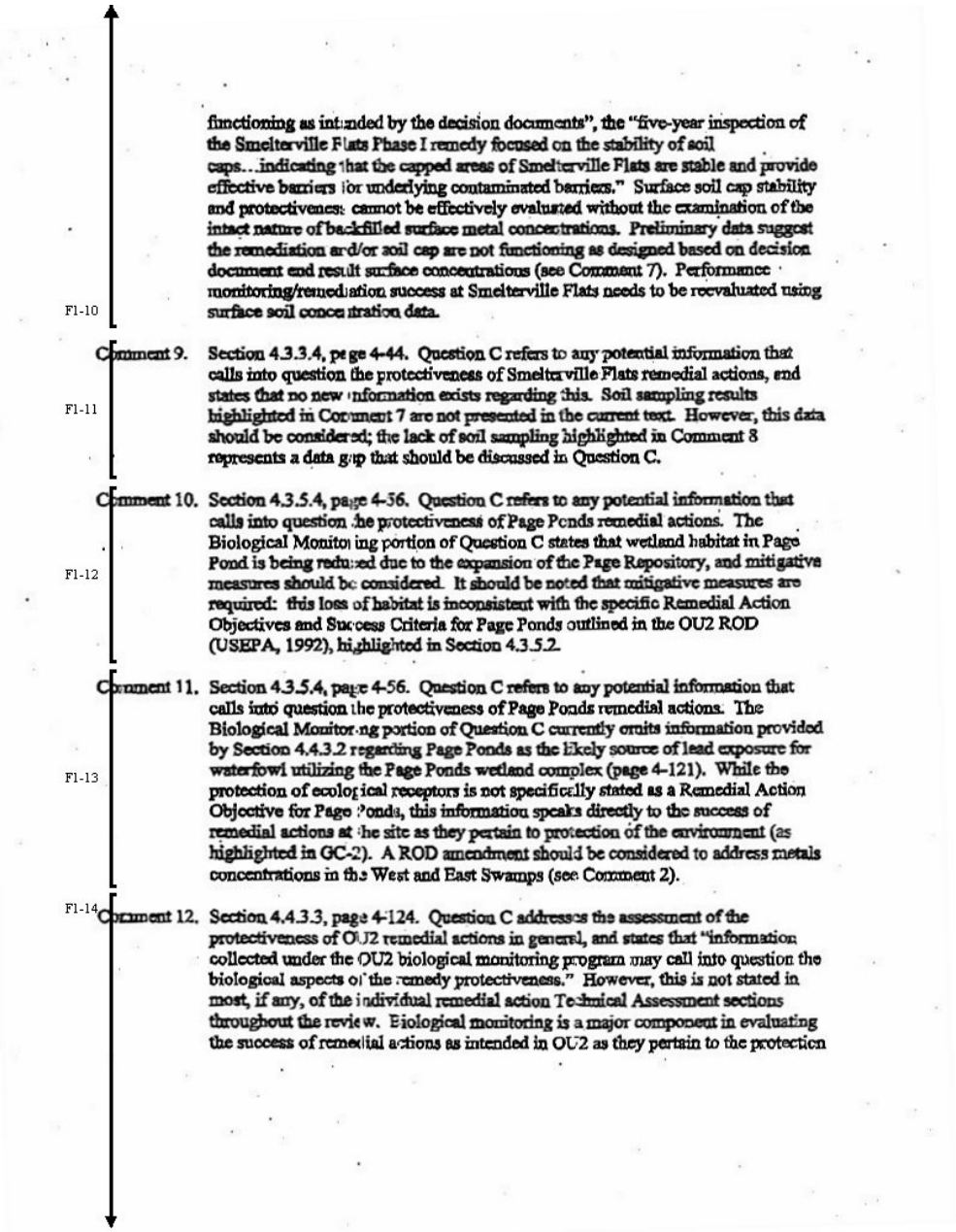
In regard to the biomonitoring sampling results, the preliminary data may reflect sampling in an area that was not remediated as part of the north of I-90 removal action since results found are somewhat typical of SFCDR sediment lead concentrations. The USEPA will, however, consider these results as it evaluates the effectiveness of the Phase I Smelterville Flats removal action.

Response to Comment F1-10

As stated in the response to comment F1-3, the OU2 clean backfill requirement of 100 mg/kg of lead is not the "trigger" for maintenance of a remedy nor is it the standard by which OU2 remedy performance is measured.

As stated in the response to comment F1-9, the Smelterville Flats south of I-90 excavation goal was 1,000 mg/kg lead; the north of I-90 excavation goal was 3,000 mg/kg lead, where feasible.

And as stated under response to comment F1-3, it is not a requirement of the five-year process to conduct confirmational sampling; rather data are gathered and analyzed from a variety of sources to determine remedy performance. See the 4th and 5th paragraphs under response to comment F1-3 for examples of data sources.



functioning as intended by the decision documents", the "five-year inspection of the Smelterville Flats Phase I remedy focused on the stability of soil caps…indicating that the capped areas of Smelterville Flats are stable and provide effective barriers for underlying contaminated barriers." Surface soil cap stability and protectiveness cannot be effectively evaluated without the examination of the intact nature of backfilled surface metal concentrations. Preliminary data suggest the remediation and/or soil cap are not functioning as designed based on decision document end result surface concentrations (see Comment 7). Performance monitoring/remediation success at Smelterville Flats needs to be reevaluated using surface soil concentration data.

F1-10

Comment 9. Section 4.3.3.4, page 4-44. Question C refers to any potential information that calls into question the protectiveness of Smelterville Flats remedial actions, and states that no new information exists regarding this. Soil sampling results highlighted in Comment 7 are not presented in the current text. However, this data should be considered; the lack of soil sampling highlighted in Comment 8 represents a data gap that should be discussed in Question C.

F1-11

Comment 10. Section 4.3.5.4, page 4-56. Question C refers to any potential information that calls into question the protectiveness of Page Ponds remedial actions. The Biological Monitoring portion of Question C states that wetland habitat in Page Pond is being reduced due to the expansion of the Page Repository, and mitigative measures should be considered. It should be noted that mitigative measures are required: this loss of habitat is inconsistent with the specific Remedial Action Objectives and Success Criteria for Page Ponds outlined in the OU2 ROD (USEPA, 1992), highlighted in Section 4.3.5.2.

F1-12

Comment 11. Section 4.3.5.4, page 4-56. Question C refers to any potential information that calls into question the protectiveness of Page Ponds remedial actions. The Biological Monitoring portion of Question C currently omits information provided by Section 4.4.3.2 regarding Page Ponds as the likely source of lead exposure for waterfowl utilizing the Page Ponds wetland complex (page 4-121). While the protection of ecological receptors is not specifically stated as a Remedial Action Objective for Page Ponds, this information speaks directly to the success of remedial actions at the site as they pertain to protection of the environment (as highlighted in GC-2). A ROD amendment should be considered to address metals concentrations in the West and East Swamps (see Comment 2).

F1-13

F1-14 Comment 12. Section 4.4.3.3, page 4-124. Question C addresses the assessment of the protectiveness of OU2 remedial actions in general, and states that "information collected under the OU2 biological monitoring program may call into question the biological aspects of the remedy protectiveness." However, this is not stated in most, if any, of the individual remedial action Technical Assessment sections throughout the review. Biological monitoring is a major component in evaluating the success of remedial actions as intended in OU2 as they pertain to the protection

Response to Comment F1-11

See responses to comments F1-9 and F1-10. As stated in the response to comment F1-9, the use of biomonitoring sampling results will be used during the OU2 Phase I remedy evaluation of the Smelterville Flats. The USEPA has included this clarifying text in Question C for Smelterville Flats (see Section 4.3.3.5 of the final five-year review report).

Response to Comment F1-12

Question C in Section 4.3.5.4 of the final five-year review report has been revised to clarify the requirement for mitigation measures.

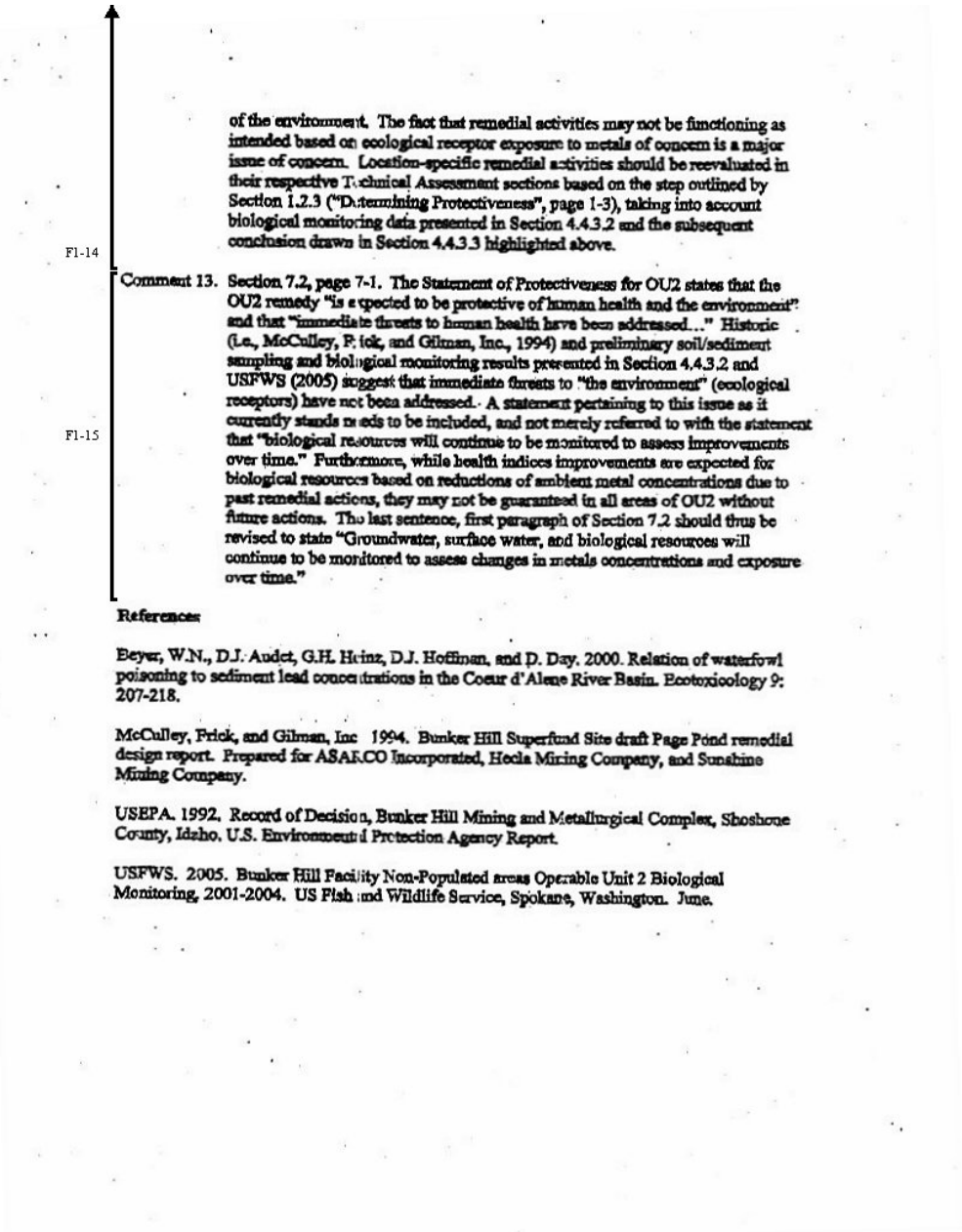
Response to Comment F1-13

Question C in Section 4.3.5.4 of the five-year review report refers the reader to Section 4.4.3 of the report for more information on the biological monitoring results. Therefore, the issue of waterfowl lead exposure from Page Ponds is included in the issues table in the report (see Table ES-5). In addition, as part of the OU2 Phase I remedy evaluation and consideration of a potential OU2 Phase II remedy, additional actions may be considered within the context of site-wide ecological cleanup goals. The USEPA has included this clarifying text in the final five-year review report.

Response to Comment F1-14

As stated above, the goals of the 1992 OU2 ROD did not include protection of ecological receptors. However, as part of the OU2 Phase I remedy evaluation and

consideration of a potential OU2 Phase II remedy, additional actions may be considered within the context of site-wide ecological cleanup goals. The results from biological monitoring will be considered as part of this Phase I evaluation. The USEPA has included this clarifying text in applicable Technical Assessment sections of the final five-year review report. .



of the environment. The fact that remedial activities may not be functioning as intended based on ecological receptor exposure to metals of concern is a major issue of concern. Location-specific remedial activities should be reevaluated in their respective Technical Assessment sections based on the step outlined by Section 1.2.3 ("Determining Protectiveness", page 1-3), taking into account biological monitoring data presented in Section 4.4.3.2 and the subsequent conclusion drawn in Section 4.4.3.3 highlighted above.

F1-14

Comment 13. Section 7.2, page 7-1. The Statement of Protectiveness for OU2 states that the OU2 remedy "is expected to be protective of human health and the environment" and that "immediate threats to human health have been addressed..." Historic (i.e., McCulley, Frick, and Gilman, Inc., 1994) and preliminary soil/sediment sampling and biological monitoring results presented in Section 4.4.3.2 and USFWS (2005) suggest that immediate threats to "the environment" (ecological receptors) have not been addressed. A statement pertaining to this issue as it currently stands needs to be included, and not merely referred to with the statement that "biological resources will continue to be monitored to assess improvements over time." Furthermore, while health indices improvements are expected for biological resources based on reductions of ambient metal concentrations due to past remedial actions, they may not be guaranteed in all areas of OU2 without future actions. The last sentence, first paragraph of Section 7.2 should thus be revised to state "Groundwater, surface water, and biological resources will continue to be monitored to assess changes in metals concentrations and exposure over time."

F1-15

References

Beyer, W.N., D.J. Audet, G.H. Heinz, D.J. Hoffman, and D. Day. 2000. Relation of waterfowl poisoning to sediment lead concentrations in the Coeur d'Alene River Basin. Ecotoxicology 9: 207-218.

McCulley, Frick, and Gilman, Inc. 1994. Bunker Hill Superfund Site draft Page Pond remedial design report. Prepared for ASARCO Incorporated, Hecla Mining Company, and Sunshine Mining Company.

USEPA. 1992. Record of Decision, Bunker Hill Mining and Metallurgical Complex, Shoshone County, Idaho. U.S. Environmental Protection Agency Report.

USFWS. 2005. Bunker Hill Facility Non-Populated areas Operable Unit 2 Biological Monitoring, 2001-2004. US Fish and Wildlife Service, Spokane, Washington. June.

Response to Comment F1-15

As stated above, the goals of the 1992 OU2 ROD did not include protection of ecological receptors. However, as part of the OU2 Phase I remedy evaluation and consideration of a potential OU2 Phase II remedy, additional actions may be considered within the context of site-wide ecological cleanup goals. The USEPA has included this clarifying text in the final five-year review report.

Per the 1992 OU2 ROD, biological monitoring is an important component. The ROD states that as habitat is established, and environmental receptors are exposed to residual soil contamination, monitoring will be conducted to evaluate actual impacts to resident populations.

Biological monitoring has been conducted and will be included in the revised OU2 Environmental Monitoring Plan as discussed in Section 4 of the final five-year review report.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Coeur d'Alene Field Office
1808 N Third Street
Coeur d'Alene, Idaho 83814-3407

In Reply Refer To:
1703(410)

June 28, 2005

EMS
Memorandum

To: Regional Environmental Officer, Office of Environmental Policy and Compliance, Portland

From: District Manager, Coeur d'Alene District

Subject: Bureau of Land Management Comments on the Environmental Protection Agency's Five Year Review Report Public Review Draft of May 2005

Attached are the comments developed by this office to be consolidated with the other agencies.

Signed
Jenifer Arnold for
Lewis M. Brown
District Manager

Authenticated
Katherine McKeown
Administration Team (ID401)

Attachment

cc:
Karl Gebhardt (ISO931)
Bill Kirchner (FWS-Portland)

The Bureau of Land Management Coeur d'Alene District Office comments to the Public Draft Review Draft of the Five-Year Review Report for the Bunker Hill Mining and Metallurgical Complex Superfund Site, May 2005.

F1-16 Page ES-31 Table ES-7 – CIA - The current Affects Protectiveness should be "Y" (see the comments for page 4-52 below).

F1-17 Page ES-31 Table ES-7 – Denver Creek - Regrading at the Mascot Mine was done by the mine owner, Mascot Mining, not by BLM.

F1-18 Page ES-31 Table ES-7 – Sidney – The Date of Action should be "1997- present" the water treatment system is an ongoing project.

F1-19 Page ES-33 Table ES-7 – As part of removal actions for Lower Coeur d'Alene River, add -- Killarney Lake Boat Launch; BLM; 1991-1998; Provided drinking well and vaulted toilets at the site. Covered contaminated shoreline with geotextile fabric overlain with 12-inch rock. Paved the floodplain parking area and road, covered edge areas with topsoil and sodded grass, and redid concrete plank boat launch.

F1-20 Page ES-37 Table ES-9 – Douglas Mine and Millsite – Party Responsible needs to be USEPA because the site is private land that BLM does not have authority for.

F1-21 Page ES-37 Table ES-9 – Amy-Matchless – Party Responsible needs to be USEPA, BLM because the Matchless waste rock dumps and tunnels are on private land that BLM does not have authority for.

F1-22 Page ES-38 Table ES-9 – Nabob – Party Responsible needs to be USEPA, BLM because the mine tunnel discharge and most of the rock dump are on private land that BLM does not have authority for.

F1-23 Page ES-38 Table ES-9 – Grouse Creek – Party Responsible needs to be USEPA, BLM because most of the Star rock dump is on private land that BLM does not have authority for.

F1-24 Page ES-42 Table ES-10 – Rex Mine and Mill and Constitution efforts are ongoing efforts that will not be completed until an undefined time at Rex and at least 2006 for Constitution.

F1-25 Page 4-52 Table 4-29 – The current Affects Protectiveness should be "Y" since the Question C response seems to state that the unlined lagoon needs to be addressed and a lined facility would minimize infiltration (also see comments for page ES-21). On page 4-76 in the CTP section it also states that the unlined sludge ponds on the CIA is one particular component that could impact the protectiveness of the remedy.

5yearComments 1

Response to Comment F1-16

Corrections have been made to Tables ES-5 (Summary of Issues – Operable Unit 2), ES-6 (Summary of Recommendations and Follow-up Actions – Operable Unit 2), 4-29 (Summary of CIA Remedy Issues), and 4-30 (Summary of CIA Recommendations and Follow-up Actions) in the final five-year review report.

Response to Comment F1-17

This change has been made in the final five-year review report.

Response to Comment F1-18

This change has been made in the final five-year review report.

Response to Comment F1-19

This change has been made in the final five-year review report.

Response to Comment F1-20

This change has been made in the final five-year review report.

Response to Comment F1-21

This change has been made in the final five-year review report.

Response to Comment F1-22

This change has been made in the final five-year review report.

Response to Comment F1-23

This change has been made in the final five-year review report.

Response to Comment F1-24

Construction of the remedy for Constitution is scheduled to start in the fall 2005 and be completed by 2006. Construction of the remedy at the Rex site is planned to start in the summer of 2006. These clarifications are reflected in the final five-year review report.

Response to Comment F1-25

See response to comment F1-16.

F1-26 Page 5-36 Table 5-14 – Denver Creek - Regrading at the Mascot Mine was done by the mine owner, Mascot Mining, not by BLM. (Also see comments for Page ES-31 Table ES-7)

F1-27 Page 5-37 Table 5-14 – Sidney – The Date of Action should be "1997- present" the water treatment system is an ongoing project. (Also see comments for Page ES-31 Table ES-7)

F1-28 Page 5-39 Table 5-14 – As part of removal actions for Lower Coeur d'Alene River, add -- Killarney Lake Boat Launch; BLM; 1991-1998; Provided drinking well and vaulted toilets at the site. Covered contaminated shoreline with geotextile fabric overlain with 12-inch rock. Paved the floodplain parking area and road, covered edge areas with topsoil and sodded grass, and redid concrete plank boat launch. (See comments for Page ES-33 Table ES-7 also)

F1-29 Page 5-60 – Informational Health Warning Sign Installation - The overall signing efforts and history of the health warning signs at recreational sites in the Lower Coeur d'Alene should be described and reviewed for effectiveness.

F1-30 Page 6-22 Table 6-7 – Denver Creek - Regrading at the Mascot Mine was done by Mascot Mining not by BLM. (Also see comments for Page ES-31 Table ES-7 and Page 5-36 Table 5-14)

F1-31 Page 6-22 Table 6-7 – Sidney – The Date of Action should be "1997- present" the water treatment system is an ongoing project. (Also see comments for Page ES-31 Table ES-7 and Page 5-37 Table 5-14)

F1-32 Page 6-24 Table 6-7 – As part of removal actions for Lower Coeur d'Alene River, add -- Killarney Lake Boat Launch; BLM; 1991-1998; Provided drinking well and vaulted toilets at the site. Covered contaminated shoreline with geotextile fabric overlain with 12-inch rock. Paved the floodplain parking area and road, covered edge areas with topsoil and sodded grass, and redid concrete plank boat launch. (Also see comments for Page ES-33 Table ES-7 and Page 5-39 Table 5-14)

F1-33 Page 6-28 Table 6-9 – Douglas Mine and Millsite – Party Responsible needs to be USEPA because the site is private land that BLM does not have authority for. (Also see comments for Page ES-37 Table ES-9)

F1-34 Page 6-28 Table 6-9 – Amy-Matchless – Party Responsible needs to be USEPA, BLM because the Matchless waste rock dumps and tunnels are on private land that BLM does not have authority for. (Also see comments for Page ES-37 Table ES-9)

F1-35 Page 6-29 Table 6-9 – Nabob – Party Responsible needs to be USEPA, BLM because the mine tunnel discharge and most of the rock dump are on private land that BLM does not have authority for. (Also see comments for Page ES-38 Table ES-9)

Response to Comment F1-26

This change has been made in the final five-year review report.

Response to Comment F1-27

This change has been made in the final five-year review report.

Response to Comment F1-28

This change has been made in the final five-year review report.

Response to Comment F1-29

The USEPA has expanded the referenced discussion in the final five-year review report to explain that informational health warning signs were posted at locations not practical for active remediation (e.g., beaches with high potential for flooding and recontamination). A reevaluation of the health warning sign language, locations, and effectiveness is a likely component of a Lower Basin recreational management plan/policy which has been recommended for development by the Coeur d'Alene Basin Technical Leadership Group (TLG).

Response to Comment F1-30

This change has been made in the final five-year review report.

Response to Comment F1-31

This change has been made in the final five-year review report.

Response to Comment F1-32

This change has been made in the final five-year review report.

Response to Comment F1-33

This change has been made in the final five-year review report.

Response to Comment F1-34

This change has been made in the final five-year review report. .

Response to Comment F1-35

This change has been made in the final five-year review report.

F1-36 Page 6-29 Table 6-9 – Grouse Creek – Party Responsible needs to be USEPA, BLM because most of the Star rock dump is on private land that BLM does not have authority for. (Also see comments for Page ES-38 Table ES-9)

F1-37 Page 6-33 Table 6-10 – Rex Mine and Mill and Constitution efforts are ongoing efforts that will not be completed until an undefined time at Rex and at least 2006 for Constitution. (Also see comments for Page ES-42 Table ES-10)

Response to Comment F1-36

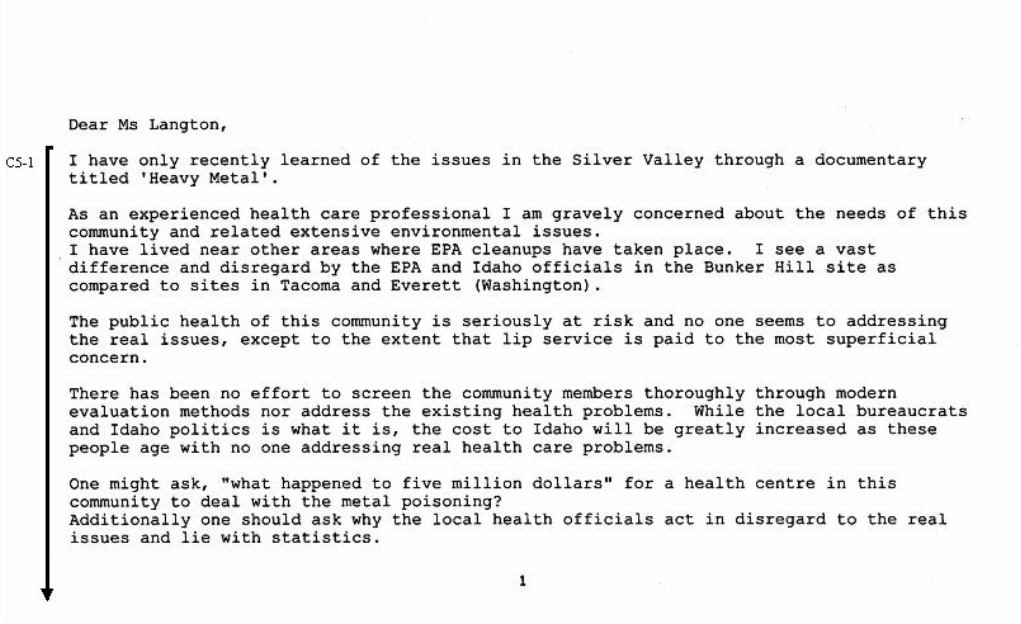
This change has been made in the final five-year review report.

Response to Comment F1-37

Construction of the remedy for Constitution is scheduled to start in the fall 2005 and be completed by 2006. Construction of the remedy at the Rex site is planned to start in the summer of 2006. These clarifications are reflected in the final five-year review report.

Gayle Eversole

Letter - C5. Signatory - Gayle Eversole



Dear Ms Langton,

C5-1 I have only recently learned of the issues in the Silver Valley through a documentary titled 'Heavy Metal'.

As an experienced health care professional I am gravely concerned about the needs of this community and related extensive environmental issues.
I have lived near other areas where EPA cleanups have taken place. I see a vast difference and disregard by the EPA and Idaho officials in the Bunker Hill site as compared to sites in Tacoma and Everett (Washington).

The public health of this community is seriously at risk and no one seems to addressing the real issues, except to the extent that lip service is paid to the most superficial concern.

There has been no effort to screen the community members thoroughly through modern evaluation methods nor address the existing health problems. While the local bureaucrats and Idaho politics is what it is, the cost to Idaho will be greatly increased as these people age with no one addressing real health care problems.

One might ask, "what happened to five million dollars" for a health centre in this community to deal with the metal poisoning?
Additionally one should ask why the local health officials act in disregard to the real issues and lie with statistics.

1

Response to Comment C5-1

The human health effects associated with exposure to heavy metals have been studied extensively at the Bunker Hill Site. Sections 2.2 and 3 of the five-year review report provide a summary of the history of actions taken to address human health issues at the Site starting in the Bunker Hill Box, and the subsequent reductions in blood lead levels observed in community children. The five-year review report also provides a summary of the lead health intervention program conducted by the Panhandle Health District which includes annual blood lead screening services and follow-up for children with elevated blood lead levels.

On a recent visit, my first, to Kellogg, I was amazed at the proximity of the cleanup site to the ski lift, new and expensive condo development, and the general city core. I left after a visit of several hours with burning eyes.

I would like to see the living conditions here addressed in regard to toxins in the soil and toxic dust in the homes.

I would like to se a real screening program for the children and any resident open to it, and related treatment.

I would like to see that the area health officials act in accordance with their mandate of meeting the needs of the people.

Take the lid off the problem and take care of it.

My observations are based on more than thirty years in health care, and years of service
C5-1 in the USPHS/IHS (GS15-16).

Gayle Eversole, DHom,PhD, MH, NP, ND
Moscow ID

L. Rogers and Antonia Hardy

Letter - C1. Signatory - L. Rogers and Antonia Hardy

RognTonIHardy@aol.com

07/01/2005 07:59 AM

To: Tamara Langton/R10/USEPA/US@EPA
cc: Anne Dailey/R10/USEPA/US@EPA, Andrea Lindsay/R10/USEPA/US@EPA, Clifford Villa/R10/USEPA/US@EPA, Ed Moreen/R10/USEPA/US@EPA, Paul Mckechnie/R1/USEPA/US@EPA
Subject: Resending Word Document

Due to some minor software glitches we noticed, this is a re-send of yesterday's Five Year Review Comments. Sorry for any inconvenience. 050627 Hardy 5 year review comments.d

L. Rogers and Antonia M. Hardy
31169 S. Benewah Road
Harrison, Idaho 83833
phone/fax (208) 689-3731
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June 30,2005

RE: EPA'S FIVE-YEAR REVIEW REPORT, PUBLIC REVIEW DRAFT, ISSUED MAY, 2005

-1(B)

C1-1

To begin, EPA likely lessens potential for credibility by stating that *"a public review of the draft report is not required."* (p. 14) EPA mistakes a "high level of interest"---the reason given for allowing public review---for years of anger, shock, dismay, disbelief voiced by diverse groups with non-aligned agendas, unified only by their shared perceptions that EPA abuses and manipulates the public process, and the resulting remedial actions chosen for implementation are not always based on sound science but rather, on political interests (states, tribes, agencies, businesses) and lobby power in Boise and D.C. In short, citizen and landowner voices are circumvented, ignored, given only cursory acknowledgement. We, the Hardys, express little confidence that our comments will be *"incorporated into the final version of the Five-Year Review Report"*, particularly since EPA ends the previous sentence with the clause, *"to the extent possible."* We wonder, also, why the Report is titled "Draft PUBLIC (emphasis ours) Review". Is there another private, agency only Review to which the public will not have access, thus further estranging our voices?

In addition, questions submitted to EPA over the past 7 years have not been addressed by EPA and remain unanswered to this day. We assert that it is not only *"possible"* for EPA to answer these queries, but also a duty for EPA to answer since EPA was the federal sovereign responsible for brokering the precedent use of Railbanking as a Superfund Remedy involving CERCLA. EPA also set up the process (Region 10 Administrator Chuck Findley was the instigator) whereby Union Pacific Contractors became the "liaison" between the governments and our citizens group CART, to obtain answers for us "as an alternative to FOIA." We assert that a number of questions remain unaddressed by EPA to this day.

C1-2

C1-3

In response to this Review, our comments and questions reference specific pages and sections from beginning to end of the draft Document. To start, on Page ES-2-4, the "Brief Site History" does not mention the word "railroad" even one time when discussing metals contamination, yet the railroad slopped, spilled, derailed, and the tracks were moved, thus contributing to the serious dangers to human and environmental health. Although the 72 mile UPRR ROW may be considered comparatively small, it runs the guts of the Basin and *"is not only relevant, but critical"* to evaluate stress on an area created by even *"a relatively small effect."* (Quote from Cumulative Effects Analysis for Avista process.) Further, the Summary does not mention the first UPRR Consent Decree for railroad time critical removals within the Box. Questions submitted to EPA (including to two national EPA Ombudsmen, one Ombudswoman) as to how, legally, the first approximately 7-mile section of railroad remediation work could be completed under a separate consent decree many years prior to issuance of the CITU, have not been answered. In addition, the Summary does not mention the fact that the Union Pacific Superfund lies partially within OU1 and OU2. There should, at minimum, be a sentence or two clarifying this fact.

C1-4

Page ES-7 states that *"potential exposures outside of communities and recreational areas of the Upper Basin and Lower Basin were not addressed by the 2002 OU3 ROD."* Included among these, obviously, is the Union Pacific Superfund, and the discussion of the RI/FS Process (pages ES-6-7) omits mention of the fact the EE/CA stated that UPRR would be discussed in the RI/FS, but then the RI/FS stated the issues had already been discussed in the EE/CA. All discussion of the railroad was, then, excluded from the ROD. EPA has never addressed this classic example of double-speak. And now, EPA states in the Review that *"potential exposures impacting human health include recreational use areas in the Upper Basin and Lower Basin where cleanup actions are not implemented pursuant to the 2002 ou3*

Response to Comment C1-1(B) and C1-1

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(c) requires the USEPA to perform a review of remedial actions that result in hazardous substances, pollutants, or contaminants remaining at the site at least every five years. The purpose of the review is to assure the remedial actions are protective of human health and the environment.

Public comment periods are not required for five-year reviews. However, the USEPA elected to provide the public and stakeholders the opportunity to comment on the draft five-year review report from June 1 to July 30, 2005. All comments that were received on the public review draft were reviewed, and if relevant to the five-year review, resulted in the USEPA providing written responses and/or corrections or clarifications in the final five-year review report. Comments that weren't relevant to the five-year review were not addressed in the five-year review report or this response to comments.

Prior to the publication of the public review draft on June 1, 2005, there were two earlier draft versions of the five-year review report. One was in February 2005 titled "EPA Internal Review Draft" and was for the USEPA and the Idaho Department of Environmental Quality (IDEQ) authors to review. Corrections to this report were then made, and in April 2005 a revised report, titled "External Partner Review Draft," was submitted to other report contributors for review. As mentioned in Section 1.2 of the final report, contributors to the report included the

Panhandle Health District (PHD), the Coeur d'Alene Tribe, the U.S. Fish and Wildlife Service (USFWS), the U.S. Forest Service (USFS), the Idaho Department of Fish and Game (IDFG), the U.S. Army Corps of Engineers (USACE) and the U.S. Bureau of Land Management (BLM). This version of the report was also shared with the Spokane Tribe, the Washington State Department of Ecology, the U.S. Geological Survey (USGS), and the IDEQ and the USEPA contractors. Both of these earlier drafts are available to the public upon request.

Response to Comment C1-2

The USEPA recognizes that railroads and other modes of transportation did contribute to contamination at the Bunker Hill Superfund Site. This has been included in the final five-year review report where applicable.

Response to Comment C1-3

The commenter is correct in that the Executive Summary text does not specifically mention the Union Pacific Railroad (UPRR) consent decree (CD) for the right-of-way (ROW) remedial action within the "Box" (Operable Units 1 and 2), nor does it provide details regarding this action. However, Executive Summary Tables 4 through 6 provide summary information on this action, and Section 4.3.10 of the five-year review reports provides a detailed description and evaluation of the UPPR ROW remedial action that took place in the Box. This remedial action was implemented consistent with its CD and the 1992 OU2 Record of Decision (ROD) which includes performance standards for ROWs.

A response regarding the legality of the UPRR ROW remedial action in the Box is not provided in this response to comments as it is not relevant to this five-year review (see response to comment C1-1 and C1-1(B), first and second paragraphs).

Detailed information on the larger-scale UPRR ROW removal action that took place outside the Box in Operable Unit 3 (OU3) can be found in Section 5.8 (Trail of the Coeur d'Alenes) of the five-year review report.

NOTE TO COMMENTER: The summary of actions for the OU3 UPRR ROW/Trail of the Coeur d'Alenes was moved from Table ES-10 in the public review draft of the five-year review report to Table ES-7 in the final report. Likewise, the summary of issues and the recommendations and follow-up actions for the OU3 UPRR ROW/Trail of the Coeur d'Alenes were moved to Tables ES-8 and ES-9, respectively, in the final report.

Response to Comment C1-4

This comment is not relevant to this five-year review; therefore, a response is not provided (see response to comment C1-1 and C1-1(B), first and second paragraphs).

ROD". These unremeidated areas include, of course, the Trail of the Coeur d' Alenes, yet due to the fact this precedent 10-foot wide Superfund Remedy has been "locked into place," other potential remediations along, around, under, and through the Trail are either impossible or not feasible. Further, ES-7 references as another exposure not included in the ROD *"Subsistence lifestyles, such as those traditional to the Coeur d'Alene and Spokane Tribes."* We wonder why this separation has been made for the Coeur d' Alene Tribe, particularly since Former Chairman Stensgar has verified in public that no subsistence lifestyles exist within Tribal membership today. Further, we note that tribal trust lands on the current Reservation are not on, near, or around the swaths of contamination, so we wonder why the exception from the ROD exists. And finally, we note that is should be the right of any human beings (not just Tribal members) to live as they choose, and that includes a subsistence lifestyle.

C1-4

Table ES-4, page 18 references the *UPRR ROW (excluding the Trail of the Coeur d'Alenes)"* and states the remedial actions there happened from 1995-2000 and then 2000-2005. What does that mean, and why not just say the actions occurred from 1995-2005? Why the differentiation, and where are the records for this work that was done within the ROW?

C1-5

Table ES-9, page 39, references the *"Black Rock Slough Trailhead/Highway 3 Crossing".* Black Rock Slough and portions of the Trail of the Coeur d'Alenes here are within an IDFG Wildlife Management Area. How are acres of asphalt compatible with the objectives of Wildlife Management? How does asphalt enhance wildlife?

C1-6

Table ES-10, page 41: Why does the Table state the ICP is *"Ongoing"* when the OU3 ICP has not yet been established? Why was a Superfund Remedy (the Trail) officially open to the public with no ICP in place? The same Table references *"Ongoing Health and Safety During Remediation.....Ensure that remedial actions are implemented safely and in accordance with applicable regulations and guidance".* As EPA knows from our many (unanswered, unaddressed) letters, this did not happen during Trail construction. Although UPRR and the governments placed "signs" warning of contamination and violations for trespassing on the construction site, there was zero enforcement of rules despite our repeated complaints to the governments via CART's EPA-instigated "liaison." And now, although the Trail has been opened, there is no ICP, no TLOP, and the "Interim Trail Agreement" does not address nor remedy the repeated violations of apparently unenforceable "Trail rules" (no unleashed dogs, stay on trail, no fireworks, respect private property, etc.).

C1-7

Table ES 10, page ES-43 references *"Trail of the Coeur d' Alenes (UPRR Wallace-Mullan Branch ROW Removal Actions), 2000-2004. Under a consent decree, UPRR conducted a response action on the railroad right-of-way and established a recreational trail on the ROW."* This is puzzling, and we ask again for clarification. Were there not two consent decrees, one for the UPRR ROW in the Box, then a second for the rest of the ROW? Please explain the relationship, and how these separate actions relate to Railbanking law.

Table ES-11, page 45 references *"UPRR Removal Action (Trail of the Coeur d'Alenes) Harrison beach sand: Potential erosion of barrier layer may be occurring based on visual observation."* Why were not all other "beaches", within the ROW, some used by families for nearly 100 years, tested? Why was not testing done to determine the outer edges of the contamination along the causeways and out into the Lake? Further, the Table states, *"Use Patterns: Potential unauthorized uses may result in increased exposure to contaminants of concern."* What, precisely, does "Use Patterns" mean? Would this included unauthorized entrances, exits off the remedy? What about the many current unauthorized uses we have reported for years to EPA, without responses?

C1-8

Table ES-12, page 48 references *"Trail of the Coeur d' Alenes Unauthorized Use Patterns: Continue Monitoring"* We have reported to all the governments and trail managers for years about unauthorized use that is both illegal and dangerous, as well as in violation of the May, 1999, EPA Response to Public Comments. To date, we do not have any responses about our serious concerns, and if "monitoring" is going on, it is ineffective in stopping the problems and keeping people on the remedy. (See our later comments on Section 5.8 regarding the UPRR Remedy Trail.)

Response to Comment C1-5

Table ES-4 summarizes OU2 ROD activities and remedial actions. The timeframes displayed are associated with remedial actions and other activities conducted during each of the two five-year review periods for the Bunker Hill Superfund Site. Records for this work have been available in the Box information repositories and the USEPA records center for a number of years.

Response to Comment C1-6

The primary objective of the remedial action at Black Rock Slough Trailhead/Highway 3 Crossing was protection of human health by capping contaminated soil. While the asphalt does not directly "enhance wildlife," trees were planted to block views of the site from a downstream eagles' nest. The additional trees will provide a functional enhancement for wildlife. In addition, building upon the USEPA-funded remedial action at this site, the Idaho Department of Fish and Game, using its own funding, has installed a kiosk with information about the local wildlife and wetland areas.

Response to Comment C1-7

The final five-year review report tables have been revised to indicate that the OU3 Institutional Controls Program (ICP) has not yet been established.

The USEPA is working with the State of Idaho, the Coeur d'Alene Tribe, and local agencies on both the OU3 ICP and the Trail Long-Term Oversight (TLOP) programs.

Response to Comment C1-8

The commenter is correct that there were two distinct response actions implemented by the UPRR on their ROW under two separate CDs. Please refer to Table ES-4 and Section 4.3.10 of the final five-year review report for information on actions taken on the UPRR ROW in the Box. Please refer to Table ES-7 and Section 5.8 of the final report for information on actions taken on the UPRR ROW in OU3. Discussions on how these two CDs relate to one another or how they relate to Railbanking law is not relevant to this five-year review; therefore, a response is not provided.

In regard to the sampling portion of this comment, all areas designated as beaches within the UPRR ROW and the Coeur d'Alene Reservation were sampled. Removal actions were based on sampling results. Removal actions within the Coeur d'Alene Reservation generally consisted of complete contaminant removal within the upland ROW areas with the exception of select causeway areas that lie below low pool elevations. For the remainder of the UPRR ROW outside of the Reservation, the only designated beach that was accessible, sampled, and remediated was the Harrison City Beach.

A discussion on sampling to determine the boundaries of the ROW removal actions is not relevant to the five-year review; therefore, a response is not provided.

Use patterns refer to the repeated types of uses on and off the Trail within the UPRR ROW, and could include patterns of unauthorized or undesirable use. The OU3 UPRR ROW removal action was certified as complete in early 2005. As such, use of the UPRR ROW as a recreational trail is in its infancy and patterns of use are still developing. Identifying, monitoring, and evaluating general use patterns on and off the Trail within the ROW will be critical in identifying issues and solutions to maintain the protectiveness of the remedy. The USEPA believes that monitoring will assist trail managers with future management decisions and TLOP implementation.

C1-9 Five-Year Summary Review Form, page SF-2 references the OU1, OU2 and OU3 remedies and ROD and discusses the need for further information to complete remediations, implement remedies, and evaluate effectiveness. The OU3 paragraphs states that *".....exposure pathways that could result in unacceptable risks are being controlled....ecological remedial actions have not yet been implemented."* By excluding UPRR form the RI/FS and ROD, these statements do not cover the very real risks and damages resulting from the Superfund Remedy Trail that has almost no oversight to enforce rules and that continues to preclude other remediation, as well as to require tons of rock and earth to be dumped (to maintain the Trail) into sensitive ecological areas and dead sloughs. This is unconscionable.

C1-10 Introduction, Page1-1and 2: Please explain in this Document how the Union Pacific Superfund meets the requirements pursuant to CERCLA and the NCP. Since there were only selective removals along the Superfund Trail, and since the ROW still contains high levels of toxic metals and is subject to recontamination by seasonal flooding, why is there apparent "unlimited use" along the Trail? We again point to the lack of rules that are enforceable, lack of ICP, lack of TLOP, as well as to the virtual impossibility to "police" this largely remote, rural recreation facility, particularly after "normal" daylight hours.

C1-11 Section 1.2.2, Page 1-3 references questions to be asked of each remedial action. The Union Pacific Superfund Remedy cannot, we assert, meet the required "yes, yes, no" responses to Technical Assessment Questions. In fact, we request clear and specific documentation to show why the answers are not "no, no, yes."

C1-12 Section 1.2.3, Page 1-3: Since the edges of the swath of contamination were never determined by rigorous testing, and since the planning documents were flawed by erroneous descriptions of land, land ownership, and other as yet unanswered points submitted to EPA, how is the UPRR Superfund "Protective"?

C1-13 Site History, pages 2-8: Although there is one reference to Union Pacific Railroad as a PRP within the OU2 History section, there is no other reference to railroad waste anywhere. Particularly egregious is the lack of reference to railroad contamination in the OU3 History section, since from Harrison south lies in the St. Joe River drainage, and the only known source of contamination there is from years of railroad slopping, spilling, derailment, as well as change from post pile trestles to causeways. In addition, section 2.2.3 (page 7) again states that *"because of the presence of environmental and human health impacts in areas outside of OU1 and OU2 and the limitations of the existing authorities to deal with these impacts, the USEPA initiated a RI/FS for the Coeur d'Alene Basin in 1998."* Again, no mention of Union Pacific and the fact that the railroad is a primary contamination source that was excluded from the RI/FS (after documents stated railroad issues would be discussed therein.) What does *"limitations of existing authorities"* mean? In short, alluding to "recreational areas" that impact human and environmental health and therefore need cleanup actions under EPA mandate is not the same as putting the accountability and responsibility where it belongs: with Union Pacific Railroad.

C1-14 Section 2.3, page 2-9 states "*mining, milling, smelting activities*" created the presence of metals *"in soil, sediment, surface water, ground water, and vegetation throughout the site."* No mention of the railroad, the mode of transportation for these "activities" that contaminated the Basin.

C1-15 Section 2.3.3.1-2.3.3.5 (pages 2-10-2-14 page 2-13: The statement "*Coeur d' Alene Lake is the homeland of the Coeur d'Alene Tribe*" creates a misperception. Although the Lake was traditionally an area inhabited seasonally by the Tribe in historic times, few (if any) Tribal members now call the Lake "home" for a variety of reasons. The lakeshore is now 98% privately owned, and the overwhelming majority of non-Tribal people living on and around the area also call Lake Coeur d'Alene their homeland. Further, this section states *"the beaches and wading areas adjacent to Coeur d'Alene Lake were sampled in 1998 and were found to be safe.....Harrison Beach was remediated as part of the UPRR ROW removal action."* None of the wading areas and "family" beaches south of Harrison were tested, and the edges of the UPRR contamination there has never been determined. In addition, as EPA notes in other places, Harrison Beach will require on-going remediation and monitoring.

Response to Comment C1-9

Based on evaluation of barrier performance and implementation of several institutional controls (ICs), the OU3 UPRR ROW removal action is currently performing as expected per decision documents (e.g., Action Memoranda). Please see Section 5.8 of the final five-year review report for further discussion of this evaluation.

Response to Comment C1-10

All Bunker Hill Superfund Site decision documents (e.g., RODs, action memoranda) and cleanup actions are consistent with CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and relevant guidance documents. This includes the UPRR ROW cleanup actions in both the Box and in the Basin. See Sections 4.3.10 and 5.8 of the final five-year review report for details on the specific actions performed and the evaluation of these cleanup actions, including issues and recommended follow-up actions.

Trail use is limited to the recreational trail, and the trail managers monitor that use. The USEPA is working with the State of Idaho, the Coeur d'Alene Tribe, and local agencies on both the OU3 ICP and the TLOP programs.

Response to Comment C1-11

See Sections 4.3.10 and 5.8 of the final five-year review report for discussions of remedy performance of the Box and Basin UPRR ROW cleanup actions, respectively, including issues and recommended follow-up actions.

As stated in Section 1.2.4 of the final five-year review report regarding determining remedy protectiveness, if the answers to Questions A, B, and C of the technical assessment were *yes, yes,* and *no*, respectively, then the remedy is considered protective. However, if the answers to the three questions were other than *yes, yes,* and *no*, depending on the elements that affect each question, the remedy may be one of the following:

- Protective;
- Will be protective once the remedy is completed;
- Protective in the short-term (current to 1-year); however, in order for the remedy to be protective in the long-term (greater than 1-year), follow-up actions need to be taken;
- Not protective, unless the following action(s) are taken in order to ensure protectiveness; or
- Protectiveness cannot be determined until further information is obtained.

Even if there is a need to conduct further actions, it does not mean that the remedy is not currently protective nor meeting the requirements of decision documents. Normally, the remedy is considered as not protective if:

- An immediate threat is present (e.g., exposure pathways that could result in unacceptable risks are not being controlled);
- Migration of contaminants is uncontrolled and poses an unacceptable risk to human health or the environment;
- Potential or actual exposure is clearly present or there is evidence of exposure (e.g., institutional controls are not in place or not enforced and exposure is occurring); or
- The remedy cannot meet a new cleanup level and the previous cleanup level is outside of the risk range.

The UPRR ROW cleanup actions are currently protective; however, if the follow-up actions identified in the final five-year review report are not taken, the protectiveness of the remedy could be comprised.

Response to Comment C1-12

See responses to comments C1-9 through C1-11 above.

Response to Comment C1-13

As stated under response to comment C1-2, the USEPA recognizes that railroads did contribute to contamination at the Bunker Hill Superfund Site. Although the UPRR is not specifically identified, this acknowledgement of contamination from railroads is included in the Executive Summary and Section 2 of the final five-year review report. See Section 5.8 of the final five-year review report for a discussion of the OU3 UPRR removal action and an explanation of why this removal action was not part of the OU3 Remedial Investigation/Feasibility Study (RI/FS) or OU3 ROD.

Response to Comment C1-14

See responses to comments C1-2 and C1-13.

Response to Comment C1-15

A discussion on who calls the Coeur d'Alene Lake their homeland is not relevant to the five-year review; therefore, a response is not provided.

In regard to sampling of beaches and the boundary of the UPRR ROW south of Harrison, see the second and third paragraphs under response to comment C1-8.

review report accurately describes the role of the Basin Commission and the areas of involvement as agreed to by the parties.

Response to Comment C1-17

Section 3 of the five-year review report evaluates the Selected Remedy for OU 1, which is also known as the populated areas of the Bunker Hill Box. Therefore, Section 3 discusses street rights-of-way (ROWs) adjacent to residential properties. Section 4 of the five-year review report addresses the UPRR ROW in the Box. Section 5.8 of the five-year review report discusses the UPRR ROW removal actions conducted in OU3. As noted in the report, the entire UPRR ROW is currently meeting performance requirements outlined in their respective decision documents (e.g., CDs, Action Memoranda).

Response to Comment C1-18

Comments noted; however, Section 3.2.1.6 of the five-year review report describes the disposal issues in OU1. This is not relevant to the UPRR ROW response actions.

Response to Comment C1-19

Section 3.2.1.7 of the five-year review report discusses general infrastructure needs and issues with respect to the populated areas of the Box (OU1). As noted in Section 5.8 of the final five-year review report, the UPRR's obligation included extensive removals, capping, replacing, and /or repairing culverts, and in some cases retrofitting/installing bridges across drainages. See Section 5.8.6 of the report for additional clarifying text regarding performance of the OU3 UPRR ROW remedy, and the need for a UPRR ROW-related TLOP and a State/Tribal management agreement.

The statements with respect to the Tribe are not relevant to the five-year review; therefore, a response is not provided.

and the environment, particularly for rural landowners who live in sparsely-populated areas. Further, we note EPA's comment regarding community abilities to upgrade and maintain existing infrastructure and maintenance obligations *"...in general, the (local) communities do not have the resources to meet federal infrastructure grant requirements,"* such as the ability to match funds, etc. We add that the Coeur d'Alene Tribe (with what we view as exceptional treatment from EPA and other federal agencies) has been able to apply for and receive tax dollar funded grants to create infrastructure, for which our rural counties cannot compete. Our counties are under-staffed, and they do not have the accessibility to on-site legal expertise as well as necessary lobby power in Boise and D.C. commensurate to that which the Tribe has. We assert, again, that our rural citizen rights to Environmental Justice (as defined by EPA) have been violated, and we request EPA look at its actions within the Basin with the goal to treat us all equally—not preferentially, just equally. We could cite, further, EPA's full funding of the Tribal Natural Resource Department (1998), as well as EPA's funding for the Tribal Integrated Resource Management Plan (on going, although we cannot get information about this program even though we are members of the IRMP Citizens' Advisory Committee). Both of these tax-dollar funded programs are synergistically connected to the Basin issues, and yet they are operated by a Tribal government in which other stakeholders (rural landowners in particular) have no voice, no vote, no representation. In short, our "local CART community" has long expressed concern, but it appears mostly to fall on deaf ears.

C1-19

Section 4.2 OU2 Considerations; Technical Assessment, page 4-13: Again, we note UPRR is within OU1 and OU2 as well as OU3, yet it is handled separately. Further, is it clear that *"maintaining a consistent source of funding"* is a problem for these areas. The CWA and Superfund monies are finite, so it is a monumental challenge to attempt planning for O and M, ICP, ongoing remedial actions. Yet, again, Union Pacific, the PRP responsible for the non-natural transportation of the contaminated ores, fertilizers, and whatever else within the Basin, is off the hook. After "donating" (for a tax write-off) 72 miles, approximately 2,000 acres, of mostly private, reversionary, highly contaminated land for a precedent Superfund Remedy recreational facility, UP is out of negotiations for further cleanup obligations. This is, we assert, unacceptable.

C1-20

Section 5.7 Coeur d' Alene Lake, pages 5-113-5-118: This section does not mention nor does it address the complex issues related to implementation of any Lake Management Plan. Although EPA notes the process to implement such a plan is outside the Superfund process, we assert the many issues involved in cleanup, containment or management of heavy metals in the Lake are inextricably bound with our assertions that our rights to Environmental Justice (as defined by EPA) have been abused. We have written to the governments repeatedly over the years expressing these concerns, and condemning the apparent reality that EPA "forces" citizens to sue for enforcement of our civil rights, our rights to due process and inclusion in decision that affect directly our land and our lives. These issues to which we refer include but are not limited to TSTS, to the fact that maps were changed to reflect an "intact" Reservation boundary where, on earlier official DOI maps, there had been none, to the erroneous data submitted in the EE/CA. For EPA to continue to ignore or circumvent our non-Tribal citizen, reversionary landowner voices, and for EPA to refuse to protect our rights as EPA-identified stakeholders with interest in the Lake, is not acceptable. Quite simply, it would appear that EPA has given and continues to give exceptional treatment to the Tribal government in which we have no voice, no vote, no representation over decisions that affect directly our lives and our land by (and, in) the Lake. We have asked EPA repeatedly for documentation of Executive or Congressional Order supporting EPA's apparent exceptional treatment, going back to the earliest secret UPRR negotiations. We have asked, also, for the same documentation that re-created the 1873 Reservation boundaries, in complete opposition to the reality that the Reservation was opened, the boundary extinguished, by homesteading. Our efforts at inclusion and voice have been sincere and diligent, yet we do not receive answers. We object, strenuously, to EPA's continued efforts to allow the Tribe to speak for landowners south of Harrison, particularly since EPA has not provided any evidence to show "standing" for Tribal employees working on various projects that affect the LMP. For EPA to dismiss and virtually ignore our years of letters, visits, calls by stating the following on page 5-115 is unacceptable: *"The USEPA, the IDEQ, and the Coeur d'Alene Tribe recognize the community interest to implement lake management activities as non-CERCLA actions and the desire expressed by many in the community to eventually delete the lake from the Bunker Hill Superfund Site. Although the collective governments recognize this*

C1-21

Response to Comment C1-20

The UPRR ROW remediation in the Box is discussed in Section 4.3.10 of the final five-year review report. The CD negotiated with UPRR for the 13 miles through the Box was implemented in accordance with the 1992 OU2 ROD and as documented in the Completion of Remedial Action Report/Completion of Work Report.

Statements regarding funds needed for operation and maintenance (O&M), ICP, and ongoing remedial actions and how this relates to the UPRR Company are noted but not relevant to the five-year review; therefore, a response to this portion of the comment is not provided.

Response to Comment C1-21

The USEPA does recognize that there are complex issues that need to be resolved related to development and implementation of an effective, multi-party Lake Management Plan (LMP).

In regard to the other statements expressed in this comment, the USEPA does not believe these are relevant to the five-year review; therefore, a further response is not provided.

desire, their main concern is developing an LMP that will manage contaminated sediments and protect lake water quality since implementing the LMP is a critical step toward deleting the lake." We, rather, want to see CERCLA mandates met, and we want EPA to do its job as the federal sovereign charged with protection of human health and our environment. Instead, we see EPA shirking its duty by funneling monies and influence (illegally, we assert) through the Tribal government and employees to our citizen/landowner/EPA-identified stakeholder detriment. When will EPA deal with the fact that there was no Tribal presence (that has led to our exclusion) in our area until this secretly-hatched precedent UPRR Superfund Remedy and EPA's almost concurrent funding of the Tribal Natural Resource Department. Although we may agree heartily with much of what EPA wants, we abhor the underhanded and, we assert, illegal violations of laws within a federalized project, and continued violations of our non-Tribal citizen rights.

C1-21

Section 5.8. 1, UPRR REMOVAL ACTION (TRAIL OF THE COEUR D'ALENES), pages 5-119-5-130: General comment: This section on a major federalized removal action within a 2,000 acre, 72 mile long (including Box removals covering 7 miles under a separate consent decree) strip of land saturated with ore concentrate (in effect, the repository with the largest perimeter in the Basin) is a cursory, incomplete afterthought, and an insult to the five year review process. This action cost over $100 million! Other sections of this draft on actions costing 1/100th that much are in far more depth, and far more professionally documented. This draft on UPRR Removals has nowhere near the information needed to qualify for "release" in a draft review document created after EPA "certification" of the remedy.

C1-22

5.8.1. DECISION DOCUMENT, page 5-119:
"The elements of the removal action were selected by the Governments based on the analysis of alternatives presented in the EE/CA." Hardy Comment: This is incorrect. The EE/CA only presented two alternatives - leave a highly contaminated 72 mile swath of railroad contamination alone, or preserve the contamination perched up above the water table to seep into the environment in perpetuity. The EE/CA only analyzed one alternative – the trail. This is in violation of NEPA and CERCLA, wherein alternatives must be given public scrutiny. Also, Conversation Strategy for Spokane River Basin Wetlands (IDFG, 1999) states *"Construction of roads and railroads may fragment water and gene flow in wetlands. Railroads servicing mining communities were constructed through wetlands associated with the chain lakes in the lower Coeur d'Alene River system. The dikes along railroad beds alter water levels and hydrologic flows."* This effect on the environment was not even mentioned, much less addressed, in the EE/CA.

C1-23

5.8.2.1, BACKGROUND AND DESCRIPTON OF ACTIONS – INTRODUCTION, pages 5-119-5-120:
"The project resolved historical mining-related environmental issues and returned the site to a beneficial use by creating an economic benefit for local communities through the building of a recreational trail." Hardy Comment: This is incorrect, misleading, and reveals EPA's continued bias toward some stakeholders in the Basin. There is far more demonstrable negative economic impact to the property values of numerous owners that own most of the land this easement passes over, than there is any demonstrable economic benefit to local communities. And the trail related issues (to name a few) of unleashed dogs, trespassers, litter, noise all serve to decrease our quality of life, as well as our property values. Also, the project also should have addressed railroad-related environmental issues. The most significant UPRR environmental damage is tens of miles from any mines, and the ROD addresses downstream mining related issues.

C1-24

5.8.2.2. PRE-REMEDY CONTAMINATION, page 5-120:
"Analytical data from the representative soil sampling along the ROW verified the existence of tailings in the floodplain, including a layer beneath the railroad subgrade embankment in some locations." Hardy Comment: We presume the point of this statement is that railroad spillage is co-mingled with floodplain deposits. True, but ROW contamination levels average three times higher than floodplain levels. Also, the subgrade replaced post pile trestles in many stretches after three decades of ore concentrate haulage. The unremediated layer beneath the subgrade could be railroad spillage UPRR was not compelled to clean up. In addition to moving the tracks up to 1/4 mile within the historic ROW during conversion to causeways, the Trail lies on private land in places.

C1-25

6

Response to Comment C1-22

The USEPA believes that the information in Section 5.8 of the five-year review report adequately discusses the UPRR removal action for the purpose of conducting a five-year review.

Response to Comment C1-23

As stated in Section 5.8.1 of the five-year review report, the elements of the removal action were selected by the Governments based on the analysis of alternatives presented in the EE/CA. A range of alternatives presented and for which comparative analysis was performed in the EE/CA included each of the following: No Action, Institutional Controls (ICs), Protective Barriers, Removal and Disposal/Consolidation, or Treatment. The EE/CA evaluated environmental impacts associated with the alternative considered. The Selected Remedy involved a combination of multiple alternatives presented. This section in the final five-year review report has been revised to clarify the EE/CA alternatives analysis that was conducted.

Response to Comment C1-24

The USEPA believes that that information contained in Section 5.8.2.1 of the five-year review report is accurate.

Response to Comment C1-25

The statements contained in this comment are not relevant to the five-year review; therefore, a response is not provided.

C1-26

Section 5.8.5, ACTIONS SINCE LAST FIVE-YEAR REVIEW; page 5-123. CERTIFICATION, 5.8.5.1, page 5-123: *"Following the pre-certification inspections and resolution of issues identified in those inspections, the UPRR submitted Completion of Obligation Reports (CORs) for each portion of the work. Those reports have been reviewed and approved by the Governments and the Action certified in early 2005."* Hardy Comment: Some or all of the CORs are in the document repositories, but we cannot find documents showing approval or certification by the EPA. Please supply those documents.

C1-27

Section 5.8.5.2; REMAINING ACTIVITIES, page 5-123-124: *"With completion of the Response Action, the ROW will transfer to the State and the Coeur d'Alene Tribe pursuant to the CITU".* Hardy Comment: EPA states the Action was certified. Why hasn't the transfer happened? Further, *"The State and Tribe will share the management of the ROW under a management agreement between the State and Tribe."* Hardy Comment: People have been riding the trail for over two years. Why hasn't the agreement been completed? If and when it is completed, please provide us with a copy.

C1-28

Continuing, *"As part of the risk management approach for the ROW, the EE/CA contemplated an ICP for the ROW…General details of this ICP program are provided in the Trail Long-Term Oversight Program Manual (TerraGraphics 2005), the final details of this program are being worked out jointly by the IDEQ and the Coeur d'Alene Tribe."* Hardy Comment: We have reviewed a draft of this document dated August 2002. Why in the world hasn't this document been completed yet? If and when it is completed, please provide us with a copy, as requested before. The 2002 Draft TLOP on page 17 states *"The EPA will direct UPRR to conduct any studies and investigations necessary for the Government Group (IDEQ, IDPR, Tribe) to conduct reviews of the effectiveness of the response action in protecting human health and the environment at least every five years (see paragraphs 36 of the CD and Section 2.7.3.12 of the SOW.)"* Please explain the relation of this action called for in the draft TLOP with this present second Bunker Hill five year review.

C1-29

Section 5.8.6,;TECHNICAL ASSESSMENT OF UPRR REMOVAL ACTION, pages 5-123-124 *"Surface water ditches and culverts have been cleaned out as needed and are performing adequately."* Hardy Comment: This is blatantly false at the O'Gara and Shingle Bay bridges. The new bridge design is insufficient for adequate performance with the openings at normal summer pool, and during low lake level are far too constricting for proper flow. The old railroad culvert at O'Gara Bay that was ripped out performed better. The debris has never been cleaned out.

Recent Photo at the O'Gara Bay Bridge showing inadequate performance and now clean out.

"Trail managers continue to monitor trail access and use patterns…Should unauthorized use patterns develop, management and use strategies will need to be implemented to curb and change those patterns…

7

Response to Comment C1-26

The Completion of Obligation Reports (CORs) were completed and placed in the Basin document repositories (also called information repositories) in late 2004, and certification was completed in January 2005. Certification letters have also been placed in the Basin document repositories. Section 5.8.4.1 of the final five-year review report has been updated with this information. See Section 1.3.2 of the final five-year review report for the addresses of the Box and the Basin document/information repositories.

Response to Comment C1-27

The requirements for certification are described in Section 5.8.4.1 of the five-year review report. Issues related to title transfer are being resolved by the UPRR, the State of Idaho, and the Coeur d'Alene Tribe. Title transfer is not part of the certification requirements, but rather is a condition of the Certificate of Interim Trail Use. Upon resolution of those outstanding issues, the title transfer will occur. Section 5.8.4.2 of the final five-year review report has been revised to include resolution of encroachment issues as a remaining activity.

Response to Comment C1-28

The State and the Tribe are working out the final details on how to best implement a barrier maintenance plan that will provide the necessary protection and long-term management program within the TLOP. Work conducted under the TLOP is separate from work conducted as part of the five-year review process. If additional studies, sampling or investigation is needed to support an evaluation of remedy performance, the USEPA will work

with the UPRR to complete that work in accordance with paragraph 36 of the CD. At a minimum, the USEPA will continue to conduct a review of the UPRR ROW removal action in future five-year reviews. Section 5.8.4 of the final five-year review report notes that this is the first five-year review for the UPRR ROW removal action, and additional studies and investigations may be conducted.

Response to Comment C1-29

A component of the Flood Damage Repair Element of Work prescribed re-installation of culverts that had been washed out. The UPRR, partially in response to public comments, agreed to design and install culverts in Shingle and O'Gara bays to better allow natural flows and connectivity between the lake and the bays on the upland side of the UPRR embankment. The inverts of the bridge channels were designed to be consistent with adjacent bay floor elevations. Section 5.8.3 of the final five-year review report has been updated to discuss the installation of those bridges.

With respect to trail use patterns, trail managers are responsible for assessing use patterns, and developing and implementing future management strategies to curb undesirable uses. Your comments have been directed to the trail managers.

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Hardy Comment: We see no evidence of this happening near where we live. The Tribal Trail Manager has not responded to emails, and the State Trail Manager continues to refer us to the Tribal Manager, saying he "cannot answer." Yet, according to the May, 1999 Response to Comments, there is to be unified practices along the entire Trail. Unauthorized access across private land is endemic at the Thomas property at the east end of the Chatcolet causeway, and at the Maucieri property at O'Gara Bay. We see no evidence of trail managers doing anything about it; they are neither monitoring, nor enforcing. To the contrary, Tribal and State lawyers brought pressure to bear on Eastside Highway District to interfere with Ms. Maucieri's District-approved right to gate her private property off of the ROW to restrict trespass. There was no objection by UPRR contractors who were given access keys during trail removals and construction to use the gate. Please supply the Trail manager monitor reports that document this unauthorized use, and any correspondence pertaining to this issue.

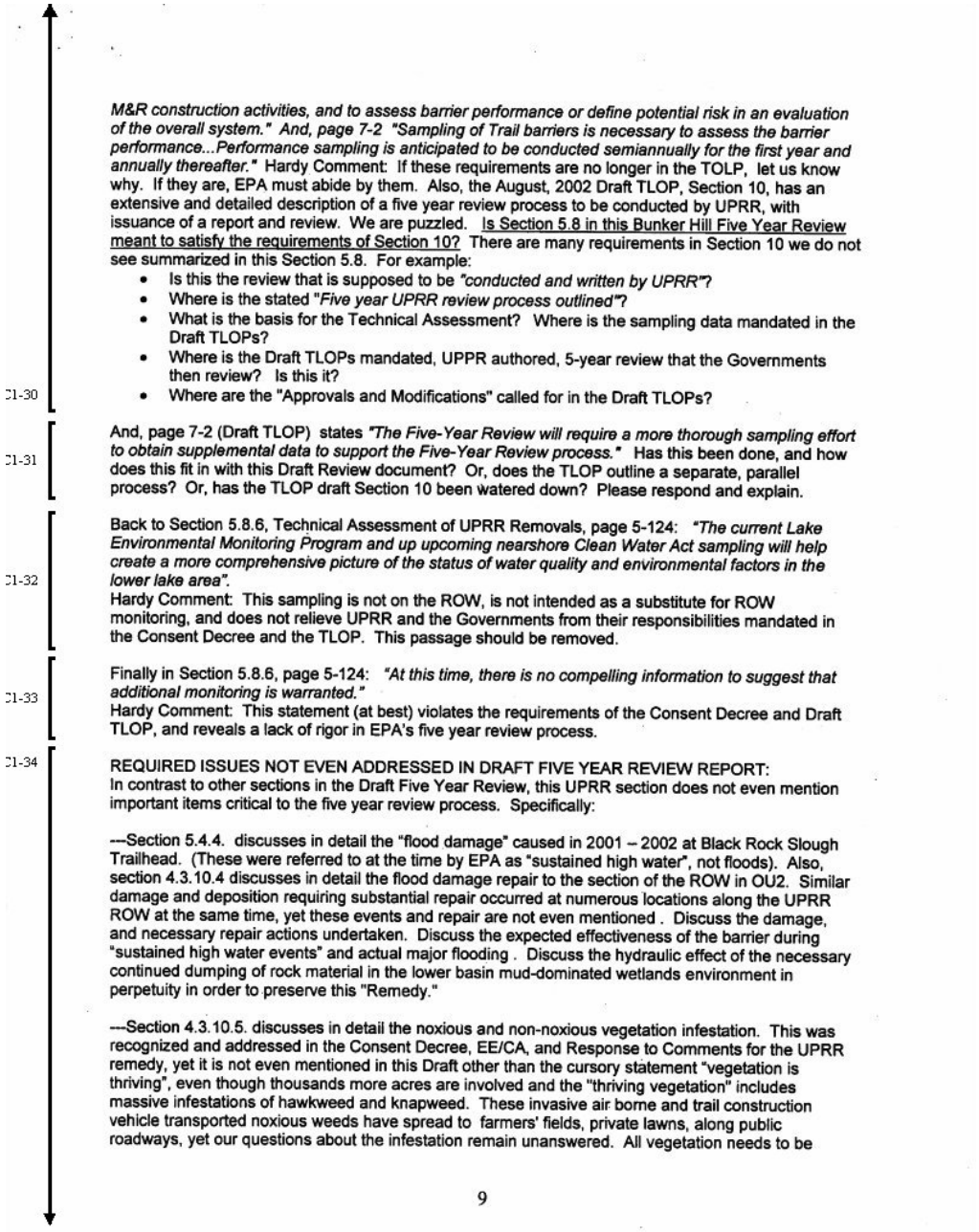
21-29

21-30

"A few small seeps have been identified along the shoreline of Lake Coeur d'Alene near O'Gara Bay. Hardy Comment: This is inaccurate and misleading. Restate to read: Post-remediation iron oxide-stained sediment has been identified in the ROW during low water levels in Lake Coeur d'Alene adjacent to the Chatcolet Causeway, in Cal's Pond, and at O'Gara Bay on the lake and wetlands sides of the causeway. This iron staining is fed, in part, from seeps emanating from the ROW subembamkment, indicating a breach in the seal. *"Seeps are a natural phenomena in altered and natural environs, and are a result of hydraulic head pressure differential across a boundary and the system equilibrating that differential. In this particular case, the seeps occur during low lake pool elevations when the lake level drops faster than some of the wetland on the upland side of the rail embankment."* Hardy Comment: This generic explanation of seeps is unnecessary, lecturing, and patronizing. Further, it reveals that EPA does not understand that seeps are not the issue, but the presence and extent of the iron oxide-stained sediments is the issue. *"Given the small magnitude of these seeps and the millions of tons of metals in the lake bed, it is not believed that they are a major contribution to the water quality degradation, if measurable at all."* Hardy Comment: Again, the issue is iron oxide-stained sediment, which is more widespread than the seeps. And, maybe they are not a major contribution to the water quality degradation. But, for EPA to make an arbitrary judgment call as to their significance without sample analysis is a major departure in procedure, and violates numerous articles in the Consent Decree and supporting documents. In addition, our reports to the EPA Superfund hotline (well over a year ago) were at first not answered. When finally a person responded, the answer was double-speak and the follow-up process was never revealed to us. Further, the procedure established in the Statement of Work to the Consent Decree, and documented in the Completion of Obligation Reports (CORs) is clearly one of visual identification with confirmation sampling. EPA saw the iron-oxide stained sediment, but there is, apparently, no confirmation sampling. The East Removals COR states on page 36 *"The extent of the removals was also modified in the field based on the visual identification of mine waste contaminated material…In some cases confirmation sampling was performed to confirm that material having lead concentrations above 1,000 mg/kg had been removed."* This procedure is not being followed now – EPA is making an arbitrary judgment call as to significance without sample analysis, a major violation of mandated procedure. We infer EPA did not notice these iron oxide stained areas in their inspections either because the lake level was too high, or the barrier has failed. In addition, we had reported the seeps long before the certification, so apparently this information was not disseminated. At any rate, next winter is time for EPA to compel comprehensive sampling and analysis as called for in the Consent Decree. Also, these sediments are all in the vicinity of the "Causeway Sections" described on page 37 of the East Removals COR: *"The characterization sampling indicated that approximately 2,100 feet of the ROW had lead concentrations that were in excess of 1,000 mg/kg at depths that extended to approximately 20 feet…."Based on the approved Causeway Resolution the removals of mine waste contaminated material within the causeway sections were not required to extend below an elevation of 2126 ft….The combined 10 feet of structural fill and asphalt barrier as well as the riprap armoring serves as a barrier to isolate any remaining mine waste contaminated material that was not excavated below the elevation of 2126 ft."* Hardy Comment:: We submit the riprap armoring is not an effective barrier, and this iron oxide sediment is a result. It should be sampled as directed in the Consent Decree and TLOP. Then the governments can assess the effectiveness of the barrier, and the significance of the iron oxide-stained sediment. Further, the August 2002 Draft TLOP clearly spells out procedures for future sampling; Page. 7-1: "*Sampling and monitoring can be used to confirm compliance for remedy M&R and non-*

Response to Comment C1-30

The USEPA believes the description of the seeps as captured in the final five-year review report is accurate. The comments on the TLOP are addressed in response to comment C1-31.



M&R construction activities, and to assess barrier performance or define potential risk in an evaluation of the overall system." And, page 7-2 "Sampling of Trail barriers is necessary to assess the barrier performance...Performance sampling is anticipated to be conducted semiannually for the first year and annually thereafter." Hardy Comment: If these requirements are no longer in the TOLP, let us know why. If they are, EPA must abide by them. Also, the August, 2002 Draft TLOP, Section 10, has an extensive and detailed description of a five year review process to be conducted by UPRR, with issuance of a report and review. We are puzzled. Is Section 5.8 in this Bunker Hill Five Year Review meant to satisfy the requirements of Section 10? There are many requirements in Section 10 we do not see summarized in this Section 5.8. For example:

- Is this the review that is supposed to be *"conducted and written by UPRR"*?
- Where is the stated *"Five year UPRR review process outlined"*?
- What is the basis for the Technical Assessment? Where is the sampling data mandated in the Draft TLOPs?
- Where is the Draft TLOPs mandated, UPPR authored, 5-year review that the Governments then review? Is this it?
- Where are the "Approvals and Modifications" called for in the Draft TLOPs?

C1-30

And, page 7-2 (Draft TLOP) states *"The Five-Year Review will require a more thorough sampling effort to obtain supplemental data to support the Five-Year Review process."* Has this been done, and how does this fit in with this Draft Review document? Or, does the TLOP outline a separate, parallel process? Or, has the TLOP draft Section 10 been watered down? Please respond and explain.

C1-31

Back to Section 5.8.6, Technical Assessment of UPRR Removals, page 5-124: *"The current Lake Environmental Monitoring Program and up upcoming nearshore Clean Water Act sampling will help create a more comprehensive picture of the status of water quality and environmental factors in the lower lake area".*
Hardy Comment: This sampling is not on the ROW, is not intended as a substitute for ROW monitoring, and does not relieve UPRR and the Governments from their responsibilities mandated in the Consent Decree and the TLOP. This passage should be removed.

C1-32

Finally in Section 5.8.6, page 5-124: *"At this time, there is no compelling information to suggest that additional monitoring is warranted."*
Hardy Comment: This statement (at best) violates the requirements of the Consent Decree and Draft TLOP, and reveals a lack of rigor in EPA's five year review process.

C1-33

REQUIRED ISSUES NOT EVEN ADDRESSED IN DRAFT FIVE YEAR REVIEW REPORT:
In contrast to other sections in the Draft Five Year Review, this UPRR section does not even mention important items critical to the five year review process. Specifically:

C1-34

---Section 5.4.4. discusses in detail the "flood damage" caused in 2001 – 2002 at Black Rock Slough Trailhead. (These were referred to at the time by EPA as "sustained high water", not floods). Also, section 4.3.10.4 discusses in detail the flood damage repair to the section of the ROW in OU2. Similar damage and deposition requiring substantial repair occurred at numerous locations along the UPRR ROW at the same time, yet these events and repair are not even mentioned . Discuss the damage, and necessary repair actions undertaken. Discuss the expected effectiveness of the barrier during "sustained high water events" and actual major flooding . Discuss the hydraulic effect of the necessary continued dumping of rock material in the lower basin mud-dominated wetlands environment in perpetuity in order to preserve this "Remedy."

---Section 4.3.10.5. discusses in detail the noxious and non-noxious vegetation infestation. This was recognized and addressed in the Consent Decree, EE/CA, and Response to Comments for the UPRR remedy, yet it is not even mentioned in this Draft other than the cursory statement "vegetation is thriving", even though thousands more acres are involved and the "thriving vegetation" includes massive infestations of hawkweed and knapweed. These invasive air borne and trail construction vehicle transported noxious weeds have spread to farmers' fields, private lawns, along public roadways, yet our questions about the infestation remain unanswered. All vegetation needs to be

9

Response to Comment C1-31

The TLOP will define how the remedy along the trail is maintained by the State and the Tribe. It is currently in draft form and is scheduled to be completed as soon as possible by the State and the Tribe. As stated under response to comment C1-28, work conducted under the TLOP is separate from work conducted as part of the five-year review process.

Response to Comment C1-32

The USEPA believes that the Lake Environmental Monitoring Program (LEMP) and Clean Water Act (CWA) sampling will provide useful information for the lower lake area.

Response to Comment C1-33

See responses to comments C1-30 and C1-32.

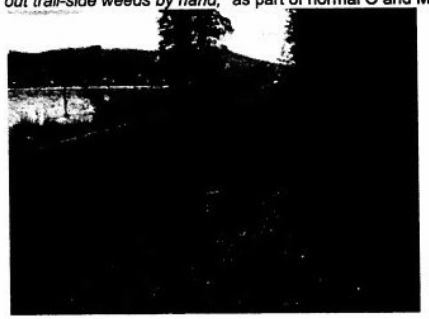
Response to Comment C1-34

Section 5.8.3 of the final five-year review report has been updated to address flood damage. The trail remedy includes provisions for repairs when flood damage occurs as described in the maintenance and repair (M&R) Work Plan.

Section 5.8.4.2 of the final five-year review report was updated to clarify noxious weed management plans and obligations.

Section 5.8.3 of the final five-year review report was updated to discuss the sustained high water event. All data that supported the EE/CA were included in the administrative record. Since the EE/CA is a CERCLA action, an Environmental Impact Statement under the National Environmental Protection Action is not required.

controlled in general because of a fire hazard, and noxious vegetation, in particular, must be eradicated (after securing consent of landowners). Add a discussion of what has been done, and what needs to be done in perpetuity. Please recall that EPA's May, 1999 "Response to Public Comments stated that *"Trail Managers will pull out trail-side weeds by hand,"* as part of normal O and M.



Unregulated noxious and other vegetation growing through the barrier at O'Gara Bay

—Section 5.8 of the East Removals COR discusses at length the blowout repair at Station 1120+00. This was a major barrier failure during one of the "sustained high water" or "normal Spring runoff" events, and took major engineering, including the dumping of many tons of boulders in the mud-dominated lower basin. Discuss why the barrier failed, how this incident will affect forecasting future failures, and the hydraulic effect of the boulders in this mud dominated area in perpetuity.

—Page 39 of the East Removals COR states: *"Section 2.4.3.3.e. of the SOW required additional characterization sampling at…MM 25.13. The 1998 sample taken in the center of the tracks indicated lead concentrations within six to 18 inch interval that were above the allowable limit of 84,600 mg/kg for disposal in the SPA."* Hardy Comment: We are aghast! A sample over 84,000 mg/kg on or near our family property? After review, we cannot find reference to this sample data in the EE/CA, or any subsequent document, including this review. The EE/CA states that contamination should be limited to ballast in this area, and surrounding soil levels should not be over 84 mg/kg. We assert these data should have been made public, and included in the EE/CA that was substituted for the NEPA EIS that, we assert, should have been done. C1-34

SECTION 5.8. TABLES C1-35
Hardy Comment: These reveal this section to be a cursory, incomplete afterthought, and an insult to the five year review process. The draft should never have been released with such ill-prepared tables.

C1-36 Table 5-59 Remedy Issues - add:

- Potential erosion from flood damage of all causeway sections from Mullan to Chatcolet
- Potential deposition from flooding of contaminated sediment on trail barriers and asphalt
- Certification documentation, MOA, TLOP not complete.
- Governing Board not set up. (We have requested information from the governments for several years, in order to participate in this process.)
- Next Five Year Review Schedule needs to be issued.
- Quarterly and post storm inspections must be conducted and made public
- Quarterly and annual reports must be completed and made public
- Coordination of ICP with OU3 must be conducted with public and landowner participation
- Community relations portion of ICP must be conducted with heavy public involvement

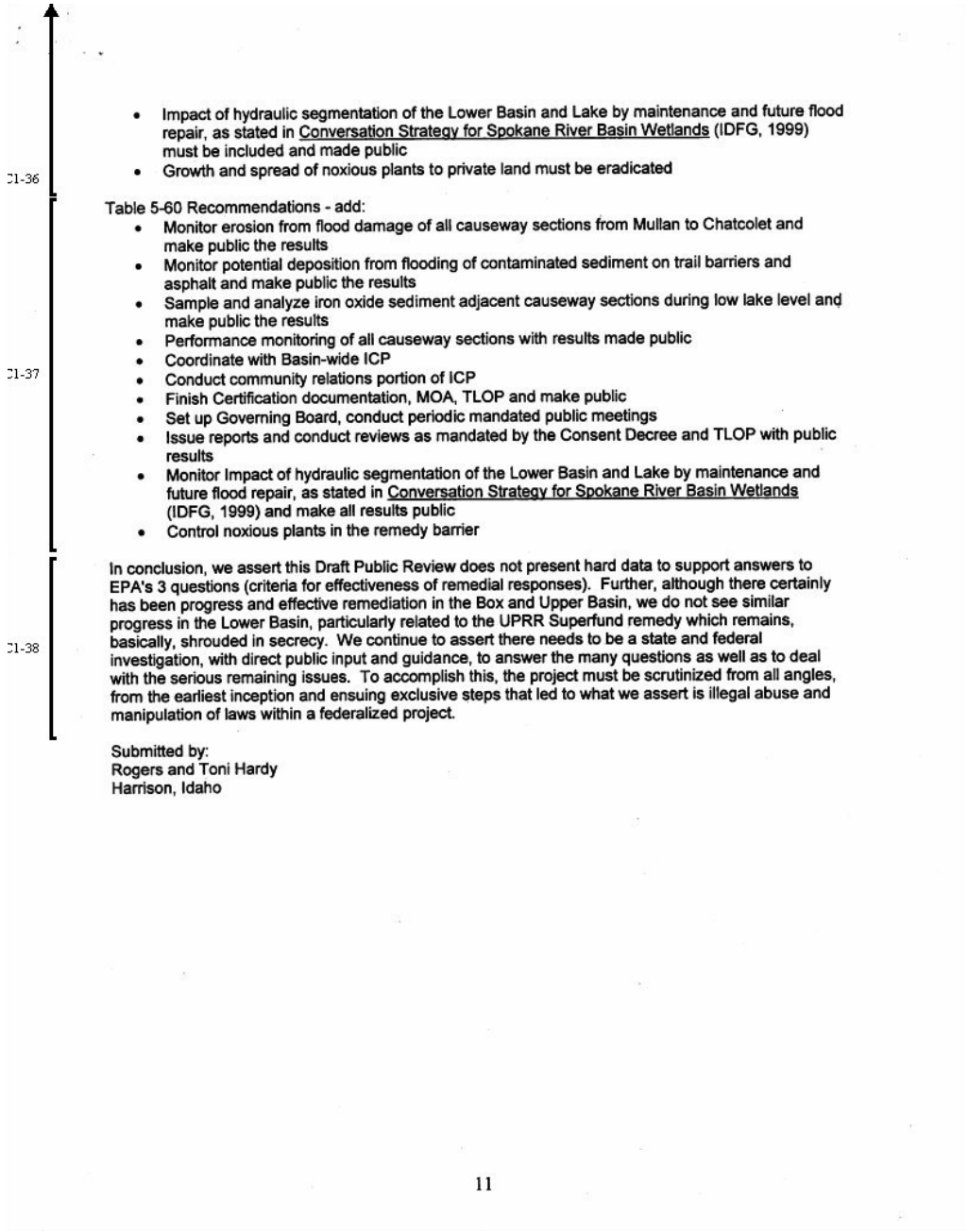
10

Response to Comment C1-35

The USEPA believes the information contained in the tables in Section 5.8 of the five-year review report is accurate.

Response to Comment C1-36

Table 5-59 in the public review draft of the five-year review report is now Table 5-67 in the final report. The same two issues are in both versions of the report. There are no additional UPRR remedy issues identified in the final report.



- Impact of hydraulic segmentation of the Lower Basin and Lake by maintenance and future flood repair, as stated in Conversation Strategy for Spokane River Basin Wetlands (IDFG, 1999) must be included and made public
- Growth and spread of noxious plants to private land must be eradicated

C1-36

Table 5-60 Recommendations - add:

- Monitor erosion from flood damage of all causeway sections from Mullan to Chatcolet and make public the results
- Monitor potential deposition from flooding of contaminated sediment on trail barriers and asphalt and make public the results
- Sample and analyze iron oxide sediment adjacent causeway sections during low lake level and make public the results
- Performance monitoring of all causeway sections with results made public
- Coordinate with Basin-wide ICP
- Conduct community relations portion of ICP
- Finish Certification documentation, MOA, TLOP and make public
- Set up Governing Board, conduct periodic mandated public meetings
- Issue reports and conduct reviews as mandated by the Consent Decree and TLOP with public results
- Monitor Impact of hydraulic segmentation of the Lower Basin and Lake by maintenance and future flood repair, as stated in Conversation Strategy for Spokane River Basin Wetlands (IDFG, 1999) and make all results public
- Control noxious plants in the remedy barrier

C1-37

In conclusion, we assert this Draft Public Review does not present hard data to support answers to EPA's 3 questions (criteria for effectiveness of remedial responses). Further, although there certainly has been progress and effective remediation in the Box and Upper Basin, we do not see similar progress in the Lower Basin, particularly related to the UPRR Superfund remedy which remains, basically, shrouded in secrecy. We continue to assert there needs to be a state and federal investigation, with direct public input and guidance, to answer the many questions as well as to deal with the serious remaining issues. To accomplish this, the project must be scrutinized from all angles, from the earliest inception and ensuing exclusive steps that led to what we assert is illegal abuse and manipulation of laws within a federalized project.

C1-38

Submitted by:
Rogers and Toni Hardy
Harrison, Idaho

11

Response to Comment C1-37

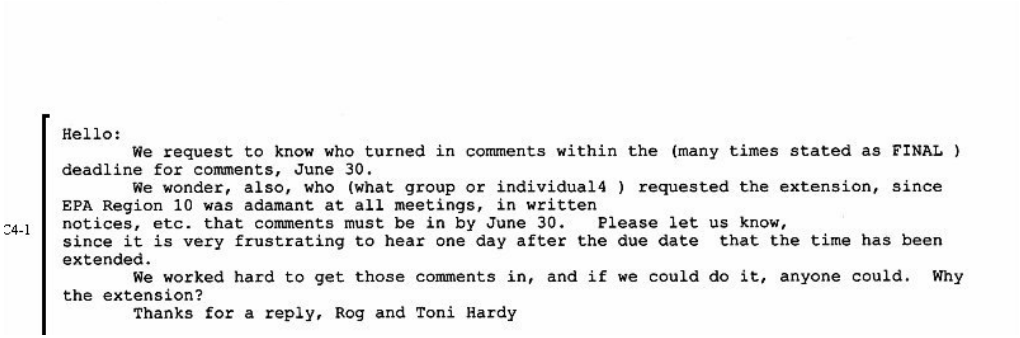
Table 5-60 in the public review draft of the five-year review report is now Table 5-68 in the final report. Two additional recommendations have been included in Table 5-68 in the final report.

Response to Comment C1-38

The USEPA believes the activities and findings described in the final five-year review report are accurate. The trail will continue to be monitored through regular and event-driven inspections and management. As the remedy is subjected to the test of time, natural forces, and influence from development and use, more rigorous analyses may be appropriate.

L. Rogers and Antonia Hardy (#2)

Letter - C4. Signatory - L. Rogers and Antonia Hardy



C4-1

Hello:
We request to know who turned in comments within the (many times stated as FINAL) deadline for comments, June 30.
We wonder, also, who (what group or individual4) requested the extension, since EPA Region 10 was adamant at all meetings, in written notices, etc. that comments must be in by June 30. Please let us know, since it is very frustrating to hear one day after the due date that the time has been extended.
We worked hard to get those comments in, and if we could do it, anyone could. Why the extension?
Thanks for a reply, Rog and Toni Hardy

Response to Comment C4-1

Those who turned in comments by June 30, 2005, were:

- Senator Joyce Broadsword
- Rog and Toni Hardy
- Terry Harwood, Basin Commission Executive Director
- HellerEhrman LLP (Hecla)
- Gayle Eversole
- Robert McCroskey
- Panhandle Health District
- Ron Roizen
- Sierra Club, Upper Columbia River Group
- U.S. Department of Interior (USDOI)
- Dick Wandrocke
- Paul Woods, U.S. Geological Survey (USGS)

In regard to extension of the public comment period, Michael Thorp of HellerEhrman LLP, on behalf of the Hecla Mining Company, submitted a request for a 60-day extension to the public comment period on June 15, 2005. The USEPA respectfully denied this request via e-mail on June 17 and via letter on June 22, as an extension would cause the USEPA to not meet its statutory deadline to complete this five-year review by September 27, 2005. On June 28, 2005, the USEPA received a faxed letter from the Idaho Congressional delegation on behalf of the public they represent, requesting a 60-day extension to the public comment period. After approval from the USEPA Headquarters, a 30-day extension to the public comment period was granted. The Idaho Congressional delegation was notified of the extension on July 1, 2005, and telephone calls, e-mails, and newspaper ads to the public were placed shortly thereafter. Because of this public comment period extension, completion of the final report was delayed until October 24, 2005.

Terry Harwood, Basin Commission Executive Director

Letter - S2. Signatory - Terry Harwood

Basin Commission Executive Director Comments on EPA 5-year Review Report:

S2-1 1. Where are we with the evaluation of the Phase I source control and removal activities to meet water quality improvement objectives of 1992 OU2-ROD? Required before we determine Phase II implementation strategies.

S2-2 2. SSC for OU2-ROD. What is being done about this?

S2-3 3. Where are we with the remedy at Page Pond? Nothing done since 2000?

S2-4 4. ICP for OU3, get on with it!

S2-5 5. OU2-EDS, restoration of Government Gulch to a natural drainage is noted. Repository discussion at last Box repository meeting had proposals considering filling up Government Gulch. Doesn't seem consistent.

S2-6 6. What is going to be done with all the studies and pilot projects in Canyon Cr. and when will remediation begin?

S2-7 7. Page 4-73, was mine water being pumped from the workings in 1992. Better check to see if this info is correct. Some say it is not.

S2-8 8. Page 4-74, does the West Fork of Milo Cr. really add to the flows from the Bunker Hill Mine, and if so, why hasn't this work been done to reduce flow to the treatment plant?

S2-9 9. Typo on page ES-9. Operable Unit 3 should be bolded and a new header.

S2-10 10. Does the CTP discharge adversely affect Bunker Cr. or not? Page 4-75 says CTP meets its discharge requirements with minor deviations, but page 4-80 indicates that upsets at the CTP required fencing of the creek to prevent human contact with contamination.

S2-11 11. Page 4-81, sub-section 4.3.10 indicates that the Mullan Branch was taken out of service in 1990. Locals have told me that trains were still using the track as late as 1993.

Terry Harwood

Response to Comment S2-1

As stated in the five-year review report (see Sections 4.1 and 4.5), Phase I source control and removal actions are substantially complete. Evaluation of these actions on meeting water quality improvement objectives is currently underway.

Response to Comment S2-2

The USEPA and the State of Idaho are continuing to discuss viable solutions in regard to the State Superfund Contract (SSC) amendment that is required to fully implement the 2001 Operable Unit 2 (OU2) Record of Decision (ROD) Amendment. Until this SSC amendment is signed, or another solution ensuring long-term operation of the Central Treatment Plant (CTP) is found, control and treatment of acid mine drainage and its impact on water quality will continue to be an issue.

Response to Comment S2-3

See Section 4.3.5 of the five-year review report for a discussion on Page Pond.

Response to Comment S2-4

Comment noted. See Section 5.3.1 of the five-year review report for a discussion on the Institutional Controls Program (ICP) for Operable Unit 3 (Basin).

Response to Comment S2-5

Comment noted.

Response to Comment S2-6

Phase II of the treatability study (pilot testing) in Canyon Creek is scheduled to be completed during the winter of 2006. This will be followed by initiation of a remedial design for a water treatment system. The remedial design may be based on a phased approach and may include a combination of several treatment options based upon the findings of the pilot studies.

Response to Comment S2-7

The power to the pumps was turned off in 1991 and not restarted until December 1994. This correction has been made in the final five-year review report (see Section 4.3.8.2).

Response to Comment S2-8

The West Fork Milo Creek is particularly important with respect to recharge to the mine. Essentially all of the water from this seasonally flowing stream infiltrates directly into the mine above or through the Guy Cave area. A large portion of this water moves through the pyrite-rich Flood-Stanly ore body, which results in the production of the majority of acid water in the Bunker Hill Mine. As part of the 2001 OU2 ROD Amendment for Minewater, the USEPA has begun the remedial design for the West Fork Diversion. This design is expected to be complete by the summer of 2006. Construction of this remedy will require State signature on an SSC amendment.

Response to Comment S2-9

This correction has been made in the final five-year review report.

Response to Comment S2-10

There are only occasional Central Treatment Plant (CTP) upsets that contribute to the recontamination of the Bunker Creek channel. Since the reconstruction of the Bunker Creek channel, recontamination has occurred in certain segments of the channel due to a number of contributory factors. The primary factor is direct discharge from the Bunker Hill Mine, as well as the plugging of its conveyance piping. Upon contact with creek water, some portion of the dissolved metals in the mine water precipitates from solution and deposits sludge on the creek bottom. Other factors include contaminant transport from tributary creeks and adjacent surface areas. In response to recontamination, fencing was put in place between the creek and the Trail of the Coeur d'Alenes in 2002 to prevent direct human contact with contaminated sediments in the Bunker Creek channel. In addition, the time-critical mine water upgrades the USEPA has implemented have included construction of direct feed lines from the Bunker Hill Mine to the CTP and clean-out structures to ensure that piping and valves are working properly and conveying flows at intended capacities (see Section 4.3.8 of the final five-year review report). Part of the ongoing maintenance of the CTP includes regularly scheduled pipe cleanout events that help remove flow constrictions from the plant direct and lined pond feed lines.

Response to Comment S2-11

The Union Pacific Railroad (UPRR) commenced proceedings to abandon the Wallace and Mullan branches in 1991. The Interstate Commerce Commission, by its initial decision in October 1992 and its subsequent decision in 1994, authorized cessation of rail service. Section 4.3.10 of the final five-year review report has been updated accordingly.

HellerEhrman (Hecla)

Letter - H1. Signatory - HellerEhrman (Hecla)

HellerEhrman
ATTORNEYS

June 30, 2005

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Re: Comments of Hecla Mining Company on EPA Second Five-Year Review For Bunker Hill Mining and Metallurgical Complex Superfund Site Operable Units 1, 2 and 3

Dear Ms. Langton:

These comments are being submitted at the request and on behalf of Hecla Mining Company. We request that this letter and its attachments be placed in the administrative record for the Bunker Hill Site including any separate administrative records being kept for OUs 1, 2 and 3.

EPA's draft Second Five-Year Review was released on June 1, 2005 with comments due 30 days thereafter. The document contains some 500 pages of complex text, figures and tables. On June 9, 2005 Hecla requested a 60-day extension of the comment period to allow the company to have the time necessary to thoroughly review the draft and prepare meaningful comments. By letter dated June 22, 2005 (which was a follow up to a June 17 email from you), EPA denied the request for additional time. Hecla still believes that a matter as complex as this deserves a thorough review and that 30 days simply is not enough time. Thus, while Hecla is submitting these comments, it does so under protest and objects to the Second Five-Year Review as not providing properly for public comment.

H1-1 As EPA is aware, a select panel of independent scientists from the National Academy of Science is currently evaluating the Bunker Hill Site to "examine EPA's scientific and technical practices in Superfund site area characterization, human and ecological risk assessment, remedial planning and decision making." Hecla urges EPA to defer finalization of the five-year review until the NAS study is complete and the public

Response to Comment H1-1

The USEPA disagrees that there is no deadline that requires the USEPA to complete the five-year review before the NAS study is finalized. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(c) requires the USEPA to perform a review of remedial actions that result in hazardous substances, pollutants, or contaminants remaining at the site at least every five years. The purpose of the review is to assure that the remedial actions are protective of human health and the environment. The first USEPA five-year review for the Bunker Hill Mining and Metallurgical Complex Superfund Site ("Bunker Hill Site") was completed on September 27, 2000. Thus, CERCLA requires that the USEPA complete another by September 27, 2005. The NAS study is expected to be finalized by December 31, 2005. Because the USEPA has provided the public with an opportunity to comment on a draft of the five-year review report and because the USEPA extended the public comment period, the USEPA will not complete this five-year review by September 27, 2005. The USEPA does not believe it is appropriate to further delay completion of the five-year review until after NAS finalizes its study. However, the USEPA will evaluate the final NAS study and consider its recommendations as it continues to design, implement, and/or evaluate remedial actions within the Bunker Hill Site.

H1-1 has a chance to review and comment on the five-year report. There is no deadline for the five-year review requiring that the review be completed before the results of the NAS study are available.

Attached to this letter are documents (both paper and on a CD) that Hecla is submitting to EPA for inclusion into the administrative record for OUs 1, 2 and 3. All of these documents are pertinent to the draft Second Five-Year Review and EPA's underlying decisionmaking. Attachment 1 is a report entitled "Comments from Hecla Mining Company on the Public Review Draft Second Five-Year Review For Bunker Hill Mining and Metallurgical Complex Superfund Site Operable Units 1, 2 and 3 Idaho and Washington" which was prepared by Newfields. That document contains comments on the draft five-year report, as well as references to many of the other documents which are being submitted and which are contained on the enclosed CDs. Certain documents on the CDs are not mentioned in the Newfields' report, but also contain material and comments pertinent to the five-year review. Attachment 2 is entitled "Hecla Mining Company's Response To Specific Statements Contained in EPA's Draft Second Five-Year Review Report." Attachment 3 is an index of documents on the attached CD. Attachment 4 is the document CD.

H1-2 We are also attaching as Attachment 5, a CD containing several documents which are examples of recent information that EPA should have considered as part of its Second Five-Year Review. The two waterfowl documents show waterfowl numbers in the Coeur d'Alene area are meeting or exceeding management goals. The 1998 fisheries performance report shows strong bass/pike populations in three lateral lakes. The 2000 job performance report shows a good fishery in the Coeur d'Alene River below the confluence. All three fishery reports demonstrate a good (and strongly improving after the 1996-97 floods) kokanee/Chinook fishery in Lake Coeur d'Alene. The wetland document describes a couple of the lateral lakes as needing to be left alone as much as possible due to their current value as wetlands.

By way of summary, Hecla continues to take issue with major components of EPA's selected remedy for the Coeur d'Alene Basin:

H1-3 First, with respect to the human health components of both OU-1 and OU-3, there is no credible evidence that soil lead is a substantial contributor to elevated blood lead levels in children or that soil removal is or will be responsible in any material way for any declines in those levels. The evidence shows that declines in blood lead levels in the Basin mirror similar declines nationally and are a result of the same forces at work, namely parent awareness and education, the removal of lead from gasoline, paint and other sources and improving socioeconomics. In addition, blood lead levels significantly declined in the Basin as a result of the closure of the Bunker Hill smelter. The solution to remaining elevated blood leads in the Basin is use of a community health protection system similar to the ones in use at Leadville, Colorado, Butte, Montana and East Helena, Montana.

Response to Comment H1-2

While there are some indications of slow recovery of fish populations in some portions of the Coeur d'Alene Basin, other areas are still severely affected and recovery is not expected to occur for many years. Fish population abundance and composition are known to fluctuate due to the influence of natural and human-related factors. Nevertheless, fish population data for the South Fork of the Coeur d'Alene River and its tributaries show a clear abundance gradient between contaminated and uncontaminated areas. Exposure of aquatic organisms to metals was confirmed by the presence of elevated metals concentrations in the tissue of fish and invertebrates in many portions of the Basin.

Waterfowl mortality in the Lower Basin due to ingestion of contaminated soil/sediment remains a concern, despite fluctuations in regional population size. The USEPA is responsible under CERCLA for protecting the environment, and waterfowl mortality represents unacceptable "take" under the terms of the Migratory Bird Treaty Act (MBTA). The MBTA is an applicable or relevant and appropriate requirement (ARAR) for the Basin cleanup and requires the USEPA to consider both individuals and populations of waterfowl and other migratory birds.

Long-term monitoring of aquatic and waterfowl populations will be required to identify trends in fish and invertebrate abundance in response to remediation, and is included in the Basin Environmental Monitoring Plan (BEMP) in association with the 2002 Operable Unit 3 (OU3) interim Record of Decision (ROD).

Response to Comment H1-3

Similar comments were submitted during the first five-year review for Operable Unit 1, which was issued in 2000. An extensive response was prepared, including completion of an addendum and extended response to technical comments for the first five-year review report in April 2001 (TerraGraphics, 2001). The following is an excerpt from that addendum that is still relevant to this response:

> The PRP analysis also concludes that soil contamination in the BHSS or "Box" is dominated by the smelter and that smelter influence outside the Box is limited or absent. Most of the PRPs' comments in this regard suggest that the lead derived from either paint or the smelter has been pyro-metallurgically treated and is released to the environment in a lead oxide chemical form. This is opposed to soil contaminants arising from mining industry discharges that are alleged to be in the native galena ore, or lead sulfide, form. Because lead sulfide has low solubility, the PRPs suppose that this lead is not bioavailable, nor can it be dissolved in the digestive tract and absorbed by children. The argument continues that lead in soils and dusts in the Box are overwhelmingly due to either paint or smelter-derived contaminants. As a result, the PRPs conclude that any effect of soils and dusts on blood lead levels is due to paint and smelter releases, with lead derived from mining industry waste being inert and passing harmlessly through children in their feces. As a result, the PRPs conclude that the Five Year Review failed to consider this scenario and "missed the mark" with respect to analyzing dose-response analysis at the BHSS.
>
> Included in this analysis are several misconceptions and inaccuracies with regard to the historic aspects of smelter operations, the extent and impact of smelter emissions, and blood lead levels during and following the smelter's active years. These misunderstandings affect many of the suppositions and follow-up conclusions in the PRP analysis. Among those factors are:
>
> i) The significance of air lead contamination and its influence on soil and dust lead levels has changed markedly in the last several decades,
>
> ii) Soils and dusts both within and outside the Box are a complex mixture of lead from several sources that vary on a location-specific basis depending on the particular site's history,
>
> iii) Both anthropogenic actions and natural weathering and contaminant redistribution mechanisms active in the valley tend to reduce the heterogeneity and enhance the solubility of soil contaminants available to children,
>
> iv) Historic dose-response analysis since the 1970s has noted independent effects of soil and dust lead on blood lead levels after accounting for air concentrations,
>
> v) Available blood lead observations prior to 1988 do not support an exponential decay theory,
>
> vi) The blood to soil lead concentration slope has remained consistent, both before and after smelter closure, perhaps slightly increasing in recent years,
>
> vii) Significant reductions in blood lead levels have largely been achieved in discreet increments associated with introduction of various risk reduction efforts in the last 25 years,
>
> viii) the several approaches to analysis of the blood lead to environmental exposure relationship conducted in the 1999 Five Year Review Report provide similar results, that are reflected in blood lead levels paralleling estimated intake rates based on home specific measurements of soil and dust lead content,
>
> ix) Blood lead levels observed through the course of remediation are consistent with model predictions developed in 1990 that indicate the RAO will be achieved as was anticipated in developing the remedy,

x) housing stock has continued to age, no lead paint related rehabilitation has occurred, childhood poverty has increased, socio-economic indicators are the lowest in the State, and relocation to rental homes has remained frequent among young families; yet blood lead levels have decreased significantly, and

xi) Lead Health Intervention Program (LHIP) follow-up investigations of children with high blood lead levels frequently identify contaminated soils as the primary source. Lead based paint is indicated as a risk factor in a relatively small number of cases.

Incidental ingestion of soil and house dust has long been recognized as a primary contributor to children's lead absorption in many studies, including those at the Bunker Hill site (Landrigan, Gehlbach et al., 1975; Yankel, von Lindern & Walter, 1977; Succop, Bornschein et al., 1998; TerraGraphics, 2004). The Bunker Hill Site has adopted a strategy of reducing house dust lead exposure in the long term through elimination of soil-borne sources throughout the community. More recent analyses continue to provide support for the efficacy of the yard soil clean-up to reduce blood lead levels (Ian von Lindern, Spalinger et al., 2003a; Ian H. von Lindern, Spalinger et al., 2003b; TerraGraphics, 2004).

Observed blood lead declines were evaluated by the National Academies' National Research Council pre-publication report entitled *Superfund and Mining Megasites - Lessons from the Coeur d'Alene River Basin* (National Research Council, 2005). The report focuses on Operable Unit 3 and states on page 139-140:

> Between 2000 and 2001, an apparent sharp decline in geometric mean blood lead is observed. This apparent decline may be an artifact of nonrepresentative sampling. If it is real, it appears to be much more rapid than the background rate of decline occurring in the national population. One possibility is that the decline is real and attributable to remedial activities in the Coeur d'Alene River Basin. Between 1997 (the inception of remedial activities) and 2000, 66 residences, 6 schools or daycare centers, and 5 common-use or recreational properties were remediated (TerraGraphics, URS Greiner Inc. & CH2M HILL, 2001), Table 2.3-1). Remediation of that number of properties could have contributed substantially to declining blood lead, since cleanups were intended to first address sites posing the greatest apparent threats, and blood sampling was not random. In any case, this apparent improvement in the Coeur d'Alene River Basin results was observed only after substantial remedial activity.

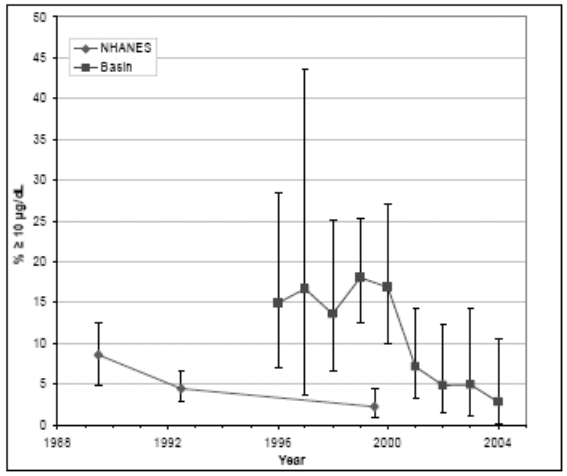


FIGURE 5-3 Comparison of fraction of blood samples among 1-5 year olds from the Basin with blood lead levels ≥10 µg/dL with corresponding NHANES survey data. Error bars represent 95% confidence intervals. Basin sample sizes in years 1996 through 2004 were 47, 12, 59, 139, 77, 98, 83, 61, and 71, respectively. It should be noted that the sampling in 1996 (ATSDR 2000) sampled individuals from a smaller area (and population) than the fixed site sampling in subsequent years. Source: Basin data, Idaho Department of Health and Welfare, unpublished materials 2004; NHANES data, CDC 2004.

[8] Another issue limiting this comparison is that the basin data and national data are not demographically matched.

In addition, the National Research Council's review of OU3 supported the necessity of primary and secondary prevention strategies for lead exposure reduction. Page 136 of the pre-publication report states:

> However, it should be noted that interventions short of actual remediation of lead sources have not been found to reduce the prevalence of childhood lead poisoning in previous studies. Therefore, these counseling efforts should be adjuncts to remediation efforts in which the lead hazard is removed from the child's environment. Secondary prevention, which relies on identifying lead-poisoned children is important but should not be the primary focus of public health intervention. Given the lack of effective treatments for lead toxicity, primary prevention strategies are more likely to have a positive public health impact.

References

Landrigan, P.J., Gehlbach, S.H., Rosenblum, B.F., Shoults, J.M., Candelaria, R.M., Barthel, W.F., Liddle, J.A., Smrek, A.L., Staehling, N.W. & Sanders, J.F. (1975). Epidemic lead absorption near an ore smelter. The role of particulate lead. *N Engl J Med*, **292,** 123-9. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=1196336&dopt=Abstract

National Research Council. (2005). Prepublication Version: Superfund and Mining Megasites: Lessons from the Coeur d'Alene River Basin pp. xvii, 382. Prepared for Committee on Superfund Site Assessment and Remediation in the Coeur d'Alene River Basin, Washington, DC. July, 2005. http://www.nap.edu/books/0309097142/html/

Succop, P., Bornschein, R., Brown, K. & Tseng, C.Y. 1998. An empirical comparison of lead exposure pathway models. *Environ Health Perspect*, **106 Suppl 6,** 1577-83. http://www.ncbi.nlm.nih.gov/cgi-bin/Entrez/referer?http://ehpnet1.niehs.nih.gov/members/1998/Suppl-6/577-1583succop/succop-full.html

TerraGraphics. 2001. Technical Memorandum: 1999 Five Year Review Report Bunker Hill Superfund Site Populated Areas: Addendum and Extended Response to Technical Comments pp. 25, plus figures. Prepared for U.S. EPA Region 10 and Idaho Department of Health and Welfare Division of Environmental Quality: Moscow, ID. April 26, 2001.

TerraGraphics. 2004. Final Bunker Hill Box Human Health Remedial Evaluation Report pp. 227. Prepared for U.S. EPA Region 10 and Idaho Department of Health and Welfare Division of Environmental Quality: Moscow, ID. 2004.

TerraGraphics, URS Greiner Inc. & CH2MHill. 2001. Final Human Health Risk Assessment for the Coeur d'Alene Basin. Prepared for U.S. EPA Region 10 and Idaho Department of Health and Welfare Division of Environmental Quality: Moscow, ID. June, 2001. http://www.epa.gov/r10earth/offices/sf/BH_HHRA_Final/TableOfContents.pdf

Von Lindern, I., Spalinger, S., Petroysan, V. & von Braun, M. 2003a. Assessing remedial effectiveness through the blood lead:soil/dust lead relationship at the Bunker Hill Superfund Site in the Silver Valley of Idaho. *The Science of the Total Environment*, **303,** 139-170. http://www.sciencedirect.com/science/article/B6V78-47CY658-2/1/3016ef32683d0fe1e6f7d38e8369b866

Von Lindern, I.H., Spalinger, S.M., Bero, B.N., Petrosyan, V. & von Braun, M.C. 2003b. The influence of soil remediation on lead in house dust. *The Science of The Total Environment*, **303,** 59-78. http://www.sciencedirect.com/science/article/B6V78-472BJJ7-3/1/9fffae56def6e2b86af51ab99cd7c7c8

Yankel, A.J., von Lindern, I.H. & Walter, S.D. 1977. The Silver Valley lead study: the relationship between childhood blood lead levels and environmental exposure. *J Air Pollut Control Assoc*, **27,** 763-7. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=886085

H1-4

Second, although the ROD for OU-2 has been in place since 1992, the zinc load from groundwater inflow to the South Fork of the Coeur d'Alene River has yet to be abated by EPA and the State of Idaho. EPA should immediately address this critical component to the OU-2 remedy by capturing this water and directing it to the Central Treatment Plant. This relatively simple and inexpensive operation will significantly reduce zinc loading in the Coeur d'Alene River. The timing of these activities should be coordinated with any effort to reduce zinc loadings to surface water upstream of the "Box."

H1-5

Third, the draft Second Five-Year Review's inclusion and treatment of the remedy for OU-3 has no real utility because the remedy itself is so vague and lacking in specifics that a "review" is not possible. Plus, EPA has taken so few steps towards further definition or implementation of the remedy in the three years since the ROD was issued. Throughout the ROD for OU-3, EPA has deferred decision-making to "remedial design" instead of following the requirements of CERCLA, the NCP and its own guidance documents which call for the "selected remedy" as set forth in the ROD to be specific enough so that an analysis can be done to see if it meets the requirements of CERCLA §121 and the NCP. The required specifics should have been set forth in the ROD.

We request that EPA finally give serious consideration to the issues raised by the comments, and issues and concerns identified in the NAS report. It is not too late to change the course of the cleanup in the Coeur d'Alene Basin by revising the three existing RODs to reflect a cleanup strategy that is realistic, effective, coordinated and more acceptable to all interested stakeholders.

Very truly yours

Michael R Thorp

Michael R. Thorp
Attorney for Hecla Mining Company

Attachments

Response to Comment H1-4

The USEPA and the Idaho Department of Environmental Quality (IDEQ) are currently engaged in a review of Operable Unit 2 (OU2) Phase I remedial action effectiveness and evaluation of current status of the OU2 environmental system.

Phase I of remedy implementation includes extensive source removal and stabilization efforts, all demolition activities, all community development initiatives, development and initiation of an Institutional Controls Program (ICP), future land use development support, and public health response actions. Also included in Phase I are additional investigations to provide the necessary information to resolve long-term water quality issues, including technology assessments and pilot studies, evaluation of the success of source control efforts, development of site-specific water quality and effluent-limiting performance standards, and development of a defined operation and maintenance (O&M) plan and implementation schedule. Interim control and treatment of contaminated water and acid mine drainage (AMD) is also included in Phase I of remedy implementation. Phase I remediation began in 1995, and source control and removal activities are near completion.

Phase II of the OU2 remedy will be implemented following completion of source control and removal activities and evaluation of the impacts of these activities on meeting water quality improvement objectives. Phase II will consider any shortcomings encountered in implementing Phase I and will specifically address long-term water quality and environmental management issues. In

addition, the ICP and future development programs will be re-evaluated as part of Phase II.

The effectiveness evaluation of the Phase I source control and removal activities to meet the water quality improvement objectives of the 1992 OU2 ROD will be used to determine appropriate Phase II implementation strategies and actions. In addition, although the 1992 OU2 ROD goals did not include protection of ecological receptors, additional actions may be considered within the context of site-wide ecological cleanup goals. Both ROD and State Superfund Contract (SSC) amendments are required prior to implementation of Phase II remedial actions.

Response to Comment H1-5

The interim ROD for OU3 is consistent with CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and relevant guidance documents. The basic purpose of a ROD is to document the reasons why a specific remedial approach has been chosen. Consistent with CERCLA and the NCP, the OU3 ROD describes the site history and the risks posed to human health and the environment, and evaluates remedial alternatives. The ROD also describes the selected remedy and the basis for selecting the remedy, and documents the ARARs.

The NCP at 40 CFR 300.430(a)(2) states that the Remedial Investigation/Feasibility Study (RI/FS) should "…evaluate alternatives to the extent necessary to select a remedy." This means that alternatives need to be evaluated to the level of detail necessary to understand the differences between remedial strategies. The OU3 ROD includes such a level of detail.

The OU3 ROD includes an adequate level of detail for review. The OU3 ROD outlines locations where actions will be taken, describes the general types of action to be taken, and provides estimates of the amount of material that may need to be addressed. The OU3 ROD also identifies the need to collect additional information through the collection of data and performance of treatability and pilot studies during the remedial design phase of the cleanup. This approach is consistent with CERCLA and the NCP. The NCP recognizes that the ROD does not provide a remedy which is ready to be built, hence the inclusion of the remedial design phase at 40 CFR 300.435(b). The remedial design phase includes not only the engineering design, but also additional sampling to further characterize the site, and performance of treatability studies or field tests. The information developed during the remedial design phase will help to refine elements selected in the ROD, identify specific treatment methods that will achieve the performance goals identified in a ROD, and optimize performance of the remedy.

The USEPA is indeed implementing the 2002 OU3 ROD. The USEPA's first priority for implementation of the OU3 ROD is to remediate residential and recreational areas that pose direct human health risks. The USEPA and the IDEQ have already remediated several hundred residential properties and several recreational areas; we are moving forward aggressively to complete the human health remedy.

Comments from Hecla Mining Company on the
Public Review Draft Second Five-Year Review For
Bunker Hill Mining and Metallurgical Complex Superfund Site
Operable Units 1, 2, and 3
Idaho and Washington

The following comments are submitted by Hecla Mining Company. Hecla identified the following general concerns with the subject document (hereinafter referenced as the "5Y Review").

1. As was the case with EPA's Feasibility Study, Proposed Plan, and Record of Decision ("ROD") for Operable Unit 3 ("OU3"), the 5Y Review lacks objective and meaningful support for its statements regarding the effectiveness of the remedy for Operable Unit 1 ("OU1") and Operable Unit 2 ("OU2").

2. Numerous impermissible uncertainties regarding the OU3 ecological remedy existed at the time the ROD was signed and these persist within the 5Y Review.

3. The 5Y Review employs a double standard when assessing the effectiveness of actions implemented by EPA relative to assessing the effectiveness of actions implemented by the Upstream Mining Group ("UMG").

4. EPA's inability to resolve the "State Superfund Contract ("SSC") impasse" with the State of Idaho within the Box, as discussed in the 5Y Review, results in significant ongoing harm to the environment in the Upper Basin and has significant negative repercussions relative to the remedy purportedly "selected" for Canyon Creek.

Detailed discussion of these concerns is presented below, along with supporting statements and information from the 5Y Review.

H1-6(B)
H1-6

As was the case with EPA's Feasibility Study, Proposed Plan, and ROD for OU3, the 5Y Review lacks objective and meaningful support for its statements regarding the effectiveness of the remedy for OU1 and OU2.

The Mining Companies have provided extensive comments historically regarding the lack of objective and meaningful evaluation in EPA's remedy development and selection process for the Coeur d'Alene Basin. Those comments are part of the Basin Administrative Record. In addition, Hecla Mining Company retained experts in connection with the upcoming damages phase of the government's Basin cost recovery and Natural Resource Damages litigation to conduct further evaluations related to EPA's remedy development and selection process. Hecla requests that EPA include the expert reports prepared by the following individuals in the Basin Administrative Record (all were completed in August through October 2004 and are included on the enclosed compact disk):

Response to Comment H1-6

See individual responses for H1-6(B, C, D, E) below.

Response to Comment H1-6(B)

In regard to the referenced expert reports, the USEPA will place the documents in the Bunker Hill Site File which is the administrative record file for the Bunker Hill Site. Because the documents were submitted to the USEPA after it selected response actions for Operable Units 1, 2, and 3 of the Bunker Hill Site, the documents did not form the basis for the USEPA's selection of such response actions. As a result, the documents will not be placed in an administrative record that supports a previously selected response action for Operable Units 1, 2, or 3 of the Bunker Hill Site. However, the USEPA will consider the documents for inclusion in an administrative record for any additional response action(s) that it may select for the Bunker Hill Site.

James M. Beck, P.E.
Richard B. Belzer, Ph.D.
Bradford S. Cushing
Daniel Dupon
Dale W. Evans, P.E.
Brian G. Hansen, P.E., P.G.
Kenneth D. Jenkins, Ph.D.
D. Michael Johns, Ph.D.
Gary R. Krieger, MD, DABT
Dennis McLaughlin, Ph.D.
Robert A. Mussetter, Ph.D., P.E.
John T. Ratti, Ph.D.
Edward F. Redente, Ph.D.
Shahrokh Rouhani, Ph.D., P.E.
Dirk van Zyl, Ph.D., P.E.
Thomas A. Wesche, Ph.D.
Steven A. Werner

Overall, the opinions of these technical experts indicate that EPA did not follow statutory mandates or its own guidance (e.g., the National Contingency Plan) when developing and evaluating remedial alternatives for the Basin and that the remedial alternatives were neither completely nor objectively evaluated.

These criticisms are equally applicable to the 5Y Review. According to its own guidance, EPA must answer the following questions when conducting a 5-year review of a given remedy (5Y Review, p. 1-3):

> **Question A**: Is the remedy functioning as intended by the decision documents (e.g., RODS or Explanation of Significant Differences [ESD] documents)?
>
> **Question B**: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?
>
> **Question C**: Has any other information come to light that could call into question the protectiveness of the remedy?

H1-6(B)

With regard to OU1, the 5Y Review perpetuates EPA's position that remediation of residential yard soil has directly resulted in a significant decline in blood lead levels. The documented decline in blood lead levels is quite positive; however, EPA has not differentiated the clearly beneficial effects of the 1981 smelter closure, the increased education and awareness of the OU1 population to the risks associated with lead, and the ongoing intervention program from any beneficial effects that may result from yard remediation. It remains Hecla's position that significant decreases in blood lead levels would have occurred as a result of smelter closure and public education without any yard remediation. Therefore, EPA still has not answered Question A for OU1 because there is no evidence that the decrease in blood lead levels to near the RAO results from the "dig and haul" remedy selected by EPA (see the 5Y Review, Section 3.2.2.3).

H1-6(C)

H1-6(D)

The 5Y Review is vague in its description of current remedy performance for OU2. EPA's answer to Question A for various aspects of the OU2 remedy is that the remedial actions are functioning as intended in the decision documents. The text accompanying these statements contains little or no support for these statements or only contains

Response to Comment H1-6(C)

With regard to the comment on OU1, Section 3.2.1.3 (Blood Lead Levels) of the final five-year review report identifies a number of risk management actions taken at the Bunker Hill Site that have contributed to observed declines in lead intakes from soil and house dust sources, which have resulted in reduced blood lead levels in children. These risk management actions are part of the selected remedy and include cleanup of residential properties, consolidation and capping of contaminated areas and fugitive dust sources throughout the Box, and the Institutional Controls Program. Also see response to H1-3.

Response to Comment H1-6(D)

The USEPA disagrees with the commenter. This is the second technical review of Phase I remedial actions and other activities that have been conducted in OU2. As was concluded in the first review, they are performing as expected per OU2 decision documents (e.g., ROD performance goals, standards, and requirements). As stated in the second five-year review report, the remedy being implemented in OU2 is expected to be protective of human health and the environment upon completion, and in the interim, human health exposure pathways that could result in unacceptable risks are being controlled. See response to comment H1-4 and Section 4.5 of the final five-year review report (Performance Evaluation of OU2 Remedy) for further description of Phase I and Phase II actions.

The review of each of the OU2 Phase I remedial actions and other OU2 activities and documentation of these in the five-year review report was done in accordance with

USEPA guidance (USEPA, 2001). This review consisted of a number of steps, both qualitative and quantitative. The first step included gathering site-related information from the following sources:

- Review of the first five-year review reports for OUs 1 and 2 (USEPA, 2000a and 2000b);
- Review of remedies selected in the Site RODs, as amended or modified (see Section 1.3.1 of the final five-year review report);
- Review and assessment of relevant monitoring data and remedy completion reports, including Potentially Responsible Party (PRP) reports;
- Review of operations and maintenance (O&M) records;
- Onsite inspections;
- Interviews with various individuals familiar with specific remedial activities; and,
- Notification and solicitation of comments from the public and other interested parties.

The second step was to use the information gathered from the first step, and conduct a technical assessment of OU2 Phase I remedy performance and conformance with ROD requirements, performance standards, and cleanup goals. These requirements, standards, and goals are listed for each of the OU2 remedial actions and activities in the five-year review report.

As the commenter notes, the technical assessment included evaluating the following three key questions for each remedial action or activity that is under construction, operating, completed, or in the case of many OU3 remedial actions or activities, to be completed in the future:

> **Question A**: Is the remedy functioning as intended by the decision documents (e.g., RODs and Explanation of Significant Differences [ESD] documents)?
>
> **Question B**: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?
>
> **Question C:** Has any other information come to light that could call into question the protectiveness of the remedy?

The third step was to identify and document any issues and/or recommended follow-up actions required for each remedial action or activity. This included determining whether the issue or follow-up action would affect the protectiveness of the remedy within the next year (current) or in the future (more than one year). In certain cases, a determination was made that an issue or follow-up action was not currently affecting the remedy, but if not dealt with in the future, it could affect long-term remedy protectiveness. For example, the OU2 hillsides remedy is currently performing as expected per decision documents, but if adverse impacts from off-road vehicle-use are not controlled, protectiveness of the hillsides remedy in the future could be compromised. Another example is the OU2 biomonitoring program. Since the 1992 OU2 ROD goals did not include protectiveness of ecological receptors, the OU2 biological monitoring issues and

follow-up actions indicate that monitoring results do not affect current remedy protectiveness. However, because additional OU2 remedial actions may be considered within the context of site-wide ecological goals, the biological monitoring results may affect the protectiveness of the remedy in the future.

The next step was to determine the remedy protectiveness of each operable unit at the Site. In general, if the answers to the above Questions A, B, and C were *yes, yes,* and *no*, respectively, then the remedy was considered protective. However, if the answers to the three questions were other than *yes, yes,* and *no*, depending on the elements that affect each question, the remedy may be one of the following:

- Protective;
- Will be protective once the remedy is completed;
- Protective in the short-term (current to 1 year); however, in order for the remedy to be protective in the long-term (greater than 1 year), follow-up actions need to be taken;
- Not protective, unless the following action(s) are taken in order to ensure protectiveness; or,
- Protectiveness cannot be determined until further information is obtained.

Even if there is a need to conduct further actions, as may be the case in OU2 after evaluation of Phase I remedial actions are concluded, it does not mean that the remedy is not currently protective nor meeting the requirements of decision documents. Normally, the remedy is considered as not protective if:

- An immediate threat is present (e.g., exposure pathways that could result in unacceptable risks are not being controlled);
- Migration of contaminants is uncontrolled and poses an unacceptable risk to human health or the environment;
- Potential or actual exposure is clearly present or there is evidence of exposure (e.g., institutional controls are not in place or not enforced and exposure is occurring); or
- The remedy cannot meet a new cleanup level and the previous cleanup level is outside of the risk range.

As stated above, OU2 Phase I remedial actions and other activities conducted to date are performing as expected per OU2 decision documents, the remedy being implemented in OU2 is expected to be protective of human health and the environment upon completion, and in the interim, human health exposure pathways that could result in unacceptable risks are being controlled. Specific performance goals were compared with actual performance conditions and supported by both qualitative and quantitative analysis.

References

USEPA. 2001b. *Comprehensive Five-Year Review Guidance*. USEPA 540-R-01-007. June 2001.

USEPA. 2000a. *First 5-Year Review of the Non-Populated Area Operable Unit, Bunker Hill Mining and Metallurgical Complex, Shoshone County, Idaho*. USEPA Report. September 28, 2000.

USEPA. 2000b. *Bunker Hill Populated Areas Operable Unit First Five Year Review Report*. Seattle, WA. USEPA Region 10. September 27, 2000.

qualitative support. Specific performance goals should be compared with actual measured conditions in the 5Y Review to assess whether the performance goals have been achieved. If the performance goal has been met, the statement that remedial actions are functioning as intended in the decision documents is supported with quantitative evidence. If the performance goal has not been met, the aspect of the remedy not achieving the performance goal should be described as not functioning as intended by decision documents. EPA should clearly identify any failure to attain the performance goals as instances where the remedy is NOT functioning as intended by the decision documents.

H1-6(D)

An example is the collection and treatment of groundwater north of the CIA, as required by the OU2 ROD, and treatment of that water in the Central Treatment Plant, as required by the 1998 ESD. As discussed later in these comments, EPA relies on a disagreement with the State of Idaho to defer implementation of these required actions. Regardless of its rationale, EPA should state that these required aspects of the remedy are not functioning and that resulting significant impacts to the South Fork continue.

H1-6(E)

H1-6

Numerous impermissible uncertainties regarding the OU3 ecological remedy existed at the time the ROD was signed and these persist within the 5Y Review.

H1-7

EPA's remedial approach for ecological impacts in OU3 is ill-defined and represents a moving target with a huge price tag. The following interchange between the U.S. Geological Survey ("USGS") and EPA underscores the vagueness of the Selected Remedy. Dr. Arthur Bookstrom and others of the USGS, who have conducted numerous studies within the Basin, prepared a report in 2004 entitled "*USGS Open File Report 2004-1211: Baseline, Historic, and Background Rates of Deposition on Lead-Rich Sediments on the Floodplains of the Coeur d'Alene River, Idaho.*" That report included a section in which the USGS provided its own summary of EPA's remediation plans for the Lower Basin river and floodplains, as described in the 2002 ROD.

Apparently, Dr. Bookstrom and his colleagues were unable to understand EPA's intentions with regard to its Selected Remedy in the Lower Basin. In a letter to Dr. Bookstrom and Dr. Thomas Frost of the USGS dated July 8, 2004, Ms. Anne Dailey of EPA provides EPA's comments on the report. Those comments focus only on the section of the report that deals with the Lower Basin Selected Remedy. The following excerpts are taken from Ms. Dailey's letter:

> *"Because readers of the report might be misled into thinking that there is a conflict between the findings and opinions of the USGS report and EPA's selected remedy, EPA requests that the report clarify that USGS' findings and opinions are not inconsistent with the future implementation of EPA's selected remedy."*
>
> *"As explained below, EPA is further concerned that aspects of the report that appear critical of EPA's selected interim remedy may lead readers to misunderstand the nature of EPA's remedy selection. EPA therefore requests that*

3

Response to Comment H1-6(E)

The collection of groundwater north of the Central Impoundment Area (CIA) and, if required, treatment in the Central Treatment Plant (CTP) have been deferred until Phase I OU2 remedial action effectiveness evaluations have been concluded. This deferment is not related to the SSC amendment issue, nor does deferment equate to remedy failure. Upon completion of the Phase I evaluations, the USEPA will determine what, if any, OU2 Phase II remedial actions should be implemented.

Response to Comment H1-7

The Administrative Record for the 2002 OU3 ROD was completed when the ROD was finalized. Following finalization of a ROD, the USEPA's normal practice is to file post-ROD documentation in the "Site File." The documents cited in the comment are present in the OU3 Site File. When designing the Lower Basin remedial actions, the USEPA will consider the Bookstrom et al. report as well as any other available and relevant information and data.

USGS correct the report to accurately describe the nature of EPA's remedy selection."

"USGS' use of the term "relatively mildly contaminated" may mislead readers about the extent of contamination in waterfowl feeding areas."

"While the ROD establishes the general concept, intent, and goals of the remedy, RD and RA are where design and construction details are developed and implemented. Unfortunately, the discussion of such issues in the USGS report, without any explanation of the role of the RD phase in refining the selected elements of EPA's remedy, may mislead the readers of the report about the nature and status of EPA's remedy selection."

There are numerous similar admonishments in Ms. Dailey's letter. It is noteworthy that a revised version of the USGS report, included with an October 26, 2004 letter from Dr. Bookstrom to Karl Gustavson of the National Academy of Sciences, contains a shortened and significantly revised summary of the Lower Basin Selected Remedy. Hecla requests that the original USGS draft report, Ms. Dailey's comment letter, and Dr. Bookstrom's letter with attachments (copies included on the enclosed compact disk) be included in the Administrative Record for the Basin. H1-7

Treatment of Canyon Creek comprises another area of continuing uncertainty. The Selected Remedy includes passive treatment of up to 60 cubic feet per second of flow from the Canyon Creek drainage. Such passive treatment is to be implemented in "treatment ponds" using "permeable reactive barriers." Unfortunately, and as tacitly acknowledged in Section 5.3.3.1 of the 5Y Review, EPA never conducted the necessary treatability studies to determine if such passive treatment can feasibly be implemented prior to including it in the Selected Remedy. This contradicts EPA's own CERCLA guidance, which specifically identifies treatability studies to determine feasibility/implementability as part of the RI/FS (i.e., pre-ROD) process. In addition, EPA specifically excluded passive treatment of Canyon Creek from evaluation in the FS against CERCLA criteria. EPA itself has now seriously questioned the feasibility of passive treatment of Canyon Creek,[1] as memorialized among other places in a memorandum from Chuck Vita (URS) to Bill Adams (EPA) dated August 19, 2003. In that memorandum, Dr. Vita states "*It now appears that there is sufficient information to question whether passive treatment of Canyon Creek surface water could successfully meet the goals identified in the ROD.*" Hecla requests that Dr. Vita's memorandum (copy included on the enclosed compact disk) be included in the Administrative Record for the Basin. EPA's current treatability study efforts apparently are now focused primarily on active instead of passive water treatment. Overall, it appears that EPA still has no idea how it will treat waters from Canyon Creek, as mandated by the ROD. As confirmed by the 5Y Review, such determination is again deferred to vague studies to be conducted in an undefined future time line. H1-17

[1] Defendants' expert, Daniel Dupon, concludes in his August 2004 expert report that there is no evidence in the Administrative Record or other wise to support selection of a passive treatment remedy for Canyon Creek.

4

Response to Comment H1-17

CERCLA, the NCP, and relevant guidance provide the USEPA with the flexibility to use treatability studies or pilot studies to refine remedial alternatives at particular sites during the remedial design and remedial action. The USEPA frequently takes advantage of this flexibility and is taking advantage of this approach in OU3.

The OU3 ROD provides for the performance of pilot studies on potential treatment technologies, including passive and active technologies. The OU3 ROD also includes performance criteria to evaluate potential treatment technologies. Consistent with the OU3 ROD, the USEPA is performing a two-phase treatability study of water treatment systems. Phase I of this study has been completed and focused on the identification of existing conventional technologies, and the performance of limited laboratory treatability testing to make recommendations for a Phase II effort. Based upon the results of Phase I, the USEPA believes that it is possible to meet the treatment goal of reducing 50 percent of the dissolved zinc load from Canyon Creek to the South Fork of the Coeur d'Alene River. Phase II includes a pilot field test of at least one of the active treatment technologies identified in Phase I and further development of other technologies, including aerobic and anaerobic passive technologies. These pilot studies will provide operational and performance information to enable development of a remedial design for the preferred treatment system. The USEPA expects these Phase II studies to be completed during the winter of 2006.

H1-8

River bed dredging in the Lower Basin comprises another example of continuing uncertainty with regard to the Selected Remedy that persists within the 5Y Review. The Selected Remedy includes removal of up to 2.6 million cubic yards of sediment from the Coeur d'Alene River bed, as noted in Section 5.1.2.2 of the 5Y Review. However, the 5Y Review makes no further mention of this dredging "pilot project." Issues of how EPA will dredge and dewater this material, what EPA will do with the water that is removed from the sediment, how EPA will transport the sediment to a repository or repositories, where the repository or repositories will be located, and how the repository or repositories will be designed remain unaddressed.

H1-9

The 5Y Review employs a double standard when assessing the effectiveness of actions implemented by EPA relative to assessing the effectiveness of actions implemented by the UMG.

In the 5Y Review, EPA evaluates UMG-led remedial actions within OU2 less favorably than actions performed under its own supervision for OU2. Circumstances which are considered to be protective for EPA's remedial work are judged not to be protective for PRP remedies. In general, it appears that EPA is attempting to point out how well their remedies are performing compared to similar remedies implemented by the UMG.

An obvious example of this double standard is EPA's comparison the revegetation portion of the Page Pond remedy, where the UMG is the responsible entity, to the Bunker Hill Hillsides remedy, where EPA is the responsible entity. One of the deficiencies listed as affecting the protectiveness (both current and future) of the Page Pond remedy is a small area of unsuccessful revegetation on the North Dike (pg 4-57). Yet this same problem with the Hillside remedy, where over 50 acres still has less than 25% cover (pg 4-22) and at least two thirds of the approximately 1,100 acres have not yet met revegetation goals set forth in the 1992 OU2 ROD (see previous comment), is not even mentioned as a possible deficiency in the remedy protectiveness.

Comparison of the Page Pond remedy with the Bunker Creek remedy, where EPA is the responsible entity, provides another example of this double standard. When judging the protectiveness of the Page Pond remedy, the issue of the remedy not yet being fully implemented was declared by EPA to not be protective, both currently (<1 year) and in the long term (>1 year) (Table 4-32), with no supporting discussion of how or why the remedy is not protective. In the 5Y Review, EPA states that Bunker Creek waters do not currently meet AWQC and that contaminated sediments are still present in the creek, Nevertheless, neither of these conditions was declared to affect the current protectiveness of the remedy (Table 4-51).

H1-10

EPA's inability to resolve the "SSC impasse" with the State of Idaho within the Box, as discussed in the 5Y Review, results in significant ongoing harm to the environment in the Upper Basin and has significant negative repercussions relative to the remedy purportedly "selected" for Canyon Creek.

Response to Comment H1-8

The interim OU3 ROD describes cleanup work that will occur over approximately 30 years to address the mining contamination in the Coeur d'Alene Basin. As both the OU3 ROD and the five-year review report note, the USEPA's first priority is to remediate residential and recreational areas that pose direct human health risks. Subsequent actions will include cleanup of areas that pose ecological risks, including the dredging pilot project. Since we have not yet entered the planning or remedial design phase for the dredging project, the USEPA has not yet addressed the technical considerations raised in the comment. These issues will be carefully evaluated during the remedial design phase. See response to comment H1-17.

Response to Comment H1-9

The USEPA does not agree that a double-standard has been applied when assessing the effectiveness of the Upstream Mining Group's (UMG's) actions vs. the USEPA's actions. CERCLA Section 121(c) requires the USEPA to perform a review of remedial actions that will result in hazardous substances, pollutants, or contaminants remaining at the site at least every five years. The purpose of the review is to assure that the remedial actions are protective of human health and the environment regardless of who implemented the remedy.

The issue at the Page Pond in the North Channel (referred to in the comment as North Dike) is exposed tailings. This represents a much greater level of risk than exposed hillside areas which never had tailings and have much lower levels of metal contamination. In order to ensure

protectiveness, revegetation of tailings is much more critical than revegetation of hillside areas.

For the hillsides remedy, the 1992 OU2 ROD discusses the goal of achieving 85 percent ground cover by plants within 8 to 12 years of starting remedial actions. Therefore, revegetation activities are still being conducted within this timeframe. In addition, Section 4.3.1.3 of the final five-year review report states that about 80 percent of the landscape meets the ROD's plant cover performance goal and that much of the remaining landscape contains substrate such as rock with little opportunity for sustainable vegetation. Based upon 2004 monitoring data, 85.3 percent of the landscape had 50 percent or greater cover (Class 3 or Class 4), meeting the plant cover interim performance standards (IPS) for the hillsides project. This value represents an increase of 5 percent from the previous year's result. In 2004, 14.7 percent of the hillsides landscape had less than 50 percent cover and did not meet performance standards for this metric. Of this latter area, three-quarters contained at least 25 percent cover, with only 42 acres (3.8 percent of the total treated area) containing less than 25 percent cover. Section 4.3.1.3 also states that areas that do not revegetate with current treatments will be further evaluated.

Regarding the Bunker Creek remedy discussion, the USEPA has revised Table 4-51 (Summary of Bunker Creek Remedy Issues) in the final five-year review report to reflect that not meeting ambient water quality standards (AWQS) affects current protectiveness.

Response to Comments H1-10 and H1-11

As stated in response to comment H1-6(E), the collection and treatment of groundwater "seeps" north of the CIA has been deferred until Phase I OU2 remedial action effectiveness evaluations have been concluded, not because of the 2001 OU2 ROD Amendment SSC "impasse." These evaluations will include an update to the conceptual site model (CSM) in order to evaluate alternatives for addressing groundwater contamination. Phase I remedial action effectiveness evaluations must be completed before determining an appropriate course of action to address groundwater contamination. There is currently insufficient groundwater and hydrogeological information to determine if a pump-and-treat system would be effective at all in reducing levels of contamination in the South Fork of the Coeur d'Alene River. An expanded description of the Phase I evaluations is included in Section 4.5 of the final five-year review report (Performance Evaluation of OU2 Remedy).

In response to the second part of the comment, the USEPA is well aware of the State of Idaho's concerns regarding implementation of the remedy within Canyon Creek and the Box. The USEPA is evaluating a range of treatment options and approaches for Canyon Creek in order to identify the most cost-effective remedy that would eventually meet the goals of the 2002 OU3 ROD. The State of Idaho is a key participant in this evaluation process and has been supportive of the approach taken by the USEPA to-date on this issue.

The 5Y Review cites numerous instances where EPA's inability to reach agreement with the State of Idaho regarding its SSC has postponed implementation of key aspects of the remedy implementation.

One example is the collection and treatment of groundwater to the north of the Central Impoundment Area ("CIA"; i.e., the "CIA seeps" area), which was included in the 1992 ROD for OU2 (Box unpopulated areas). Groundwater inflow to the South Fork in the CIA area is documented as a significant source of zinc (in fact, EPA's own studies indicate that the Box provides over half of the dissolved zinc to the South Fork). It is generally accepted that it would be relatively simple and inexpensive to capture this water and direct it to the Central Treatment Plant ("CTP"), an existing active treatment facility, to significantly reduce metal loadings in the South Fork. However, due to the "SSC impasse," EPA has not undertaken this obvious and relatively low-cost action and, therefore, significant zinc loadings to the South Fork continue.

EPA has selected treatment of Canyon Creek by an as-yet unidentified method in an area where no treatment facility currently exists. This treatment remedy is likely to be very expensive and will be contingent upon the State of Idaho assuming its share of operations and maintenance costs. As EPA is well aware, the State has raised similar concerns about remedy selection and implementation in Canyon Creek. The CIA seep impasse highlights one of the major issues for the feasibility or implementability of any treatment option for Canyon Creek flows. For this and other reasons, EPA should use this 5-year review exercise to re-examine its position on the role and timing of source control activities in Canyon Creek. Refusal to do so, given the evidence, would be arbitrary.

H1-10

June 30, 2005

HECLA MINING COMPANY'S RESPONSE TO SPECIFIC STATEMENTS CONTAINED IN EPA'S DRAFT SECOND FIVE-YEAR REVIEW REPORT

OU1 Area 1 Populated Areas of the Bunker Hill Superfund Site "Box"

- *Page 3-5, Starting in 2001 and continuing through 2004, the PRPs did not fully comply with the Consent Decree work obligations. Therefore, USEPA and IDEQ partially took over the populated areas cleanup using a scoping and remediation process similar to the one used by the PRP's. USEPA and IDEQ conducted cleanup work during the 2002-2004 construction seasons.*

H1-12

EPA's statement is misleading. During the period 2001 through 2004, a number of events occurred which modified the Consent Decree obligations of both Asarco and Hecla. All of these modifications were made either in connection with orders of the United States District Court or agreements with EPA. In one case, the work modification came as a result of the District Court's ruling on the Motion to Modify the Consent Decree combined with the end of the construction season. Another example was the agreement between EPA and Asarco creating an environmental trust fund that resulted in a reduced Asarco expenditure for Consent Decree work. This latter agreement also resulted in an agreement between EPA and Hecla with respect to the amount of work Hecla was responsible for during this period.

- *Page 3-6 to 3-9, Table 3-2 Yard Soil Remediation Progress1989-2004. Footnote – Based on PRP soil database, residential yards only. Numbers will vary from PRP summaries because discrete areas were not counted here. 100 percent agreement between the tax assessor and the PRP soil database is not expected.*

H1-13

The remediation totals for discrete areas were excluded from these tables. A large portion of the discrete areas that were remediated were completed as part of the annual "high-risk" remediation program but are excluded from the tables and subsequently the tables do not show the overall reduction in soil lead concentration. The PRP soil database numbers are accurate.

- *Page 3-12 to 3-13, Rights-of-Way Soil Concentrations, Widespread recontamination of ROWs to levels of human health concern has not been observed to date. However, surface and subsurface contamination remaining in the Box and the lack of adequate infrastructure to protect against flooding poses a risk of recontamination. In general, the remediation has been effective in capping the contamination but may not be sustainable in areas such as road shoulders and alleys, where heavy use may cause dislocation and compaction.*

H1-14

Response to Comment H1-12

The Hecla Mining Company and ASARCO, Inc. did not fully comply with the terms of the Consent Decree and perform all of the required cleanup work. As a result, the USEPA and the IDEQ took over a significant portion of the work that the Hecla Mining Company and ASARCO, Inc. would not perform.

Response to Comment H1-13

The footnote for Table 3-2 in the five-year review report already indicates that the discrete areas are not included in the table numbers. Comment noted.

Response to Comment H1-14

Comment noted.

H1-14

The first five-year review also stated concerns with the recontamination of the rights-of-way and there has been discussion as to whether the remedy for rights-of-way, gravel removal and replacement, is effective. The report is not currently recommending any corrective action or modification to the remedy. We believe that recontamination has not been demonstrated to be a problem.

H1-15

- *Page 3-28 to 3-32, Institutional Controls Program, General Comments*

Settling Defendants performed an evaluation of the Institutional Controls Program (ICP) at the request of EPA/IDEQ for the Second Five-Year Review. Settling Defendants submitted a Five-Year review report to EPA/IDEQ on March 11, 2005. The report evaluated the individual components of the ICP program and provided recommendations, concerns and solutions for each of those components. Settling Defendants did not receive any comments from EPA/IDEQ to this document. Following review of the May 2005 EPA Public Review Draft Second Five-Year Review Report, it does not appear that any of the recommendations, concerns and solutions contained in the Settling Defendants' report were incorporated into the EPA Second Five-Year Review document. The only mention of the Settling Defendants' Five-Year Review document appears to be in the list of References at the back of the report: Section 3.4 References - UMG. 2005b. Bunker Hill Superfund Site 2nd 5-Year Review Report. Prepared by MFG, Inc. The EPA Second Five-Year Report does reference a technical memorandum in Section 3.2.1.5 on Page 3-28 entitled 2005 Five-Year Review of Institutional Controls Program Box Issues (TerraGraphics 2005c). The EPA document states that a more thorough discussion of the Box ICP can be found in this document. Settling Defendants were not aware that this document existed until it was referenced in the EPA report. The Settling Defendants 5-year review report should be part of the EPA Second 5-year review document (see attached Bunker Hill Superfund Site 2nd 5-Year Review Report. Prepared by MFG, Inc.)

Page 3-31 contains a discussion of the total costs spend for funding the ICP.

The State of Idaho and the PRPs share general ICP costs that apply to activities in both OU1 and OU2. The PRPs fund 84 percent of the general costs for OU1 and the State pays 16 percent for OU2. The costs for operating the ICP during the last 5 years, including the general costs, have been $794,764, with annual expenditures averaging about $159,000. The funding for the OU1 program has been provided by the PRPs, who have missed two payments over the last 5 years. During those times, the State of Idaho had to fund the ICP to fill the gap. The PRPs are now current with their funding commitment to the ICP. The total cost of the OU1 ICP program for the last 5 years has been $665,317 with annual expenditures averaging $133,063.

PRP funding of the ICP program is now up to date.

The statement made in the report that the average annual costs of the program over the past years is $133,063 supports the Settling Defendants' position pertaining to the ICP FY 2006 proposed budget. The ICP submitted a proposed FY 2006 budget of $249,904.

Response to Comment H1-15

The final five-year review report has been revised to include, along with the reference, a notation that the UMG completed a five-year review that includes a discussion of the OU1 ICP. The National Academies' National Research Council pre-publication report also includes recommendations related to the Institutional Controls Program. On page 159, the pre-publication report recommends that "long-term support of institutional controls programs should be provided to avoid undue human health risks from recontamination."

The USEPA has met with the UMG, along with the IDEQ and the Panhandle Health District (PHD), to discuss the specific issues related to the FY2006 ICP budget and proposals for expanding Page Repository. Discussions on these two topics are ongoing.

Settling Defendants sent EPA/IDEQ/PHD a letter stating that they would not accept the inflated FY 2006 budget figure in its current form. The letter went on to state the following:

"In comparison with previous years, the FY 2003 total personnel costs were approximately $94K. The budgeted FY 2005 personnel costs were approximately $120K, which was roughly a 30% increase over the 2003 program costs. The budget for FY 2006 proposes personnel costs of approximately $205,000. This is nearly a 120% increase over the 2003 program costs and over 70% increase to the FY 2005 budgeted costs."

The ICP budget for numerous years prior to the FY 2005 budget averaged a total of $120,000 per year. The proposed increase to the ICP FY 2005 budget was explained as a 10% increase in both benefits and indirect costs coupled with a "one time only" cost of approximately $30,000 for a new pick-up truck. Given the explanations provided with the FY 2005 budget, logically it would seem that the budget for the FY 2006 program should reflect almost a 10% increase to the $120,000 previous program costs or approximately $130,000.

In addition to the personnel costs issues, it has become apparent that the ICP is spending more hours on non-populated areas than in past years due to the current and upcoming construction projects in the non-populated areas. Therefore, the UMG is requesting that the ICP program administrator and Oversight Committee re-evaluate the appropriation of hours for the FY 2006 and future budgets based on these issues.

Settling Defendants have sent a second letter to EPA/IDEQ/PHD regarding the need for a re-evaluation and adjustment to the 84% - 16% split between the populated versus non-populated areas ICP funding arrangement. The Settling Defendants are requesting the percentage amount for the non-populated areas be increased to reflect the current and future anticipated increase to the activity in the non-populated areas of the site.

Page 3-31, contains some discussion regarding the long-term disposal capacity at the Page Repository and the need for a new or expanded facility.

Long-term disposal capacity at Page is a concern, and a new or expanded facility will be required to accommodate future needs. Contaminated materials are expected to be generated from installation and reconstruction of old and failing infrastructure, as well as continued economic development in OU1. The ability to dispose of contaminated soil, construction materials, and used residential carpets is an essential baseline requirement for operating a successful ICP. The present value costs of developing a new ICP disposal facility has been estimated at $11 million to $24 million.

Settling Defendants have submitted a Technical Memorandum to EPA/IDEQ proposing a three-phase expansion to the existing Page Repository to address the need for long-term disposal capacity. The Settling Defendants are only responsible for the disposal of materials generated from Area 1, the populated areas, of the Bunker Hill Superfund Site.

The State of Idaho is responsible for the disposal of materials generated from Area 2, the non-populated areas of the Bunker Hill Superfund Site. The reallocation issue discussed above will impact the level of commitment that will be required from the Settling Defendants and the State, respectively, for the ICP long-term disposal and funding requirements.

H1-15

OU2 Area 2 Non-Populated Areas of the Bunker Hill Superfund Site "Box"

It should be noted that all activities associated with the ICP at the Page Repository are the joint responsibility of the OU1 and OU2, the Settling Defendants and the State of Idaho including expansion, maintenance, O & M and the need for repository vehicle decontamination. The reference in the OU2 section of the report needs to be modified to include the State of Idaho as a party responsible for the action: *Page 4-57 Table 4-33, Repository Vehicle Decontamination: Evaluate appropriate decontamination improvement and put measures in place to reduce the potential for recontamination.*

H1-16

The OU2 section of the report contains references to the PRPs' responsibilities. The Settling Defendants' Consent Decree specifically provides that the Settling Defendants' Consent Decree work is limited to Area 1 of the site.

Response to Comment H1-16

The final five-year review report has been revised to include the PHD and the IDEQ in the tables for Page Ponds Repository Vehicle Decontamination Recommendations and Follow-up Actions. In addition, text has been added to Section 4.2.1 of the final report to indicate that Page repository costs are shared for OU1 and OU2.

The Settling Defendants' Consent Decree obligations are identified in the 1994 Consent Decree and include implementation of the Page Pond Closure Remedial Action Work Plan. Page Pond is included in the OU2 section of the final report because the Page Pond selected remedy was included in the Non-Populated Areas 1992 ROD.

Charles and Judy Kramer

Letter - C3. Signatory - Charles Kramer

Harrison, Idaho
July 27, 2005

Tamara Langton
U.S. Environmental Protection Agency
1200 Sixth Ave.
ECL-113
Seattle, WA 98101

Dear Ms Langton:

We are impressed with the second five-year review for Bunker Hill Mining and Metallurgical Complex Superfund Site, Operable Units 1, 2, and 3.

We are particularly interested in OU3 ROD due to home area of the Harrison Flats east of Harrison, ID. The goal of full protection of human health and the environment in the basin is an absolute must.

C3-1 Contrary to the pulicly expressed of some few local politicians, we firmly believe that 30-year plan is necessary if the project is to be completed properly. The continuing particulate lead recontamination of the river system requires strict attention.

C3-2 The UPRR ROW removal action which resulted in the Trail of The Coeur d' Alenes is an absolute marvel. What a boon to the communities along the ROW! Local citizens and thousands of tourists are making great use of this trail. It is a great solution to a seemingly impossible problem.

C3-3 Keep up the fine work your agency is doing in this region. We thank you for making copies of the review plan available at the open house in Rose Lake in June.

Charles F. Kramer and Judy M. Russell-Kramer
6307 E. Sunrise Dr.
Harrison, ID 83833-7637

Response to Comment C3-1

We appreciate your support.

Response to Comment C3-2

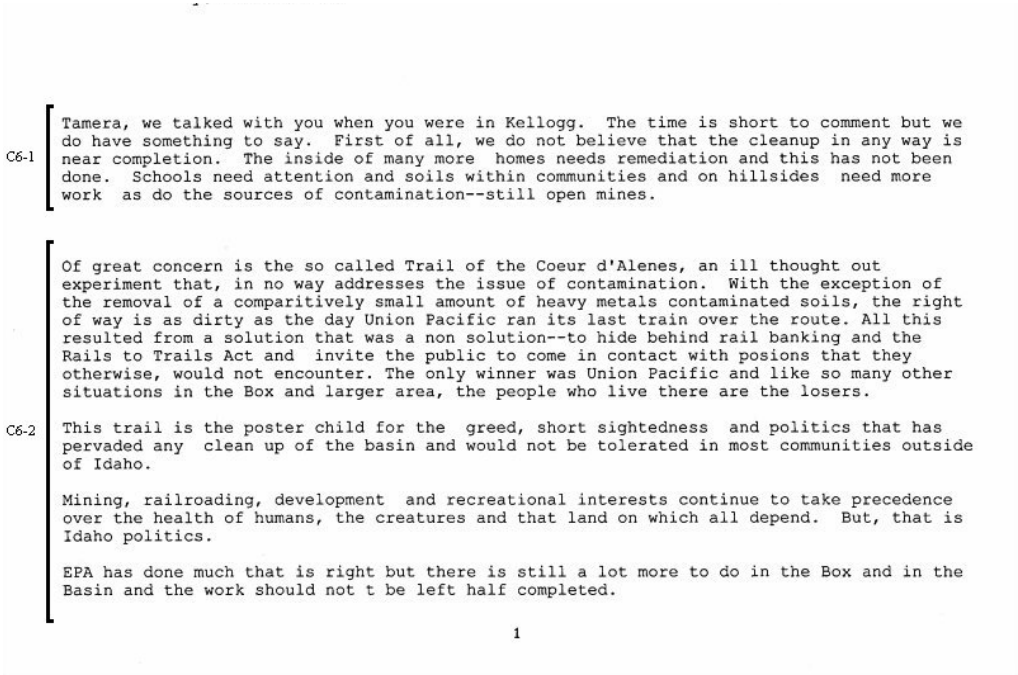
Thank you for your kind comment.

Response to Comment C3-3

You are welcome.

Robert McCroskey

Letter - C6. Signatory - Robert McCroskey



C6-1 Tamera, we talked with you when you were in Kellogg. The time is short to comment but we do have something to say. First of all, we do not believe that the cleanup in any way is near completion. The inside of many more homes needs remediation and this has not been done. Schools need attention and soils within communities and on hillsides need more work as do the sources of contamination--still open mines.

Of great concern is the so called Trail of the Coeur d'Alenes, an ill thought out experiment that, in no way addresses the issue of contamination. With the exception of the removal of a comparitively small amount of heavy metals contaminated soils, the right of way is as dirty as the day Union Pacific ran its last train over the route. All this resulted from a solution that was a non solution--to hide behind rail banking and the Rails to Trails Act and invite the public to come in contact with posions that they otherwise, would not encounter. The only winner was Union Pacific and like so many other situations in the Box and larger area, the people who live there are the losers.

C6-2 This trail is the poster child for the greed, short sightedness and politics that has pervaded any clean up of the basin and would not be tolerated in most communities outside of Idaho.

Mining, railroading, development and recreational interests continue to take precedence over the health of humans, the creatures and that land on which all depend. But, that is Idaho politics.

EPA has done much that is right but there is still a lot more to do in the Box and in the Basin and the work should not t be left half completed.

1

Sincerely,
Robert M. McCroskey
Geraldine H. McCroskey
2537 W. Chaumont Lane
Coeur d'Alene, Idaho 83815

Robert McCroskey
bobnjerimccroskey@earthlink.net

Response to Comment C6-1

In response to your first comment, the USEPA agrees that certain cleanup actions are not yet complete. Since your comment did not provide a specific geographical area of concern, below is a summary of the status of cleanup actions for each operable unit at the Bunker Hill Site. Please see the final five-year review report for more details.

Section 3 of the five-year review report discusses the remedial actions completed and to be completed in Operable Unit 1 (the populated areas of the Box), including house dust remediation. Cleanup of contaminated soils in communities and schools in Operable Unit 1 is part of the residential cleanup program. All residential remediation in Operable Unit 1 is expected to be complete by 2006. The five-year review report notes that the USEPA, along with other agencies, determined that home interiors would not be remediated until exterior contamination sources were controlled. Therefore, the need for interior cleaning will be evaluated after residential soil remediation is complete, taking into consideration ongoing house dust monitoring results and the results of the two pilot studies.

Section 4 of the five-year review report discusses the Phase I remedial actions completed and to be completed in Operable Unit 2 (the non-populated areas of the Box). Section 4.3.1 specifically describes the hillsides cleanup actions. Phase I cleanup actions include extensive source removal and containment efforts, and treatment of acid mine drainage. Phase I also includes studies to determine if these actions have improved water quality across the Site. Phase I began in 1995, and source removal and containment activities are near completion. Studying the effects of Phase I is now underway. Phase II will consider any shortcomings of Phase I and may propose additional cleanup actions in Operable Unit 2.

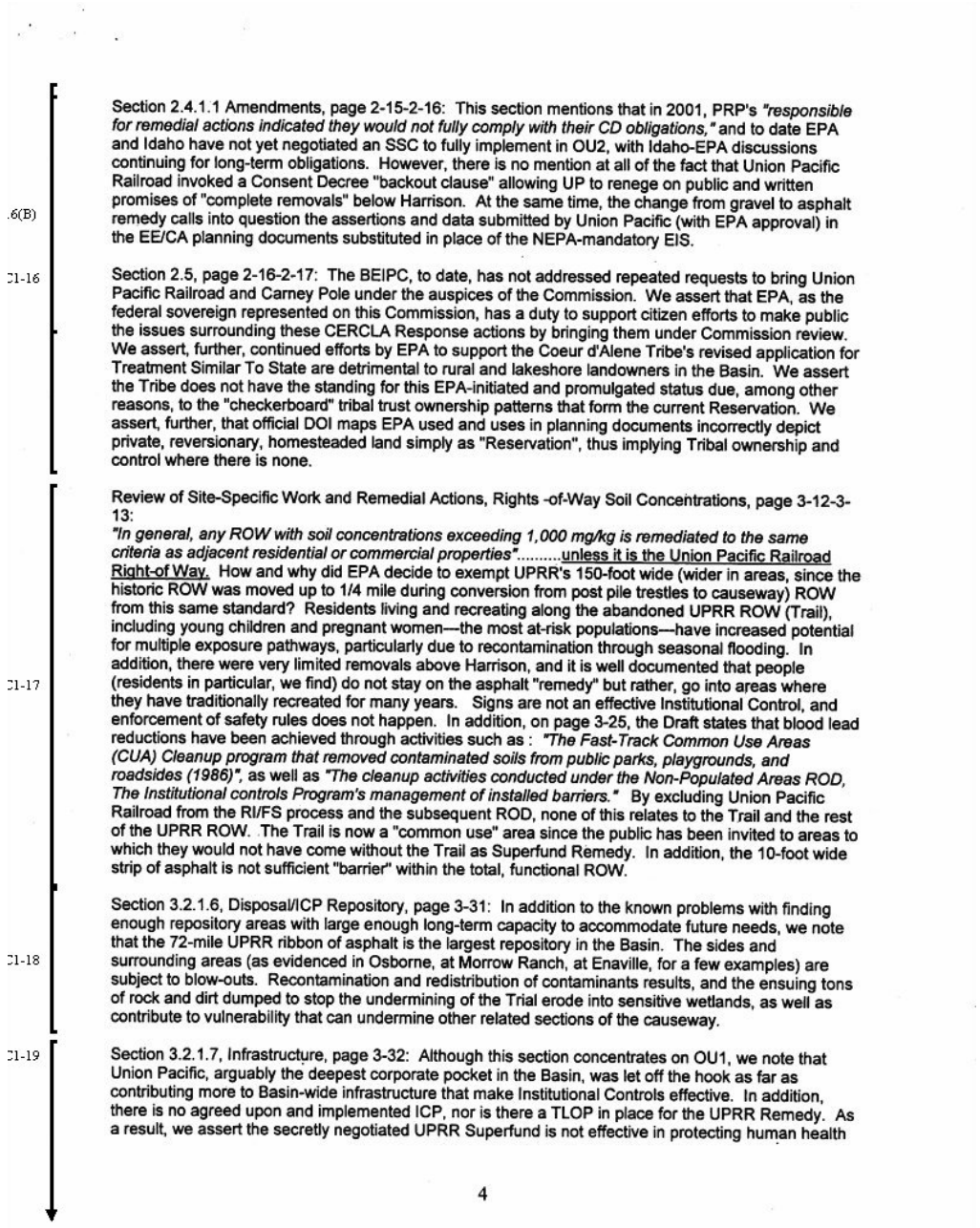
Section 5 of the five-year review report discusses the remedial actions completed and to be completed in Operable Unit 3 (Coeur d'Alene Basin). The 2002 Operable Unit 3 interim Record of Decision (ROD) is a 30-year cleanup plan. Prior to this ROD, some of the most highly impacted source materials were contained via removal actions to reduce human health and environmental risks. Since the signing of the ROD, other cleanup actions and studies have been initiated including the Basin yard cleanup program.

Per statute (CERCLA Section 121(c)), the USEPA is required to conduct a review at least every five years of remedies that result in hazardous substances, pollutants, and contaminants remaining onsite. Through this ongoing five-year review process, the USEPA will continue to evaluate those cleanup actions that have been completed, those currently underway, and those that are planned for the future in order to determine if the remedies are or will be protective of human health and the environment.

Response to Comment C6-2

In response to comment C6-2, please refer to section 5.8 of the five-year review report for details on the removal and remedy performance assessment of the Union Pacific Railroad (UPRR) removal action (Trail of the Coeur d'Alenes).

The UPRR Wallace-Mullan Branch right-of-way removal action resulted in the removal, decontamination, and salvage for reuse of over 46,000 tons of rail and 132,000 rail ties and the removal and disposal of over 175,000 cubic yards of mine-waste-contaminated soils. In addition, over 200,000 cubic yards of barrier materials were placed along the right-of-way to construct the trail and trail heads that function as a barrier between the contaminants and the trail users. The asphalt and gravel barriers combined with the removal of mine-waste-contaminated materials from the reservation resulted in the isolation and/or removal of soils that contained from thousands to ten-thousands parts per million lead. The technical document that was the driver for this action, also described in the five-year review report, is the Engineering Evaluation/Cost Analysis (EE/CA), which presented an alternative analysis of several options for dealing with the UPRR right-of-way. A component of the EE/CA, the Streamlined Risk Assessment, looked at health risk issues associated with building a recreational trail within the realities of the site. The remedy was implemented in accordance with the EE/CA and the associated obligations of the UPRR. The UPRR is obligated, in perpetuity, for maintenance and repairs that are required to preserve the integrity of the barriers. The five-year review identifies some issues that will require additional monitoring on the trail. Given the infancy of the remedy, additional reviews will be needed to assess the performance of the trail and associated remedies in the future.



.6(B)

Section 2.4.1.1 Amendments, page 2-15-2-16: This section mentions that in 2001, PRP's *"responsible for remedial actions indicated they would not fully comply with their CD obligations,"* and to date EPA and Idaho have not yet negotiated an SSC to fully implement in OU2, with Idaho-EPA discussions continuing for long-term obligations. However, there is no mention at all of the fact that Union Pacific Railroad invoked a Consent Decree "backout clause" allowing UP to renege on public and written promises of "complete removals" below Harrison. At the same time, the change from gravel to asphalt remedy calls into question the assertions and data submitted by Union Pacific (with EPA approval) in the EE/CA planning documents substituted in place of the NEPA-mandatory EIS.

21-16

Section 2.5, page 2-16-2-17: The BEIPC, to date, has not addressed repeated requests to bring Union Pacific Railroad and Carney Pole under the auspices of the Commission. We assert that EPA, as the federal sovereign represented on this Commission, has a duty to support citizen efforts to make public the issues surrounding these CERCLA Response actions by bringing them under Commission review. We assert, further, continued efforts by EPA to support the Coeur d'Alene Tribe's revised application for Treatment Similar To State are detrimental to rural and lakeshore landowners in the Basin. We assert the Tribe does not have the standing for this EPA-initiated and promulgated status due, among other reasons, to the "checkerboard" tribal trust ownership patterns that form the current Reservation. We assert, further, that official DOI maps EPA used and uses in planning documents incorrectly depict private, reversionary, homesteaded land simply as "Reservation", thus implying Tribal ownership and control where there is none.

21-17

Review of Site-Specific Work and Remedial Actions, Rights -of-Way Soil Concentrations, page 3-12-3-13:
"In general, any ROW with soil concentrations exceeding 1,000 mg/kg is remediated to the same criteria as adjacent residential or commercial properties".....unless it is the Union Pacific Railroad Right-of Way. How and why did EPA decide to exempt UPRR's 150-foot wide (wider in areas, since the historic ROW was moved up to 1/4 mile during conversion from post pile trestles to causeway) ROW from this same standard? Residents living and recreating along the abandoned UPRR ROW (Trail), including young children and pregnant women—the most at-risk populations—have increased potential for multiple exposure pathways, particularly due to recontamination through seasonal flooding. In addition, there were very limited removals above Harrison, and it is well documented that people (residents in particular, we find) do not stay on the asphalt "remedy" but rather, go into areas where they have traditionally recreated for many years. Signs are not an effective Institutional Control, and enforcement of safety rules does not happen. In addition, on page 3-25, the Draft states that blood lead reductions have been achieved through activities such as : *"The Fast-Track Common Use Areas (CUA) Cleanup program that removed contaminated soils from public parks, playgrounds, and roadsides (1986)"*, as well as *"The cleanup activities conducted under the Non-Populated Areas ROD, The Institutional controls Program's management of installed barriers."* By excluding Union Pacific Railroad from the RI/FS process and the subsequent ROD, none of this relates to the Trail and the rest of the UPRR ROW. The Trail is now a "common use" area since the public has been invited to areas to which they would not have come without the Trail as Superfund Remedy. In addition, the 10-foot wide strip of asphalt is not sufficient "barrier" within the total, functional ROW.

21-18

Section 3.2.1.6, Disposal/ICP Repository, page 3-31: In addition to the known problems with finding enough repository areas with large enough long-term capacity to accommodate future needs, we note that the 72-mile UPRR ribbon of asphalt is the largest repository in the Basin. The sides and surrounding areas (as evidenced in Osborne, at Morrow Ranch, at Enaville, for a few examples) are subject to blow-outs. Recontamination and redistribution of contaminants results, and the ensuing tons of rock and dirt dumped to stop the undermining of the Trial erode into sensitive wetlands, as well as contribute to vulnerability that can undermine other related sections of the causeway.

21-19

Section 3.2.1.7, Infrastructure, page 3-32: Although this section concentrates on OU1, we note that Union Pacific, arguably the deepest corporate pocket in the Basin, was let off the hook as far as contributing more to Basin-wide infrastructure that make Institutional Controls effective. In addition, there is no agreed upon and implemented ICP, nor is there a TLOP in place for the UPRR Remedy. As a result, we assert the secretly negotiated UPRR Superfund is not effective in protecting human health

4

Response to Comment C1-16(B)

Section 2.4.1.1 of the final five-year review report pertains to the Box State Superfund Contract (SSC) amendments. In the first paragraph of this section, it discusses the Potentially Responsible Parties (PRPs') non-compliance with their OU1 CD obligations for residential and common-use area response actions. In the second paragraph, it discusses a Box SSC amendment required to fully implement the 2001 OU2 ROD Amendment regarding the Minewater remedy. This SSC amendment has not yet been signed.

Neither of these discussions is relevant to the UPRR ROW cleanup actions at the Site, which were implemented under separate CDs (see response to comment C1-3, first paragraph). In addition, SSCs are not required for PRP-led cleanup actions (see the introduction to Section 2.4 in the final five-year review report for a brief explanation of the purpose of SSCs).

The portion of this comment dealing with the change from gravel to asphalt, and assertions and data submitted by the UPRR in the environmental engineering/cost analysis (EE/CA) is not relevant to the five-year review; therefore, a response is not provided.

Response to Comment C1-16

The Basin Environmental Improvement Project Commission (Basin Commission) is tasked by Idaho legislation to work on the OU3 ROD and Phase II water quality issues in the Box. The UPRR cleanup and St. Maries (Carney Pole) cleanup are not part of the OU3 ROD or the Phase II Box work. Section 2.5 in the final five-year

Mike Mihelich, Kootenai Environmental Alliance

Letter - G3. Signatory - Mike Mihelich

Kootenai Environmental Alliance

P.O. Box 1598 Coeur d'Alene, ID 83816-1598

July 27, 2005

Tamara Langton
U.S. Environmental Protection Agency
1200 Sixth Avenue
ECL-113
Seattle, WA 98101

Dear Ms. Langton:

The following comments concern the EPA Public Review Draft document "Second Five-Year Review for the Bunker Hill Mining and Metallurgical Complex Superfund Site Operable Units 1, 2, and 3 Idaho and Washington".

National Academy Sciences/OU3:
In Section 5 of the EPA document, 5.1 is an Overview of OU3 Selected Remedy. It is indicated on page 5-2 the cleanup plan includes "An interim remedy of prioritized actions for protection of the environment that focus on improving water quality, minimizing downstream migration of metal contaminants, and improving conditions for fish and wildlife populations."
The NAS Executive Summary (ES), on page two includes the following statements.
G3-1 "Furthermore, the potential long-term effectiveness of proposed remedial actions is severely limited by frequent flooding events in the basin and their potential to recontaminate remediated areas with contaminated sediments. Yet, flooding apparently received little attention in EPA's selection of remedies."
On page nine of the ES the following statement is found. "To the extent that water yield and flooding can be managed through land-use practices, it is important to include these practices in schemes designed to protect human and ecosystem health."

On page 5-2 of the EPA document it is stated, "The USEPA will address the findings of the NAS study following release of the investigation report."
The EPA should examine hydrology issues such as increased water yields that are associated with past and ongoing logging activities on National Forest System (NFS) lands in the Basin.
G3-2
Regarding flooding issues cited by the NAS, the EPA flood analysis should include an examination of activities on NFS lands in the Basin and the flooding that occurred during February 1996 throughout the Coeur d'Alene River and St. Joe River system.

Sincerely,
Mike Mihelich
Mike Mihelich Forest Watch Coordinator

Response to Comment G3-1

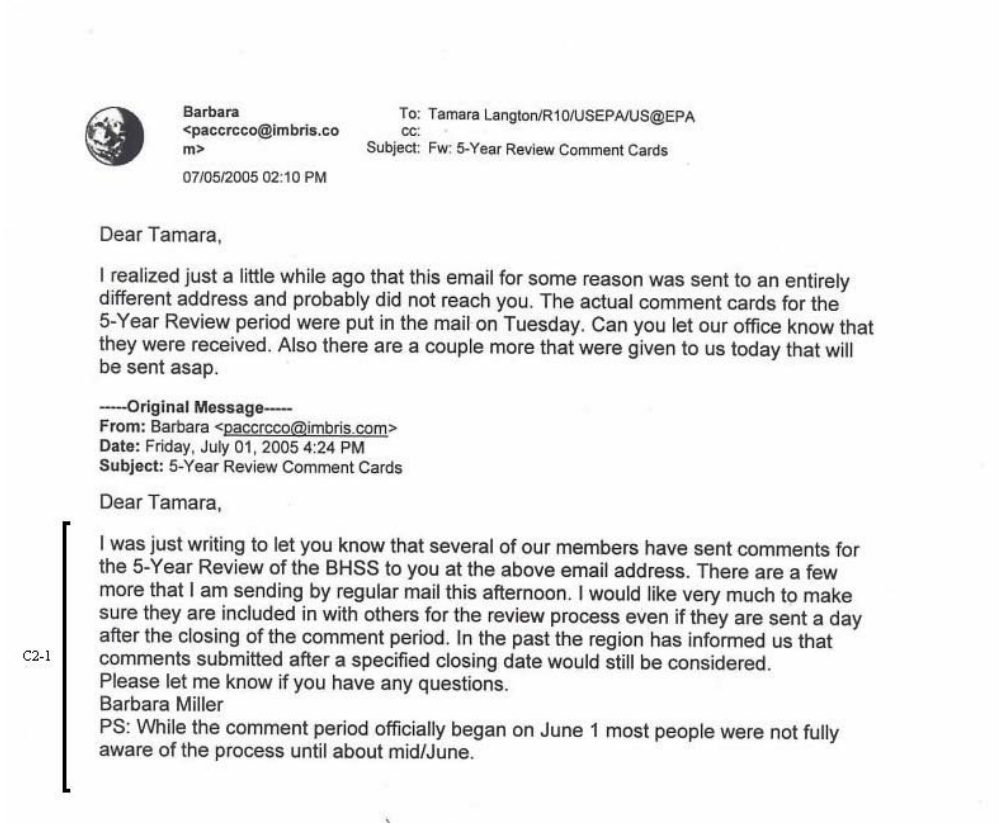
Comment noted. The USEPA is very much aware of the potential risks of recontamination of remediated areas due to flooding. The USEPA will carefully consider the NAS recommendations regarding recontamination. For example, several ongoing projects funded by Clean Water Act grant monies may inform future remedial designs to minimize the potential for recontamination and will be considered.

Response to Comment G3-2

Comment noted.

Barbara Miller

Letter - C2. Signatory - Barbara Miller



Barbara <paccrcco@imbris.com>
07/05/2005 02:10 PM

To: Tamara Langton/R10/USEPA/US@EPA
cc:
Subject: Fw: 5-Year Review Comment Cards

Dear Tamara,

I realized just a little while ago that this email for some reason was sent to an entirely different address and probably did not reach you. The actual comment cards for the 5-Year Review period were put in the mail on Tuesday. Can you let our office know that they were received. Also there are a couple more that were given to us today that will be sent asap.

-----Original Message-----
From: Barbara <paccrcco@imbris.com>
Date: Friday, July 01, 2005 4:24 PM
Subject: 5-Year Review Comment Cards

Dear Tamara,

I was just writing to let you know that several of our members have sent comments for the 5-Year Review of the BHSS to you at the above email address. There are a few more that I am sending by regular mail this afternoon. I would like very much to make sure they are included in with others for the review process even if they are sent a day after the closing of the comment period. In the past the region has informed us that comments submitted after a specified closing date would still be considered.
Please let me know if you have any questions.
Barbara Miller
PS: While the comment period officially began on June 1 most people were not fully aware of the process until about mid/June.

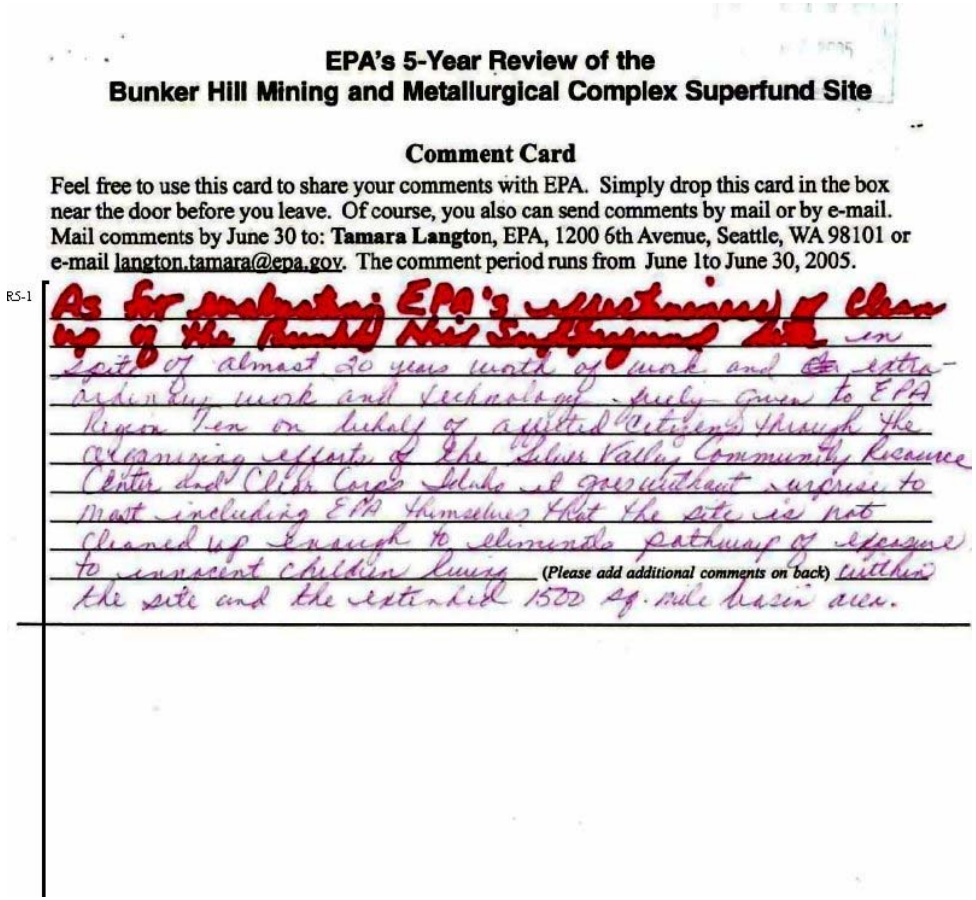
C2-1

Response to Comment C2-1

The public comment period was extended until July 30, 2005. The USEPA did receive the PAC/Community Resource Center, Co. member comments before the July 30 deadline. Thank you for submitting these comments.

Barbara Miller (#2)

Letter - CR5. Signatory - Barbara Miller2



EPA's 5-Year Review of the
Bunker Hill Mining and Metallurgical Complex Superfund Site

Comment Card

Feel free to use this card to share your comments with EPA. Simply drop this card in the box near the door before you leave. Of course, you also can send comments by mail or by e-mail. Mail comments by June 30 to: **Tamara Langton**, EPA, 1200 6th Avenue, Seattle, WA 98101 or e-mail langton.tamara@epa.gov. The comment period runs from June 1to June 30, 2005.

RS-1 As for evaluating EPA's effectiveness of Clean up of the Bunker Hill Superfund Site in spite of almost 20 years worth of work and extra-ordinary work and technology - freely given to EPA Region Ten on behalf of afflicted citizens through the organizing efforts of the Silver Valley Community Resource Center and Clark Corp. Idaho it goes without surprise to most including EPA themselves that the site is not cleaned up enough to eliminate pathways of exposure to innocent children living (Please add additional comments on back) within the site and the extended 1500 sq. mile basin area.

Response to Comment CR5-1

As noted in the five-year review report, the primary purpose of the human health cleanup is to reduce human exposure to metals. The USEPA evaluated a number of factors in selecting the human health remedy for the Bunker Hill Superfund Site and determined that a remedy that includes partial removal of contaminated soils (e.g., one-foot excavation) and capping with clean materials would be protective of human health.

Per the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(c), the USEPA is required to review remedial actions that result in hazardous substances, pollutants, or contaminants remaining onsite at least every five years. The purpose of this review is to determine if the remedial action(s) is or will be protective of human health and the environment.

The USEPA has now conducted two five-year reviews for the populated areas of the Box (Operable Unit 1) and has concluded that the selected remedy is expected to be protective of human health and the environment when completed. The USEPA will continue evaluating remedy performance every five years at this Site due to contaminants remaining in place above levels that allow for unlimited use and unrestricted exposure.

while E PA Region Ten can be credited with spending a great deal of time to achieve safe levels of lead left from a ... & other human waste

Century of pollution (much of it deliberate) the fact still remains that serious levels of lead beyond EPA's standard of 300 ppm remains in soils, hillsides, like trails and grades of the Superfund site. Homes and schools (where a standard of 400 ppm) have a range of more than 3000 ppm to 52,000 ppm of lead in them. Disclosure by HUD. EPA realators and property owners is not taking place

Meanwhile EPA Region Ten is still catering to the special mining / tourism and political interests as they did in the early 1980's when a lesser quality cleanup was negotiated by EPA and the State of Idaho for a cleanup plan

Joel Hirschhorn Sept 8, 1998 " Technical Issues Report, Bunker Hill Metallurgical Complex Superfund Site, Shoshone County, Idaho.

The Region has never fulfilled this commitment to even address a second rate plan of cleanup for Bunker Hill or the 13 issues brought for resolution after completion of the technical

RS-1

advisors with the single TAG for the BHSS.

Chuck Clarke, Sept. 17, 1998
Letter, from SVCEC

A Recent decision by EPA to allow a modification (more) of pollutants to be discharged into the South Fork of the CDA River by the Lucky Friday mine causes one to wonder about EPA's integrity in offering as much the law and technology offer for the safety of citizens while a major remediation effort is going on at the same time. In addition to the Lucky Friday mine being 2 of the 4 Idaho largest Coeur mine some pollutes. Bush Administration List, May 2005.
The five year renewal process lacks the ability to enforce a better quality of clean up and its effectiveness because of the known track record experienced by affected citizens and the conflict of interest generated by EPA doing its own review.

The public approximately 250,000 people are being exposed to the lead and mine waste of the Bunker Hill Superfund Site. Region Ten has once again as they did for nearly ten years arbitrarily rejected the renewed TAG application that would give communities support in determining the effectiveness of the work that has taken place at the site.
"The Public's Health in Kellogg has been incompletely Addressed by the Panhandle Health Dept, ATSDR, Local Health Depts. Dr. John Rosen, B Hill Technical Advisor, Nov. 10, 1998.
"It seems that we have erred on the side of protecting industries, who aren't we erring on the

RS-1

side of protecting children?" Dr. Bruce Lanphear, Children's Hospital Medical Center, Cincinnati Ohio.

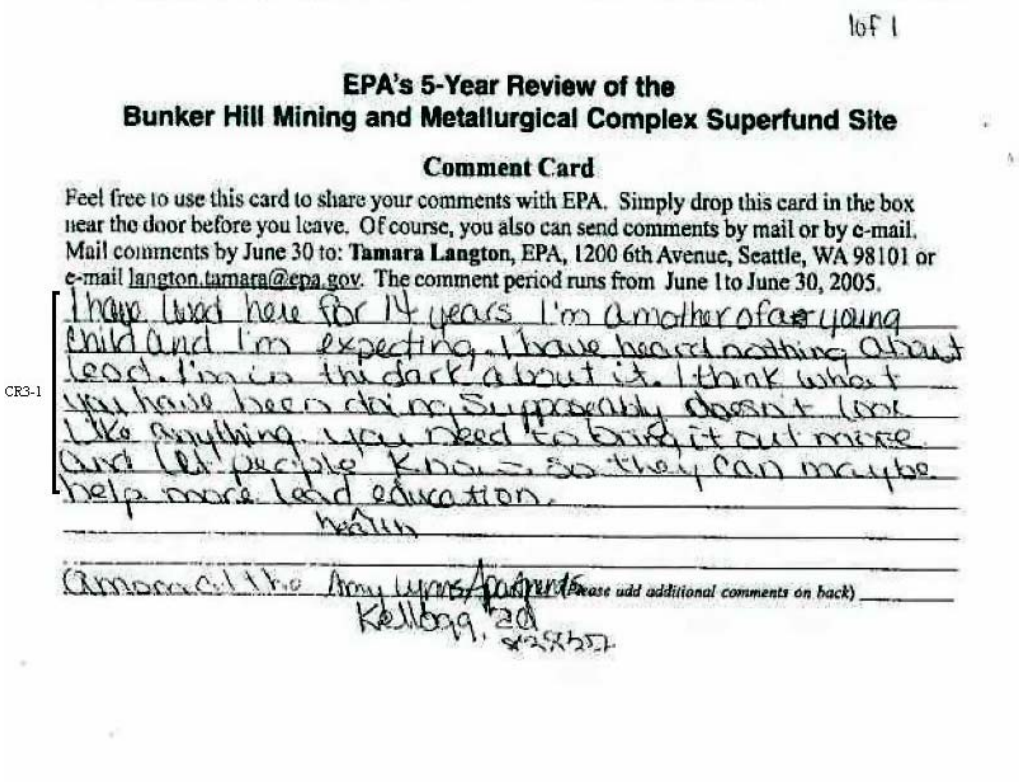
"Communities need to be informed early and on a continued basis, their input must have real impact and they must become an inherent and indispensable aspect of site remediation" Rep. Mike Crapo, Nov. 17, 1994

R5-1

Barbara Miller
SUCRE

A mother

Letter - CR3. Signatory – A mother



1 of 1

EPA's 5-Year Review of the
Bunker Hill Mining and Metallurgical Complex Superfund Site

Comment Card

Feel free to use this card to share your comments with EPA. Simply drop this card in the box near the door before you leave. Of course, you also can send comments by mail or by e-mail. Mail comments by June 30 to: **Tamara Langton**, EPA, 1200 6th Avenue, Seattle, WA 98101 or e-mail langton.tamara@epa.gov. The comment period runs from June 1 to June 30, 2005.

CR3-1 I have lived here for 14 years I'm a mother of a young child and I'm expecting. I have heard nothing about lead. I'm in the dark about it. I think what you have been doing, Supposably doesn't look like anything. you need to bring it out more. And let people know so they can maybe help more lead education.

health

Appreciate how many years (Please add additional comments on back)

Kellogg, ID

Response to Comment CR3-1

The USEPA, the Idaho Department of Environmental Quality (IDEQ),the Panhandle Health District (PHD), and others have been working for many years to provide opportunities to better inform the public about cleanup actions in their community. The USEPA welcomes any recommendations on ways to improve public outreach efforts.

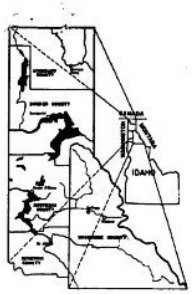
Examples of some of the outreach activities completed to-date include:

- Going door-to-door to discuss cleanup activities in the community
- Mailing quarterly newsletters and fact sheets for special events
- Holding more than 200 public meetings throughout the Basin in recent years

In addition, the PHD provides a Lead Health Intervention Program (LHIP) for area residents. The five-year review report includes a discussion of these LHIP activities, including provision of annual blood lead screening and follow-up, a vacuum cleaner loan program, and maintaining informational flyers at local grocery stores and laundromats.

Panhandle Health District

Letter - S1. Signatory - Panhandle Health District



PANHANDLE HEALTH DISTRICT I

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Home Health
WIC Clinics
Health Education
Family Planning
Well Child Conference
VD Clinics
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Lead Health Program
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June 24, 2005

Tamara Langton
USEPA
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Please note the following comments on the Second Draft Five Year Review for OU1 – 2 & 3, Bunker Hill Superfund site:

	Page	Comment
S1-1	ES-15	Table ES-4: Grouse Gulch – Description of activity matches Government Gulch **NOT** Grouse Gulch – the Lead Smelter, Zinc Plant, and Phos. Plant were in or near Government Gulch – Grouse Gulch activity was done by DG&S with Bunker Limited Partnership money.
S1-2	ES-17	Table ES-4: Industrial Complex Activity Description first sentence correct typo "demolition and haul **of** Zinc Plant debris…" I believe it should be off not of.
S1-3	ES-22	Table ES-5: Biological Monitoring issues section notes "Mitigative measures should be considered for wetland loss at West Page Swamp due to expansion of Page Repository". Additional wetlands have been developed north of the Rails to Trail from the South Fork Sewer District Lift Station west to the Pinecreek Narrows (South of I-90) and throughout the Smelterville Flats north of the Airport Runway. The number of acres created should be calculated and included in the report.
S1-4	ES-32	Table ES-7: Nabob Mine – in the last sentence of descriptions of action it notes "BLM regarded the Nabob" – I think it should say, "regraded". I saw this same error in 2 or 3 other places, but I'm not sure I marked it in all of them.

Response to Comment S1-1

This has been corrected in the final five-year review report.

Response to Comment S1-2

This has been corrected in the final five-year review report.

Response to Comment S1-3

The comment relates to the specific issues that will be considered when determining the types of mitigative measures needed to address Page Repository expansion. These specific issues have yet to be fully evaluated and, therefore, are not discussed in the five-year review report.

Response to Comment S1-4

These corrections have been made in the final five-year review report.

	ES-35	Table ES-9: Summary of Recommendations and Follow – up Actions OU3 – It notes removal actions were taken – As I remember, removal actions completed by the SVNRT's were based on Zinc levels and impacts to streams, I don't know the status of these areas with regard to lead. Streams attract children; therefore we need to be sure lead levels are below the action levels for children such that exposure in these areas are not occurring.
S1-5		
	2-2	Section 2.1.2.2: Land and Resource Use – This section notes that "current land use in OU2 is primarily Non residential, industrial, and open space ". It also notes that "future land use will be similar" – this is **not** the case, many of these areas have been largely rezoned for commercial use as well as for multi family residential and recreational uses. Government Gulch has been rezoned for **light** industrial uses.
S1-6		
	2-2	Section 2.1.3.1: The first part of the section notes that the river flood plains (CDA & Spokane) are contaminated, in the last part of this section it notes that a number of towns are also in OU3 and it lists them by name. This section should clarify the fact that with regard to Harrison, Coeur d'Alene, Post Falls, and Spokane – only those areas within those cities (flood plain / stream banks) that have been contaminated with sediment are included as areas of concern and not the entire city. This clarification will help with regard to disclosure associated with land transactions in areas not associated with contamination.
S1-7		
	2-5	Section 2.2.1: Second paragraph, last sentence, it should be noted that the Department of Environmental Quality DEQ is currently funding LHIP activities. IDHW no longer funds those activities. PHD does continue to report elevated blood lead levels to IDHW as part of their "Rules and Regulations Governing Idaho Reportable Diseases."
S1-8		
	2-19	Table 2-1: CDC emergency response to epidemic lead poisoning – comment: CDC responded to the Bunker Hill lead poisoning in 1974 & 1975 by helping to design and implement the epidemiological study conducted in those same years. The study was done in conjunction with IDHW. CDC then continued to fund LIHP activities at the site from 1985 to 1988 via a grant to IDHW. In 1989 funding was provided to IDHW by ATSDR. This funding continued from 1989 through 2001.
S1-9		

Response to Comment S1-5

The USEPA agrees with the commenter. As the five-year review report notes, the Silver Valley Natural Resource Trustee (SVNRT) and other removal actions will be evaluated in the context of the 2002 Operable Unit 3 (OU3) Record of Decision (ROD) to determine if additional remedial actions are warranted. Evaluation of human health exposure to elevated lead levels at these sites is a key consideration.

Response to Comment S1-6

This has been corrected in the final five-year review report.

Response to Comment S1-7

Rather than specifically identify portions of cities, towns, or counties that may be contaminated, Section 2.1.3.1 in the final five-year review report has been revised to identify the types of areas where mining contamination may have come to be located. Prior to implementing remedial actions in a community, soil sampling is conducted to determine if concentrations exceed action levels identified in the OU3 ROD.

Response to Comment S1-8

The third paragraph in Section 2.2.1 of the final five-year review report has been revised to reflect this comment.

Response to Comment S1-9

Table 2-1 in the final five-year review report has been revised accordingly.

S1-10

Same table – Removal actions began in OU3 in 1989 this should be confirmed, I don't believe removals were done in OU3 until sometime after the PHD – IDHW Basin study in 1996.

3-41

S1-11

Table 3-12: With regard to all tables associated with OU1 as it relates to follow-up or monitoring of the fixes employed – PHD will be involved as it relates to the ICP and its regulations to ensure barriers are managed, installed, or eliminated and restored as part of excavation or grading projects.

4-81

S1-12

Section 4-3.10.1: Notes "Most of UPRR ROW is in the Non-Populated Areas" it should read "Much of". A great deal of the trail is directly adjacent to Populated Areas including Elizabeth Park and Ross Ranch. The Trail runs directly through the entire city of Kellogg and is adjacent to residential areas along the north side of the City of Smelterville for most of the length of the town.

4-85

S1-13

Remedy Issues: This section should again note that only that part of the UPRR ROW that is in the Box is regulated by the ICP. ICP over-site for the ROW in the Basin will be by contract with the Trail owners.

4-90

S1-14

Section 4.3.11.4: Sediment removal at the Wardner structure and Upper Milo was paid for by the State of Idaho while the Watershed District was in its infancy and did not have the resources to do work. The State of Idaho also paid to connect a storm drain to the Wardner structure, to remove a large steel plate left in the Washington structure and to connect a storm drain to the Milo System in lower Kellogg.

4-98

S1-15

Section 4.3.13.3: Removal activities in the flood plain of the South Fork of the CDA River in 1999-2000 & 2001 should be tabulated as to the volume removed and the areas impacted and that information should be provided to the City of Kellogg to be included in their Federal Flood Plain Insurance Program. This should also apply to all work in the river channel for both the Box and the Basin – Shoshone & Kootenai County should receive this same information.

4-99

S1-16

Questions A – B - C: Future activities associated with the river may be required as Phase II water quality monitoring activities identify issues.

Response to Comment S1-10

Table 2-1 in the final five-year review report has been revised. The final report notes that OU3 removal actions were implemented primarily from 1997-2002, with a few occurring prior to that time and some continuing to the present.

Response to Comment S1-11

The final five-year review report has been revised to include Panhandle Health District (PHD) in the recommendations and follow-up actions tables regarding Institutional Controls Program (ICP) and ICP repository issues.

Response to Comment S1-12

This has been corrected in the final five-year review report.

Response to Comment S1-13

This has been noted in the final five-year review report.

Response to Comment S1-14

Section 4.3.11.4 (Operations and Maintenance) of the final five-year review report has been revised to reflect this comment.

Response to Comment S1-15

Per the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(c), the USEPA is required to review remedial actions that result in hazardous substances, pollutants, or contaminants remaining onsite at least once every five years. The purpose of this review is to determine if the

remedy is or will be protective of human health and the environment. This comment is not relevant to the purpose of the five-year review. This comment will, however, be forwarded to the appropriate USEPA and IDEQ staff.

Response to Comment S1-16

Table 4-69 (Recommendations) in the final five-year review report has been revised to reflect this comment.

S1-17	4-100	Table 4-70: Most of these projects were completed with state funding, maybe all of them. I don't know if that's important or not.
S1-18	4-104	4.3.14.4 Remedy Issues: Asbuilts and sample data for materials imported for these projects as well as all of the work done in OU2 by the US Army Corp, Bunker Limited Partnership, State of Idaho, or others need to be provided to the ICP for inclusion in that database.
S1-19	5-12	Section 5.1.5: It should be noted that Basin Repositories are not available for use by local citizens for disposal of soils removed by citizen or contractors doing work on private property.
S1-20	5-15	Section 5.3.1 ICP: If the Panhandle Health District is selected to include the Basin in its Box program, it will have to be the same ICP as in the Box. (Based on input from many local citizens, contractors, and elected officials, to ensure consistency area wide associated with construction projects, disposal and disclosure associated with bank loans, the existing system should simply be expanded and a new system or systems should not be developed.)
S1-21	5-37	Table 5-14 Highland Surprise Mine/Millsite (includes Nevada Stewart Mine) 3rd sentence under description of action notes "BLM regarded the upper and lower rock dumps" – I believe it should be regraded.
S1-22		This same issue appears again in the same table for Nabob Mine and Millsite in the last sentence of the Description of Action.
S1-23	5-58	Stage 2 Future Actions: You may want to mention Panhandle Health District as an entity that could play a role in managing recreational sites in the Basin. (We have been involved in developing lead health education information distributed at these and other sites and it is our phone number listed as a contact for additional health information. We may also be involved as the agency to conduct ICP activities associated with the Rails to Trail and possibly the ICP in the Basin.)
S1-24	5-95	**Technical Assessment of Silver Summit Summit Mill** – Summit is repeated in the title as well as in the second sentence of the first paragraph.

Response to Comment S1-17

Many of the miscellaneous Box projects identified in Table 4-70 were completed with state funding, but a number of these projects were completed with federal funding and one (capping of the S&P Truck Stop) was completed with PRP funding. This information has been added to Section 4.3.14.1 of the final five-year review report.

Response to Comment S1-18

Per CERCLA Section 121(c), the USEPA is required to review remedial actions that result in hazardous substances, pollutants, or contaminants remaining onsite at least once very five years. The purpose of this review is to determine if the remedy is or will be protective of human health and the environment. This comment is not relevant to the purpose of the five-year review. This comment will, however, be forwarded to the appropriate USEPA and IDEQ staff.

Response to Comment S1-19

This has been revised in the final five-year review report.

Response to Comment S1-20

Comment noted. The final five-year review report notes that the Box ICP is being used as the model for the Basin ICP development.

Response to Comment S1-21

This has been corrected in the final five-year review report.

Response to Comment S1-22

This has been corrected in the final five-year review report.

Response to Comment S1-23

The final five-year review report has been revised to mention the potential involvement of the Panhandle Health District in managing Basin recreational sites (see Section 5.5.1.11, Stage 2).

Response to Comment S1-24

This has been corrected in the final five-year review report.

S1-25 6-6 Table 6-4: The section on Grouse Gulch again notes remedial actions conducted in Government Gulch **NOT** Grouse Gulch. Grouse Gulch received different actions completed by Bunker Limited Partnership.

S1-26 Mention should be made of Shoshone Counties responsibility to clean out the sediment basins in Grouse Gulch to help control flooding associated with Grouse Creek in Smelterville.

S1-27 6-7 Table 6-4 Smelterville Flats – South of I-90: Again Remedial Actions note "the flats was regarded" not regraded.

If you have any questions or need additional information, please feel free to contact me at anytime. I can be reached at (208) 783-0707.

Sincerely,

Jerry Cobb
Scientist 3

cc Rob Hanson

Response to Comment S1-25

This has been corrected in the final five-year review report.

Response to Comment S1-26

This has been added to applicable Grouse Gulch sections in the final five-year review report.

Response to Comment S1-27

This has been corrected in the final five-year review report.

Ron Roizen

Letter - CO1. Signatory - Ron Roizen

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Ron Roizen
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06/16/2005 12:11 PM

To: Anne Dailey/R10/USEPA/US@EPA

cc: Shoshone County Commissioners <bocc@co.shoshone.id.us>, Dave Suhr <dmsuhr@imbris.com>, "W. C. Rust" <wcrust@cebridge.net>

Subject: Paragraph in SECOND FIVE-YEAR REVIEW

Anne,

CO1-1 On page 5-41 (bottom paragraph), the following narrative appears in the draft SECOND FIVE-YEAR REVIEW:

"For OU3, the USEPA and the IDEQ will assess the current risk to children and the dose response relationship between soil, dust, and paint exposures and blood lead levels using available sampling results for OU3. All the data that will be used in this report have not yet been finalized. Therefore, the report is planned for the fall of 2005."

Ascertaining the relationship between exposure potentials and human health risk (i.e., associated predicted blood levels) was of course the task of the HUMAN HEALTH RISK ASSESSMENT. If this relationship is to be reevaluated (as the above paragraph suggests) then how is that reevaluation going to be carried out? Will new blood lead data be involved – and, if so, how? Who is conducting the study-report that the paragraph alludes to? If all the assumption of the HHRA and ROD are holding up in OU3 as the soil remediation progresses (as the draft SECOND FIVE-YEAR REVIEW asserts), then why is this new study-report necessary?

Thanks.

Ron

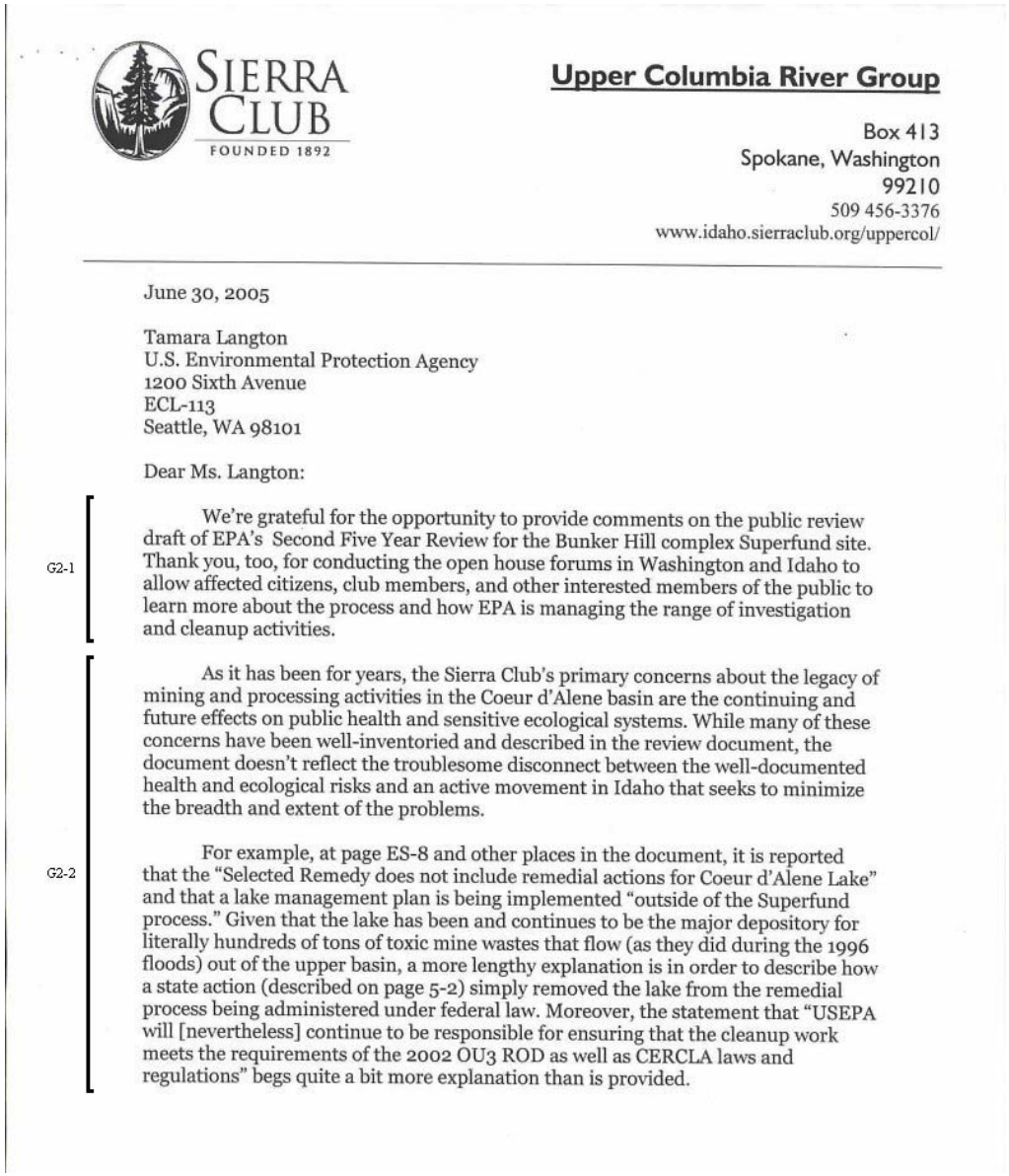
Cc Shoshone County Commissioners, Dave Suhr, Bill Rust

Response to Comment CO1-1

As the USEPA implements cleanup actions at the Bunker Hill Superfund Site, additional sampling data and information are collected and evaluated. It is appropriate for the USEPA to consider these data in evaluating remedial progress in reducing targeted exposures through selected remedial actions, health intervention, and other actions to reduce risks. The five-year review is one way for the USEPA to evaluate new data and information. The five-year review refers to an additional analysis that will be conducted to evaluate new information about the current risk to children in Operable Unit 3 (Basin) and the dose-response relationship between soil, house dust, paint exposures, and blood lead levels. This Basin evaluation was not included in the final report because data results and analyses were not completed in time for the public comment draft and final report. As noted in the final report, the evaluation will be prepared during the fall of 2005 and will use available data in Operable Unit 3.

Sierra Club

Letter - G2. Signatory - Sierra Club



SIERRA CLUB
FOUNDED 1892

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June 30, 2005

Tamara Langton
U.S. Environmental Protection Agency
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ECL-113
Seattle, WA 98101

Dear Ms. Langton:

G2-1 We're grateful for the opportunity to provide comments on the public review draft of EPA's Second Five Year Review for the Bunker Hill complex Superfund site. Thank you, too, for conducting the open house forums in Washington and Idaho to allow affected citizens, club members, and other interested members of the public to learn more about the process and how EPA is managing the range of investigation and cleanup activities.

As it has been for years, the Sierra Club's primary concerns about the legacy of mining and processing activities in the Coeur d'Alene basin are the continuing and future effects on public health and sensitive ecological systems. While many of these concerns have been well-inventoried and described in the review document, the document doesn't reflect the troublesome disconnect between the well-documented health and ecological risks and an active movement in Idaho that seeks to minimize the breadth and extent of the problems.

G2-2 For example, at page ES-8 and other places in the document, it is reported that the "Selected Remedy does not include remedial actions for Coeur d'Alene Lake" and that a lake management plan is being implemented "outside of the Superfund process." Given that the lake has been and continues to be the major depository for literally hundreds of tons of toxic mine wastes that flow (as they did during the 1996 floods) out of the upper basin, a more lengthy explanation is in order to describe how a state action (described on page 5-2) simply removed the lake from the remedial process being administered under federal law. Moreover, the statement that "USEPA will [nevertheless] continue to be responsible for ensuring that the cleanup work meets the requirements of the 2002 OU3 ROD as well as CERCLA laws and regulations" begs quite a bit more explanation than is provided.

Response to Comment G2-1

Thank you for your kind comments.

Response to Comment G2-2

The two quotes from page 5-2 are not connected as suggested by the comment. The first concerns Coeur d'Alene Lake; the second concerns the Basin Environmental Improvement Project Commission (Basin Commission) and implementation of the Operable Unit 3 (OU3) Record of Decision. As the commenter notes, the USEPA did not select a remedy for the lake. The OU3 ROD documents USEPA's conclusion, based upon available information at the time, that active remediation of lake bed sediments was not warranted.

Additional information related to this conclusion is available in the OU3 Feasibility Study. Nevertheless, the USEPA continues to evaluate conditions in the lake and will use this information to determine whether remedial actions are necessary, as described in Section 5.7 of the five-year review report.

Another weakness of the review is that it doesn't squarely acknowledge four related elements that are crucial to ensure remedial actions are accomplished in the most cost-effective manner for state and federal taxpayers.

G2-3

I) As the floods of 1996 so clearly demonstrated, the movement of mine wastes from the upper basin to Lake Coeur d'Alene and other impacted areas in the lower basin is greatly affected by deforestation caused by logging operations in the upper watershed. It's implausible that EPA is oblivious to this phenomenon and, at a minimum, it ought to be addressed in the overview narratives of the document that seek to explain the problem(s) that the remedial activities are addressing.

G2-4

II) Because problems in the Bunker Hill Superfund site flow inexorably downhill, it's important that remediation of downstream problem areas not be wiped out by failures to remediate and control discharges further upstream. The document should address the extent to which EPA and other entities involved in remediation activities have addressed the sequencing and effectiveness of remedial actions to account for how they may affect and/or be affected by the timing and thoroughness of other remedial actions.

G2-5

III) The relationship of the Bunker Hill Superfund cleanup activities to other major federal and state water and soil cleanup activities affecting the lakes and rivers in the Coeur d'Alene/Spokane River basin is not well addressed. For example, Post Falls Dam, the operation of which controls the water levels in Lake Coeur d'Alene and the Spokane River, is up for relicensing by the Federal Energy Regulatory Commission (FERC). The process includes certification under Section 401 of the Clean Water Act. The outcome of the relicensing and Section 401 certification could result in major changes to the flow of water (and pollutants) from the lake to the river. This could have an effect on remedial activities at a number of sites.

IV) The Idaho Dep't of Environmental Quality has defaulted on its obligation to prepare a TMDL for heavy metals in the Coeur d'Alene basin, and it is now up to U.S EPA to prepare that document. This is critical in part because of the assumptions in Washington state's Spokane River Dissolved Metals TMDL (Publ. No. 99-49-WQ, May 1999) concerning upstream remediation. The issue of the TMDL, and how it relates to the ROD and cleanup overall, is absent from the 5-year review. This omission points to the continuing disconnect between upstream loading and downstream contamination.

G2-6

We offer following specific comments on the draft.

1) Given that the primary goal of the OU1 selected remedy is to reduce blood lead levels in children, the report should provide sufficient information to explain the blood monitoring program and why EPA believes it is adequate to document the hoped for reductions. This information should be provided in the narrative 3.2.1.3

Response to Comment G2-3

The USEPA is aware that contaminated sediment is mobilized during high water events and is not oblivious to the impacts of logging and potential downstream consequences. Several ongoing projects in the Coeur d'Alene Basin funded with Clean Water Act grant monies will help inform the USEPA and others on the impacts of logging in the North Fork and other Coeur d'Alene River drainages.

Response to Comment G2-4

The interim OU3 ROD describes cleanup work that will occur over approximately 30 years to address the mining contamination in the Coeur d'Alene Basin. As both the OU3 ROD and the five-year review report note, the USEPA's first priority is to remediate residential and recreational areas that pose direct human health risks. Through the Basin Commission and the associated Technical Leadership Group (TLG), the USEPA has been working with the other involved entities to plan future remedial actions in the Coeur d'Alene Basin. Both the annual work plans and five-year work plans approved by the Basin Commission identify the sequencing of future remedial activities. Among many other criteria, the impact of remedial actions on both past and future actions is considered by the USEPA and the Basin Commission. This is noted in the final five-year review report.

Response to Comment G2-5

In September 1996, the United States District Court for the Western District of Washington ordered the USEPA and the State of Idaho to develop a schedule for completion of total maximum daily loads (TMDLs) for all water-quality impaired streams identified by the State, including the

Coeur d'Alene River Basin. In August 2000, a TMDL for dissolved cadmium, lead, and zinc in surface waters of the Basin was jointly issued by the USEPA and the State of Idaho. The TMDL established waste load allocations for discrete point sources and load allocations for non-discrete sources. On September 4, 2001, a district court judge for the State of Idaho invalidated the TMDL on the procedural grounds that the State of Idaho had not engaged in formal rulemaking when adopting the Basin TMDL. The invalidation of the TMDL was appealed to the Idaho Supreme Court and the decision was upheld. Any new Basin TMDL developed by the State of Idaho would be required to go through a formal rulemaking under State law before being sent to the USEPA for approval.

Despite this fact, it has long been recognized that non-discrete sources are the primary sources of metals in surface water in the Basin. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) remedial process was identified as the most effective tool to address these non-discrete sources. The USEPA will be reducing metals loading to the river and downstream areas through implementation of the OU3 ROD. The USEPA will be implementing the Superfund cleanup whether a TMDL is in place or not. Superfund views the now-vacated allocations and target loadings in the TMDL as still applicable. The USEPA currently operates the Central Treatment Plant (CTP) in Operable Unit 2 and is planning upgrades to meet the TMDL allocations. Eventual treatment of Canyon Creek water, as outlined in the OU3 ROD, will also have a goal of meeting target loadings identified for this location.

In regard to the comment on the Federal Energy Regulatory Commission (FERC) process, the lake impoundment behind Post Falls Dam does keep the lake and Coeur d'Alene River level artificially high for a period of time and this can impact erosion of contaminated river banks. As part of the FERC process, Avista did consider this aspect along with many other factors as they discussed re-license alternatives and impacts. An evaluation of the FERC process is not part of the five-year review. However, the USEPA will consider the lake level requirements of the re-issued Avista license during implementation of the remedy in the lower portion of the Basin.

Response to Comment G2-6

The participation in annual blood lead surveys from the Operable Unit 1 (OU1) Lead Health Intervention Program (LHIP) has been substantially reduced since 2002 due to the program modifications described in Section 3.2.1.3 of the five-year review report. However, based on annual survey results for the preceding 15 years, which consistently included more than 50 percent participation of children residing in OU1, the relationship between lead in blood as a function of lead in soil and dust has been consistent with the assumptions used to develop the OU1 cleanup action levels for soil and dust. The constancy of this dose-response relationship is depicted in Figure 3-8, OU1 Lead Intake Rates and Geometric Mean Blood Lead Levels (1988-2002), and text in Section 3.2.1.3 refers to the dose-response relationships underlying the cleanup strategy. Based on this dose-response relationship, the USEPA has confidence in the protectiveness of the remedy, as long as lead in exposure media is maintained at levels in compliance with cleanup action levels. Reliance on the dose-response relationships used in the IEUBK model (the model used to develop lead soil cleanup levels) is noted in the National Academies' pre-publication report on Operable Unit 3 (see page 202 of National Research Council pre-publication report, 2005).

("Blood Lead Levels") and/or in the displays on pages 3-18 and 3-19. EPA should also discuss problems with statistical validity of these data resulting from the absence of epidemiologically sound, longitudinal studies; decisions by Idaho to use voluntary blood lead monitoring; turnover of population; and other factors. G2-6

2) On page 2-8 it is reported that "[c]ertain potential exposures outside of the communities and residential areas of the Upper Basin and Lower Basin were not addressed by the 2002 UO3 ROD." A brief explanation as to why they were not addressed would be helpful. G2-7

3) Given the long-term costs involved to adequately address the acid mine drainage problem (and the severe potential consequences of not funding the essential treatment activities) the discussion in Section 2.4 "State Superfund Contracts and Cost Share Agreements" should be more specific about the timeline and procedures through which EPA and Idaho will resolve the as yet unanswered question of how the long term AMD problem (and other long-term problems requiring a substantial funding commitment) will be addressed. G2-8

4) The text in section 5.2 "ARARs Review" is contradictory and confusing. It begins by heralding the 2002 OU3 ROD as including "a complete remedy for protection of human health in the upper and lower basins, and the portion of the Spokane River upstream of Upriver dam. But, just two paragraphs later, reports that the remedial actions selected in the ROD "are not intended to fully address contamination within the basin and won't achieve, among other things, compliance against maximum contaminant levels for drinking water. This would seem, by definition, to be less than a "complete" remedy and EPA should explain why it cannot "fully address" the contamination. G2-9

5) On page 5-16 the text reports on a property sampling program and notes that "Disclosure is currently being provided as a service in the Basin." By whom? G2-10

Response to Comment G2-7

The USEPA considers a number of factors when selecting a Superfund remedy and it documents how those factors are evaluated in the Record of Decision. The purpose of a five-year review is to evaluate the implementation and performance of the selected remedy. The OU3 ROD is an interim ROD that states there are other potential exposures that are not addressed as part of the selected remedy. The reasons why these other exposures are not addressed are beyond the scope of the five-year review.

Response to Comment G2-8

The USEPA and the State of Idaho continue to work to resolve the State Superfund Contract (SSC) issue. This is a high priority for both agencies and may ultimately require a creative solution. Resolution of this issue also requires the assistance and support of other entities outside of both agencies, including the Idaho Legislature. This makes it difficult to establish within the five-year review report any kind of meaningful timeline or procedures as requested in the comment.

Response to Comment G2-9

The OU3 ROD (see page 12-11) addresses human health protection related to contaminated drinking water by provision of alternate drinking water supply, not by remediation of contaminated groundwater. Residences with affected private wells within water districts will be connected to the existing public water supply system. For residences outside water districts, the alternate water supply will most likely consist of point-of-use treatment or new groundwater wells installed into a suitable aquifer.

Actions for protection of groundwater for drinking water supplies are not addressed as part of the Selected Remedy.

Response to Comment G2-10

The property disclosure program referenced in Section 5.3.1 is currently provided by the Panhandle Health District. The final five-year review report has been revised to clarify this issue.

Dick Wandrocke

Letter - CR1. Signatory - Dick Wandrocke

EPA's 5-Year Review of the
Bunker Hill Mining and Metallurgical Complex Superfund Site

Comment Card

Feel free to use this card to share your comments with EPA. Simply drop this card in the box near the door before you leave. Of course, you also can send comments by mail or by e-mail. Mail comments by June 30 to: **Tamara Langton**, EPA, 1200 6th Avenue, Seattle, WA 98101 or e-mail langton.tamara@epa.gov. The comment period runs from June 1to June 30, 2005.

THANKS FOR THE UPDATE, AND GRAPHIC INFORMATION, SUPPLIED, AT THE 5 YEAR REVIEW, HELD AT NO. IDAHO COLLEGE, ON 6/16/2005.
IT APPEARS, THAT MUCH PROGRESS HAS BEEN ACCOMPLISED.

KEEP UP THE GOOD WORK! Thanks!

DICK WANDROCKE
4108 Arrowhead Rd
Coeur d'Alene, Idaho 83815-8837

Dick Wandrocke

(Please add additional comments on back)

Response to Comment CR1-1

Thank you for your kind comment.

Paul Woods, USGS Water Resources

Letter - F5. Signatory – Paul Woods, USGS Water Resources

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U.S. Geological Survey
Water Resources
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Boise, Idaho 83702-4520

Fax Cover Sheet

Date: 6/17/05 Number of Pages (including this cover): 5

To: Tamara Langton Organization: US EPA

Phone: 206 553 2209 Fax: 206 553 0124

From: Paul Woods Organization: USGS

Phone: 208 387 1353 E-mail: 208 387 1372

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If you have problems with receiving a fax or sending a fax please call (208) 387-1397.

Message:
Comments on 5-year review.

Table 5-52. Flow and Dissolved Concentrations of Cadmium, Lead, and Zinc Sampled During October of Water Year 2004 at BEMP's Seven Sentinel and Eight Benchmark Stations

USEPA Station ID and Name	Instantaneous flow (cfs)	Cadmium (µg/L)	Lead (µg/L)	Zinc (µg/L)
SF-208, SFCDR, Deadman	10.4	0.033	0.94	18.6
CC-287, CC, Mouth	11.6	14.9	15	2,170
NM-295, EFNM, abv. Success	1.44	11.1	10	2,020
NM-298, EFNM, Mouth	2.02	29.8	52.6	5,210
NM-305, NM, Mouth	4.78	20.8	20	3,280
SF-288, SFCDR, Eliz. Park	61.2	7.1	3.7	936
SF-270, SFCDR, Smelterville	63.4	10.6	9.8	1,225
PC-339, PC, Amy Gulch	11.6	0.37	0.43	111
SF-271, SFCDR, Pinehurst	88	9.2	5.2	1,410
NF-50, NF, Enaville	182	<0.04	<0.08	2.9
LC-50, CDR, Cataldo	376	1.92	1.44	347
LC-60, CDR, Harrison	436	1.3	2.5	267
SJ-80, SJR, Chatcolet	418	<0.04	0.06	1
SR-5, SR, Lake outlet	1,100	0.12	0.09	38.3
SR-55, SR, ID/WA Border	1,100	0.057	0.182	24

Biological resource monitoring activities conducted during 2004 included a songbird population survey, aquatic invertebrate diversity/abundance at three locations, and a bull trout habitat/temperature assessment. Only the songbird population survey results are available at this time. As identified in the Basin Environmental Monitoring Plan (USEPA March 2004), the USFWS conducted songbird diversity and abundance surveys in Pine Creek and the Lower Basin in 2004. Methods included those identified in Upper Columbia Fish and Wildlife Office (UCFWO) Standard Operating Procedure (SOP) # 1020.1012 (i.e., Monitoring Avian Productivity and Survivorship). Banding stations were established in riparian areas of Pine Creek and Springston (in the Lower Basin). All data were submitted to the Institute for Bird Populations for validation and comparisons to national data collected.

As this protocol is intended to provide long-term data on population and demographic parameters of songbirds inhabiting OU3, surveys will be conducted annually for the next 4 years per the BEMP schedule. The 2004 results are limited (first of 5 years) and will be integrated into the final report.

F5-1

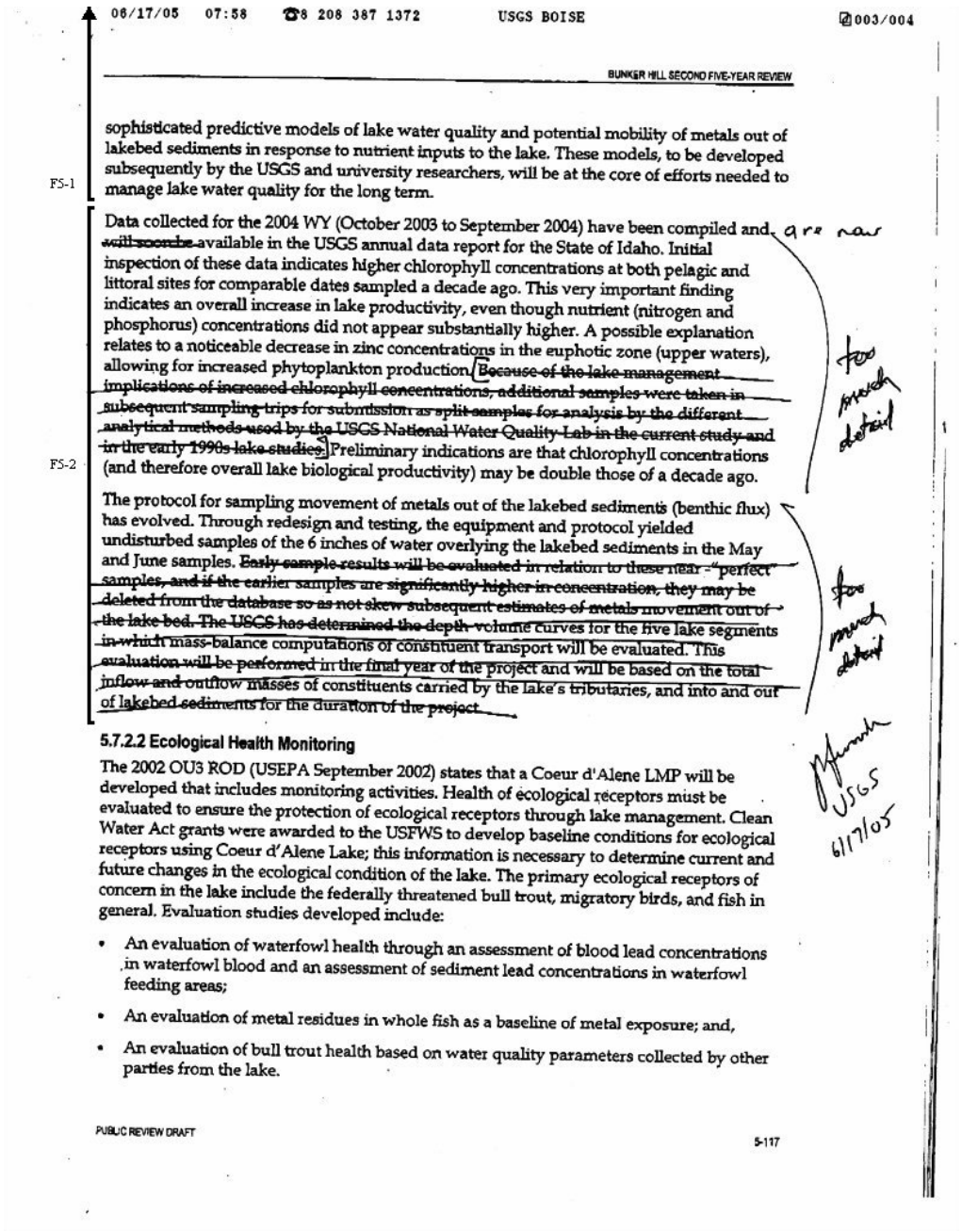
The surface-water monitoring portion of the BEMP was conducted by the USGS during WY2004, which encompasses October 1, 2003, through September 30, 2004. The seven sentinel stations, listed in Table 5-52, were sampled on a hydrograph-oriented basis in order to obtain water-quality data representative of a wide range of flow conditions. Flows were measured and water quality samples were collected at the sentinel stations under the

5.51, not 5-52

6/17/05

Response to Comment F5-1

The correct table number in the final five-year review report is Table 5-59 (see Section 5.6.1.5 – BEMP Monitoring Activities).



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BUNKER HILL SECOND FIVE-YEAR REVIEW

sophisticated predictive models of lake water quality and potential mobility of metals out of lakebed sediments in response to nutrient inputs to the lake. These models, to be developed subsequently by the USGS and university researchers, will be at the core of efforts needed to manage lake water quality for the long term.

F5-1

Data collected for the 2004 WY (October 2003 to September 2004) have been compiled and ~~will soonbe~~ available in the USGS annual data report for the State of Idaho. Initial inspection of these data indicates higher chlorophyll concentrations at both pelagic and littoral sites for comparable dates sampled a decade ago. This very important finding indicates an overall increase in lake productivity, even though nutrient (nitrogen and phosphorus) concentrations did not appear substantially higher. A possible explanation relates to a noticeable decrease in zinc concentrations in the euphotic zone (upper waters), allowing for increased phytoplankton production. ~~Because of the lake management implications of increased chlorophyll concentrations, additional samples were taken in subsequent sampling trips for submission as split samples for analysis by the different analytical methods used by the USGS National Water Quality Lab in the current study and in the early 1990s lake studies.~~ Preliminary indications are that chlorophyll concentrations (and therefore overall lake biological productivity) may be double those of a decade ago.

F5-2

The protocol for sampling movement of metals out of the lakebed sediments (benthic flux) has evolved. Through redesign and testing, the equipment and protocol yielded undisturbed samples of the 6 inches of water overlying the lakebed sediments in the May and June samples. ~~Early sample results will be evaluated in relation to these near-"perfect" samples, and if the earlier samples are significantly higher in concentration, they may be deleted from the database so as not skew subsequent estimates of metals movement out of the lake bed. The USGS has determined the depth-volume curves for the five lake segments in which mass-balance computations of constituent transport will be evaluated. This evaluation will be performed in the final year of the project and will be based on the total inflow and outflow masses of constituents carried by the lake's tributaries, and into and out of lakebed sediments for the duration of the project.~~

5.7.2.2 Ecological Health Monitoring

The 2002 OU3 ROD (USEPA September 2002) states that a Coeur d'Alene LMP will be developed that includes monitoring activities. Health of ecological receptors must be evaluated to ensure the protection of ecological receptors through lake management. Clean Water Act grants were awarded to the USFWS to develop baseline conditions for ecological receptors using Coeur d'Alene Lake; this information is necessary to determine current and future changes in the ecological condition of the lake. The primary ecological receptors of concern in the lake include the federally threatened bull trout, migratory birds, and fish in general. Evaluation studies developed include:

- An evaluation of waterfowl health through an assessment of blood lead concentrations in waterfowl blood and an assessment of sediment lead concentrations in waterfowl feeding areas;
- An evaluation of metal residues in whole fish as a baseline of metal exposure; and,
- An evaluation of bull trout health based on water quality parameters collected by other parties from the lake.

PUBLIC REVIEW DRAFT 5-117

Letter - F5

Page 3

Response to Comment F5-2

The identified text changes have been made to the final five-year review report.

The USFWS began baseline ecological receptor health evaluation fieldwork in 2004 by collecting sediment, waterfowl blood, and waterfowl fecal samples in lake and reference locations. Fifty-six palustrine samples were collected from 11 Coeur d'Alene Lake and 2 reference locations. One hundred and two lacustrine samples were collected from 22 Coeur d'Alene Lake and 2 reference locations. Sixty-one blood samples were collected from mallards and wood ducks from 8 Coeur d'Alene Lake locations and 1 reference location. Nineteen Canada goose fecal samples from 5 locations and 3 mallard samples from 1 location were collected for sediment concentration analysis. Preliminary data suggest that sediment lead concentrations in waterfowl use areas are above the OU3 ROD sediment cleanup. Results are currently being analyzed. Future ecological health evaluation work includes collection of fish in summer 2005 for metal exposure analysis and the completion of the bull trout health evaluation.

5.7.3 Technical Assessment of OU3 Coeur d'Alene Lake

Per USEPA guidance (USEPA June 2001) and as identified in section 1.4, technical assessment of the OU3 Coeur d'Alene Lake was evaluated by responding to the following three questions related to protectiveness of actions to be implemented.

Question A: Is the remedy functioning as intended by the decision documents?

A decision on a remedy was deferred by the USEPA pending the revision and adoption of an LMP which would serve as the management tool for protecting the lake from increased nutrient enrichment and the possible metals mobilization from contaminated bottom sediments. The 1996 LMP is undergoing an update by the Coeur d'Alene Tribe and the State of Idaho, and a revised draft was completed in 2004, but has not been finalized. As a result, the USEPA has decided to seek mediation in support of this issue.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

Since no remedy was selected, this question does not apply.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

Recent data collected by the USGS indicate lake productivity has tripled doubled over the last 10 years. A lake model is being developed, which can predict how changes in metals and nutrient loadings to the lake can impact the flux of metals from lake bed sediments. In addition, development along the lake shore continues to increase, therefore increasing the possibility for accelerated nutrient inputs.

USGS 6/17/05

F5-3

Remedy Issues

Table 5-57. Summary of Coeur d'Alene Lake Issues

Issues	Affects Protectiveness (Y/N)	
	Current (now to 1 year)	Future (>1 year)
Control of lake eutrophication and potential release of metals from contaminated sediments	N	N

Letter - F5

Page 4

Response to Comment F5-3

This correction has been made in the final five-year review report.

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