



**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

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June 23, 2025

Sent via email

Molly Hanson
Holden Remedial Project Manager
US Forest Service, Pacific Northwest Region (R6)
215 Melody Lane
Wenatchee, WA 98801

RE: Ecology Comments on Government Team Review March 27, 2025. Second Five-Year Review Report for Holden Mine Site:

- **Site Name:** Holden Mine
- **Site Address:** Chelan
- **Ecology Facility Site ID No.:** 338
- **Ecology Cleanup Site ID No.:** 4414
- **UAO, EPA Docket No:** CERCLA-10-2012-0127

Dear Molly Hanson:

Thank you for providing the State of Washington (State) (represented by the Department of Ecology (Ecology)) with an opportunity to review and comment on the above-referenced document in accordance with part XIII of the Unilateral Administrative Order. Below are Ecology's comments on the Draft Second Five-Year Review Report for the Holden Mine Site (FYR-2025) dated and received on March 27, 2025.

Our opinions expressed in this letter are consistent with our authority under the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.¹ In addition to MTCA, our opinions are expressed consistently with our authority under Chapter 90.48 RCW,² the Water Pollution Control and Chapter 90.70 RCW,³ and the Puget Sound Water Quality Authority Act.

¹ <https://app.leg.wa.gov/rcw/default.aspx?cite=70A.305>

² <http://app.leg.wa.gov/RCW/default.aspx?cite=90.48>

³ <http://app.leg.wa.gov/RCW/default.aspx?cite=90.70>

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Ecology is available to review our comments with the US Forest Service as needed. Please distribute our comments to the Respondent as well as to the other members of the Government Team. Please advise Ecology on the USFS schedule for finalizing the 2025 PSVP Monitoring Activities Memorandum.

Ecology Comments/Discussion/Resolution: Below are Ecology's comments, and as appropriate, associated discussion and expectations about the resolution:

Comment 1: Page 1. §Table of Contents. Possible edit.

Discussion/Resolution: The line for the Phase 2 Remedial Action Evaluation has "(ADD)", which may need to be edited.

Comment 2: Page 2. §List of Abbreviations & Acronyms. This list may be incomplete.

Discussion: There are acronyms in the draft text that are not included in the List of Abbreviations & Acronyms, such as "OU" on page 3; "AOIs", "DSHH", "HHWR" on page 4; "WOTUS" on page 5; "ARD" on the 2nd page 2; "FS" & "COCs" on the second page 3; and so on.

Resolution: Revisit the list of abbreviations and acronyms to ensure it is complete.

§I. INTRODUCTION

Comment 3: Page 3. §1. Introduction. 3rd ¶. Provide a little more detail regarding the review history.

Discussion: A little more detail would help out in this paragraph by providing the year of the first FYR and a brief explanation on why the review did not happen. This is important since the maximum number of years between reviews is 5 years per the guidance.

Resolution: Identify the year for the first FYR and add an explanation on why the 2nd FYR did not happen in 2023.

Comment 4: Page 4, partial paragraph at the top of the page (§1. Introduction). The tailings piles are also now covered with sludge filter cake.

Discussion: The description does not accurately reflect the state of the tailings piles, since it creates a picture of a natural surface, yet the SFCMF is located on the tailings pile. Please confirm if the biocells treating petroleum soils are still present.

Resolution: Add to the description for a more accurate picture of the current state of the tailings piles.

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Comment 5: Page 4, first full paragraph, last sentence (§1. Introduction). Please consider adding lead to the list.

Discussion: Table 1 in the ROD identifies six COCs for groundwater versus the 5 metals listed in the text, with lead not being included.

Resolution: Please add lead to the list.

Comment 6: Page 4, 3rd ¶ (§1. Introduction). Consider adding a bit more detail regarding the AOIs and annotating the Figure.

Discussion: Starting on pages 2-18 of the ROD, at least 13 AOIs are listed. The paragraph gives the impression that there are only 5 AOIs. Additionally, since the AOIs with in situ soil treatment involved are specifically mentioned, consider annotating these areas in Figure 2 to facilitate the connection of the text to the figure.

Resolution: Please add lead to the list.

Comment 7: Page 4, 5th paragraph, 1st bullet. ¶ (§1. Introduction). Consider qualifying that the containment is with a barrier wall.

Discussion: The ROD in Section 12.2.2 Groundwater identifies that the containment of groundwater is accomplished by a fully penetrating groundwater containment barrier wall.

Resolution: Qualify the containment in the text.

Comment 8: Figure 1. The “Holden Mine Site” part of this figure should include all of Railroad Creek and Lucerne Bar.

Resolution: Clarify this on the map.

Comment 9: Figure 3: Current Site Conditions. Add additional site features that represent current site conditions related to the remedial action.

Discussion/Resolution: There are additional site features that are referenced in the review report and not included in the figure. Please add the following site features: the mine water treatment plant (MWTP) outfall and the mixing zone for the MWTP discharge.

Comment 10: Figure 3: Current Site Conditions. Clarify the location and extent of the riparian wetlands east of the tailings pile 3.

Discussion: Figure 3 in the ROD, Holden Mine Features, indicates three areas of the Riparian Wetlands East of Tailings Pile 3, while Figure 3 of the FYR-2025 indicates only one location upgradient of the East Bypass Bridge. This is inconsistent with the ROD.

Resolution: Ensure consistency with the ROD regarding the site features.

GLOBAL COMMENTS

Comment 11: Global comment. Inconsistency when referring to protection of different media.

Discussion: There are a number of areas where sediment and/or surface water are omitted when discussing meeting groundwater or soil cleanup levels to protect other media.

Resolution: Make global changes to ensure that both sediment and surface water are included as media to protect.

§II. RESPONSE ACTION SUMMARY

Comment 12: Page 2, Basis for Taking Action section. Sediment contaminants and impacts are not listed.

Discussion: This section includes bulleted details on impacted soil, groundwater, and surface water but does not include information on sediment impacts.

Resolution: Include a separate bullet for sediment with the metals found in sediment in Railroad Creek and Lake Chelan: aluminum, beryllium, cadmium, chromium, copper, iron, silver, and zinc.

Comment 13: Page 4 Contaminants of concern, 2nd paragraph, last sentence. This states that sediment contaminants of concern were identified by comparing to risk-based concentrations, which is not complete.

Discussion: Chemical criteria do not apply to mining-impacted sites; the biological criteria must be acknowledged.

Resolution: Revise the sentence (*recommended changes italicized*) as follows: "Sediment COCs were identified by comparing detected constituent concentrations at each sediment sampling location to RBCs *and the Sediment Management Standards biological criteria.*"

Comment 14: II. RESPONSE ACTION SUMMARY, Page 4 Response Actions, Early Actions, 1st bullet. This sentence is confusing

Discussion: As written, this sentence implies that the early action was intended to increase runoff from the tailings piles to Railroad Creek.

Resolution: Suggest clarifying where the runoff was intended to be diverted.

Comment 15: II. RESPONSE ACTION SUMMARY, Response Actions, Page 6, Post-ROD Response Actions, 2nd paragraph. This sentence is confusing

Discussion: As written, how can the 2012 actions be done in accordance with a document that was drafted in 2014?

Resolution: Suggest clarifying the dates of documents.

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Comment 16: II. RESPONSE ACTION SUMMARY, Response Actions, Page 7, Post-ROD Response Actions, 5th from last bullet. The bullet “cleanup of debris from around the Site” can benefit from some clarification.

Discussion: It is unclear what type of debris was cleaned up and how it was disposed. Is it intended to mean state solid waste regulations?

Resolution: Suggest clarifying.

Comment 17: II. RESPONSE ACTION SUMMARY, Response Actions, Page 7, Post-ROD Response Actions, last bullet. This “well abandonment” bullet is confusing

Discussion: It is unclear what “well abandonment” means. Is it intended to mean well decommissioning per state regulations?

Resolution: Suggest clarifying.

Comment 18: II. RESPONSE ACTION SUMMARY, Response Actions, Page 7, Post-ROD Response Actions, 3rd bullet. This sentence is confusing

Discussion: This sentence includes “Relocation and improvements of Railroad Creek and Copper Creek.” However, it is unclear what improvements were made to Railroad Creek.

Resolution: Clarify the improvements made to Railroad Creek beyond just relocation.

Comment 19: II. RESPONSE ACTION SUMMARY, Response Actions, Page 7, Post-ROD Response Actions, last bullet. The bullet “Control and diversion of surface water” can benefit from some clarification.

Discussion: It is unclear if this is construction stormwater or not. If it is construction stormwater, then clarify if it is not; then does construction stormwater need to be added? Was stormwater managed under a construction stormwater general permit or like permit?

Resolution: Suggest clarifying.

Comment 20: II. RESPONSE ACTION SUMMARY, Response Actions, Page 8, Post-ROD Response Actions, 4th bullet. The bullet ends with “such as...” and appears to be incomplete.

Discussion / Resolution: Complete the bullet.

Comment 21: II. RESPONSE ACTION SUMMARY, Remedial Action Objectives identified in the ROD, Page 9. Opening sentence and Table 2: RAOs and associated Remedy Components. The reviewer would benefit from identifying the section in the ROD and numbering the RAOs like the ROD does.

Discussion / Resolution: Considering identifying that the RAOs are identified in ROD section 8.1 and adding numbers per ROD section 8.1.

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Comment 22: II. RESPONSE ACTION SUMMARY, Major components of the selected remedy identified in the ROD, Soil, Page 12 through 15. General comment about capping and adaptive management.

Discussion: Capping is mentioned in multiple locations, but there is no detail on what the cap is or if the cap is the same for all areas mentioned. Additionally, there is no text about adaptive management as new technology is available. With the Forest Service's resources on BioChar, it seems that expanding the capping to include BioChar should be a natural consideration and adaptive management.

Resolution: Clarify capping and consider commenting on adaptive management in the Recommendations for Technical Improvement section.

Comment 23: II. RESPONSE ACTION SUMMARY, Major components of the selected remedy identified in the ROD, Soil, Tailings Piles 1, 2, and 3, 4th bullet, Page 13. Clarify the legal reference and ARAR for the "states performance requirements for closure on limited purpose landfills".

Discussion / Resolution: Add legal reference and identify the ARAR.

Comment 24: II. RESPONSE ACTION SUMMARY, Major components of the selected remedy identified in the ROD, Groundwater, Page 16, 4th paragraph. Regarding the two WMAs, does the change from a barrier wall surrounding TP 1 to one that encompasses both TP1 and part to TP2 result in two WMAs?

Discussion: Figure 14 in the ROD shows two distinct WMAs. The history and rationale behind why there are two WMAs likely tie into the two project phases and the distinct barrier wall around TP1, as shown in Figure 18 of the ROD. In consideration that the barrier wall was not built as shown in the ROD and actually extends to TP2, are there still two WMAs?.

Resolution: Consider and clarify whether the changes have impacted the number of WMAs. If there is a change in the number of WMAs, what does that mean for the remedy?

Comment 25: II. RESPONSE ACTION SUMMARY, Status of Implementation, Groundwater, Page 24. It should be recognized that Phase 1 has changed.

Discussion: Figure 18 in the ROD depicts two distinct barrier walls around TP1. As acknowledged in that sentence of the paragraph that the scope of Phase 2 has changed; it should be acknowledged that Phase 1 changed to include part of Phase 2.

Resolution: Consider clarifying that there was a change to Phase 1.

Comment 26: II. RESPONSE ACTION SUMMARY, Site Optimization Recommendations, Page 27. Were the recommendations implemented?

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Discussion: Consider adding text or referencing the section in this review that discusses the implementation of the recommendations. Also, since “team” is also associated with the Government Team besides the Optimization Team, consider creating an acronym for the Optimization Team.

Resolution: Clarify by adding a reference regarding the implementation of the recommendations and the distinguishing team.

Comment 27: II. RESPONSE ACTION SUMMARY, Page 28. Recommendations for Site Completion, 3rd bullet. What is the “area downstream of the MWTP?”

Discussion: Considering that MWTP is about 8 or 9 miles from Lucerne Bar, clarification on the size of the area would be helpful to the reader.

Resolution: Clarify “area downstream of the MWTP.”

Comment 28: II. RESPONSE ACTION SUMMARY, O&M Non-Compliance Events, Page 37. Table 4 MWTP O&M reporting requirements, third row under “Frequency”, note that Chapter 173-303-145 is a WAC, not an RCW.

Discussion / Resolution: Clarify the legal reference.

Comment 29: II. RESPONSE ACTION SUMMARY, O&M Non-Compliance Events, Page 37. Paragraph after Table 4 MWTP O&M reporting requirements. What is a “non-reportable spill”?

Discussion: This language has the context that there is a category for spills that don’t require reporting versus a situation where a spill was not reported. See Ecology’s website.⁴

Resolution: Clarify the context.

Comment 30: II. RESPONSE ACTION SUMMARY, Table 6 O&M requirements for other remedial components, Groundwater collection and delivery system, West Seeps Collection System Pipeline on page 43. Are the accumulated sediments tested for metals? If they are, then ignore this comment.

Discussion: It might be worth considering testing the accumulated sediments for metals as a performance requirement, and allowing for evaluating trends in site conditions.

Resolution: Consider this comment when preparing the next PSPV.

Comment 31: II. RESPONSE ACTION SUMMARY, Table 6 O&M requirements for other remedial components, Groundwater collection and delivery system, West Seeps Collection System Pipeline on page 43. Are the accumulated sediments tested for metals? If they are, then ignore this comment.

⁴ <https://ecology.wa.gov/footer-pages/report-an-environmental-issue/report-a-spill>

Discussion: It might be worth considering testing the accumulated sediments for metals as a performance requirement, and allowing for evaluating trends in site conditions.

Resolution: Consider this comment when preparing the next PSPV.

Comment 32: II. RESPONSE ACTION SUMMARY, Table 6 O&M requirements for other remedial components, Environmental O&M, and O&M Teams mentioned on page 46. Are these teams identified anywhere?

Discussion / Resolution: Consider identifying these teams.

Comment 33: II. RESPONSE ACTION SUMMARY, Table 6 O&M requirements for other remedial components, regarding “adaptive measures” on Page 48 and Page 52: Are the adaptive measures only implemented from the recommendations by the Environmental Contractor? Is there a process if the Government Team recommends adaptive measures? Is the Environmental Contractor the same as the Environmental O&M Team?

Discussion / Resolution: Clarify as needed.

§IV. FIVE-YEAR REVIEW PROCESS

Comment 34: IV. FIVE-YEAR REVIEW PROCESS, Community Notification, Involvement & Site Interviews, on Page 60: Regarding the review being available in 2023 for review, it seems like an explanation regarding the delay to 2025 would add some needed context.

Discussion / Resolution: Clarify as needed.

Comment 35: IV. FIVE-YEAR REVIEW PROCESS, Data Review, on Page 60. Consider identifying who the “We” is that reviewed the data.

Discussion / Resolution: Clarify as needed.

Comment 36: IV. FIVE-YEAR REVIEW PROCESS, Site Inspection, on Page 65. Was the August 23, 2022, participation by Ecology and others part of a site visit versus a site inspection?

Discussion: The documents from August 2022 show that Ecology attended a “Site Visit”, not a “Site Inspection”. The site visit included site tours, not inspections.

Resolution: Please clarify that Ecology was not part of a Site Inspection.

§V. TECHNICAL ASSESSMENT

Comment 37: V. TECHNICAL ASSESSMENT, Remedial Action Performance, first bullet at the top of Page 66. Was the August 23, 2022, participation by Ecology and others part of a site visit versus a site inspection?

Discussion: What is the plan to verify if the theory of the prism of contaminated former stream sediment is the actual site conditions versus some other reason?

Would a dye/tracer study be beneficial to verify this theory? Could the high concentrations from the seeps be from a weak spot in the barrier wall?

Resolution: There needs to be some consideration on how to validate this issue.

Comment 38: Page 68, V. TECHNICAL ASSESSMENT, Question A Summary, *Remedial Action Performance* section, Operation and function of remedial action per design bullet, second sub-bullet, and Page 69, Effectiveness of containment bullet, third sub-bullet, last sentence. Lack of clarity about the source or cause of release of contaminated seep water, and lack of detail on the follow-up on these statements.

Discussion: A suggestion has been included that an isolated contaminated sediment prism within the former stream channel may be leaching contaminants through the seeps into Railroad Creek, and that release of contaminants is not due to seepage through the barrier wall. We are unclear as to how this is possible since relocation of the stream channel should have included removal of contaminated sediment between the barrier wall and Railroad Creek. In addition, there is no discussion on follow-up to verify or remediate this possible source of release of contaminants to Railroad Creek.

Resolution: Add details in the Other Findings section that detail how this potential source of contaminated sediment will be investigated and remediated in Phase II.

Comment 39: IV. FIVE-YEAR REVIEW PROCESS, Data Review section, Page 66 Sediment bullet and V. TECHNICAL ASSESSMENT, Question A Summary, *Remedial Action Performance* section, Page 68 Achievement of cleanup levels bullet, second sub-bullet. Inappropriate inclusion of the Sediment Management Standards (SMS) chemical criteria.

Discussion: The document states in several places that the SMS chemical criteria have been met and concentrations are less than half the SCO criteria. **However, the SMS chemical criteria do not apply to mining-impacted sites [WAC 173-204-563(2)(o)(iii)].⁵ Ecology has stated multiple times that these types of statements are inappropriate and not legally defensible.**

Resolution: Remove these statements and only include the results and conclusions from the bioassay and biomonitoring data when referencing meeting sediment cleanup levels.

Comment 40: V. TECHNICAL ASSESSMENT, Question A Summary, *Remedial Action Performance* section, Page 68 Achievement of cleanup levels bullet, third sub-bullet. The last sentence needs to be qualified.

Discussion: In our review of the draft January 2025 Sediment ACAR Ecology recommended additional sediment, surface water, and porewater sampling at all current and future seeps, near the MWTP outfall, and within Lucerne Bar, which has not yet been done.

⁵ <https://app.leg.wa.gov/wac/default.aspx?cite=173-204-563>

Considering we do not have conclusive data on surface water and sediment quality in these areas, the statement should be qualified.

Resolution: Qualify the last sentence as (*recommended changes italicized*) “As such, conditions in Railroad Creek appear to be protective of the benthic macroinvertebrate community *where sampled* in 2024.”

Comment 41: Page 69, Other Findings. Lack of recognition of the necessity of additional monitoring in Railroad Creek.

Discussion: Ecology identified data gaps and recommended additional monitoring in Railroad Creek and Lake Chelan, which was detailed in our review of the January 2025 draft Sediment ACAR. The 5-year review is an appropriate tool to document this information.

Resolution: Add information consistent with Ecology’s recommendations that additional sediment monitoring is necessary to verify long-term effectiveness of the Phase I remedy, post-construction, and long-term effectiveness of the future Phase II remedy, and protectiveness of the MWTP outfall discharge into Railroad Creek is necessary.

Comment 42: V. TECHNICAL ASSESSMENT, Question A Summary, *Remedial Action Performance* section, Page 69, Achievement of cleanup levels bullet, last paragraph. The last sentence needs to be clarified.

Discussion: As stated above, Ecology has recommended additional sediment, surface water, and porewater sampling at all current and future seeps. Considering we do not have conclusive data on surface water and sediment quality from all seeps, the statement should be revised (*recommended changes italicized*).

Resolution: In accordance with the PSVP, these areas will be subject to additional monitoring (*including sediment and porewater sampled directly at the seeps*) and, if necessary, investigation and development of corrective actions should exceedances persist (Floyd I Snider 2020a).

Comment 43: V. TECHNICAL ASSESSMENT, Changes in Standards and TBCs. Page 70. State Solid Waste Regulations were recodified in 2020.

Discussion: Table 17 from the ROD identifies Washington State Solid Waste Handling Standards RCW 70.95 as a requirement. In 2020, Chapter 70.95 RCW Dispositions: SOLID WASTE MANAGEMENT — REDUCTION AND RECYCLING⁶ was recodified as Chapter 70A.205 RCW: SOLID WASTE MANAGEMENT—REDUCTION AND RECYCLING.⁷ An assessment of the changes and impact to the site should be made.

⁶ <https://app.leg.wa.gov/RCW/dispo.aspx?cite=70.95>

⁷ <https://app.leg.wa.gov/rcw/default.aspx?cite=70A.205>

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Resolution: As appropriate, reference recodified RCW.

Comment 44: V. TECHNICAL ASSESSMENT, Progress Towards RAOs, first bullet (RAO 6) on page 73. Is there room in the Soil Management Plan for adaptive management by including biochar as a way to further address metal availability?

Discussion: / Resolution: Consider if there is a need for adaptive management and implementing new/newer technology.

Comment 45: V. TECHNICAL ASSESSMENT, Question B Summary, Page 73 *Changes in Standards and TBCs*, 2nd bullet Updated State cleanup regulations. This statement on the revised MTCA regulations should include climate change resiliency requirements.

Discussion: The revised MTCA rule includes requirements to ensure the remedy is resilient to climate change impacts. This should be called out in this bullet so it is clear it is a rule requirement, which will support the third bullet on Ecology's Sustainable Remediation guidance.

Resolution: Clarify that climate change resiliency for the remedy is a MTCA rule requirement. In particular, include vulnerability assessments completed that demonstrate the Phase I and Phase II remedies are resilient to impacts such as flooding and wildfire.

Comment 46: V. TECHNICAL ASSESSMENT, Question B Summary. Page 74 *Changes in Standards and TBCs*, last paragraph, last sentence. This sentence needs to be qualified.

Discussion: As stated previously, Ecology has recommended additional sediment, surface water, and porewater sampling at all current and future seeps, near the MWTP outfall, and Lucerne Bar, which has not been done. Considering we do not have conclusive data on surface water and sediment quality in these areas, the statement should be qualified.

Resolution: Qualify the last sentence as (*recommended changes italicized*) "Recent bioassay data demonstrated sediment quality in Railroad Creek is protective of the benthic macroinvertebrate community *where sampled in 2024*."

Comment 47: V. TECHNICAL ASSESSMENT, Question B Summary. Page 74 Progress Towards RAOs, 2nd bullet. This sentence needs to be qualified as stated above.

Discussion: As stated previously, Ecology has recommended additional sediment, surface water, and porewater sampling at all current and future seeps, near the MWTP outfall, and Lucerne Bar, which has not been done. Considering we do not have conclusive data on surface water and sediment quality in these areas, the statement should be qualified.

Resolution: Qualify the last sentence as (*recommended changes italicized*) "Recent bioassay testing demonstrated sediment quality in Railroad Creek is protective of the benthic macroinvertebrate community *where sampled in 2024*."

§VI. ISSUES/RECOMMENDATIONS

Comment 48: VI. ISSUES/RECOMMENDATIONS. Page 77 Issue Category: Monitoring.

Discussion: This states that the west seeps may be bypassing the groundwater collection system and discharging contaminants into Railroad Creek.

However, past statements (Page 68, V. TECHNICAL ASSESSMENT, Question A Summary, *Remedial Action Performance* section, Operation and function of remedial action per design bullet, second sub-bullet and Page 69 Effectiveness of containment bullet, third sub-bullet, last sentence) suggest some of these seeps are not due to seepage through the barrier wall. Instead release of contaminants to Railroad Creek is due to leaching through contaminated sediment from the former stream channel.

Resolution: Reconcile these statements to clarify the difference between seeps from bypassed groundwater and seeps leaching through contaminated sediment, and add details on how this potential source of contaminants for Railroad Creek will be investigated and remediated.

§VII. PROTECTIVENESS STATEMENT

Comment 49: VII. PROTECTIVENESS STATEMENT, Page 79. This section lacks follow-up investigation and remedial actions for the Phase I barrier wall seeps, potentially due to remaining contaminated sediment.

Discussion: The seeps from the Phase I barrier wall do not appear to be specifically addressed in this section. For example, there is a new suggestion that some of the seep contamination is due to leaching from contaminated sediment located between the barrier wall and Railroad Creek from the original stream channel, and not from failure of the barrier wall. This needs to be investigated to verify the actual source of contaminants. If this suggestion is accurate, then the construction of the Phase II remedy should include a separate remedial action to remediate any remaining contaminated sediment.

Resolution: Add this investigation and remedial action to this section.

Comment 50: VII. PROTECTIVENESS STATEMENT, Page 79, first bullet, first sub-bullet. This statement appears to conflict with previous statements about contaminants leaching through remaining contaminated sediment between the barrier wall and Railroad Creek.

Discussion: It is unclear how Phase II groundwater containment will remediate the leaching of contaminants between the barrier wall and Railroad Creek, particularly since past statements state that release of contaminants is not due to leaching through the barrier wall. In addition, the statement that monitoring data shows the seep inputs do not create unacceptable risk to aquatic organisms in Railroad Creek is not supported.

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As stated earlier, Ecology has recommended additional sediment, surface water, and porewater sampling at all current and future seeps, which has not been done. Considering we do not have conclusive data on surface water and sediment quality in these areas, the statement should be qualified.

Resolution: Add a separate bullet about seeps that may be releasing contaminants due to leaching through contaminated sediment located between the barrier wall and Railroad Creek, and clarify future investigation and remedial actions for these seeps that are separate from other seeps that may be due to leaching through the barrier wall.

Comment 51: VII. PROTECTIVENESS STATEMENT, Page 79. Any future remediation for the wetland is lacking in this section.

Discussion: Ecology is not confident about the apparent path forward for the wetland. It is obvious that the wetland is highly impacted. Completion of the Phase II barrier wall will reduce contaminant loading to the wetland, but there is no acknowledgement that the wetland remains a source of contamination to Railroad Creek and should be remediated.

Resolution: Add remediation of the wetland as part of Phase II to this section.

Comment 52: VII. PROTECTIVENESS STATEMENT, Page 79. Other areas impacted by wind-blown tailings are not addressed.

Discussion: There are areas impacted by wind-blown tailings that were not addressed in the selected remedy. This is important to address in Phase II because they can be contaminant sources to surface water and sediment.

Resolution: Add details to assess erosion potential to ensure these areas are not, and will not be, sources to surface water and sediment.

APPENDICES

Comment 53: Appendix B – STATUS OF IMPLEMENTATION OF MAJOR REMEDIAL ACTION COMPONENTS. For the items in the first column with the heading “ROD Selected Remedy,” it would be beneficial to the reader to reference the section and subsection in the ROD that applies for each item in this column.

Resolution: Consider adding in ROD references.

Comment 54: Appendix C – MONITORING DATA. This appendix seems to be missing the sediment chemistry, bioassays, and biomonitoring data.

Resolution: Add the missing data.

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Please contact me at (509) 225-0304 or john.zinza@ecy.wa.gov if you require any clarification of these comments or have further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "John Zinza", with a stylized, cursive script.

John Zinza
Cleanup Project Manager
Toxics Cleanup Program
Central Regional Office