



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Central Region Office

1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

December 20, 2024

Sent via email

Allan Gebhard
Barr Engineering Co.
4300 Market Point Drive, Suite 200
Minneapolis, MN 55435

Re: Ecology amended comments to the draft East Side Conceptual Site Model and Data Gaps Report for the following Site:

- **Site Name:** Boise Cascade Mill
- **Site Address:** 805 N 7th Street, Yakima
- **Facility Site No.:** 450
- **Cleanup Site ID No.:** 12095
- **Agreed Order No.:** DE 13959

Dear Allan Gebhard:

This letter amends Ecology's November 25, 2024, comments submitted to Barr Engineering in response to the Barr Engineering, draft East Side Conceptual Site Model and Data Gaps Report (CSM-DG Report) dated March 29, 2024. On November 8, 2024, Ecology received a comment letter from the Yakama Nation Fisheries (YN), represented by R. Elena Ramirez Groszowski, L.G., on the draft CSM-DG Report. This letter amends our previous comments because of our review of the YN comment letter as part of the tribal engagement process. A copy of the YN comment letter is enclosed with this letter. Our response is consistent with our authority under the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.¹

Comment 28: See comments from the YN, represented by R. Elena Ramirez Groszowski, L.G.

Discussion: The Yakama Nation has expressed extensive concerns about the content, lack of content, and approach to this CSM-DG Report. Ecology shares these same concerns, many of which support our previous comments.

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

Allan Gebhard
Barr Engineering Co.
December 20, 2024
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Please see YN's comments as follows:

- 2 through 8, regarding report format; identifying the site per MTCA versus a focus on property boundaries and extents of the site; CPOCs, PCULs, and submitted plans; the need for a single conceptual site model; providing information on the history of fires at the site; view of AOC 28; and identify critical habitat.
- 9 through 13 which emphasize the need for improved summary tables and figures.
- 16 on Section 2 regarding past approvals and finalized lists.
- 17 through 38 on Section 3 which focus on providing detailed information necessary for Ecology and the YN to understand and evaluate data gaps at this site.
- 39 through 52 on Section 5 Conceptual Site Model, which express concerns about your model missing pathways and receptors and not addressing sediments.
- 53 through 61 on Section 6 Data Gap Analysis, which provide extensive comments on the addendum, cultural resources, in addition to comments on your data gap text.
- 62 on Section 7 Next Steps of which Ecology concurs with the need for additional work.
- 63 through 68, which express concerns about the information presented (and not presented) in the Tables, Figures, and Appendices.

Resolution: Address these concerns shared by Ecology and the YN in your response.

We sincerely appreciate the cooperation and efforts made to move this site forward. We reserve the right to add additional comments as appropriate. Please contact me at (509) 225-0304 or john.zinza@ecy.wa.gov if you require clarification of these comments or have further questions.

Sincerely,



John Zinza
Cleanup Project Manager
Toxics Cleanup Program
Central Regional Office

Enclosure: Yakama Nation Comment Letter on East Side Conceptual Site Model and Data Gaps Report for the Boise Cascade Mill Site, dated November 8, 2024

ENCLOSURE



Confederated Tribes and Bands
Yakama Nation

Established by the
Treaty of June 9, 1855

Via Email (jzin461@ecy.wa.gov)

November 8, 2024

Washington State Department of Ecology
c/o John Zinza
1250 Alder Street
Union Gap, WA 98903

RE: Yakama Nation Comments on East Side Conceptual Site Model and Data Gaps Report for the Boise Cascade Mill Site

Dear John,

The Confederated Tribes and Bands of the Yakama Nation (Yakama Nation), as an oversight agency, have prepared these comments on the East Side Conceptual Site Model and Data Gaps Report for the former Boise Cascade Yakima Mill Site (Site; Facility Site ID: 450, Cleanup Site ID: 12095), prepared by BARR Engineering Co (BARR) and dated March 29, 2024. This document was prepared to evaluate the extent and connection of other lands to the Boise Cascade mill facility, specifically those east of Interstate 82. Many of these lands are located immediately adjacent to the Yakima River within the City of Yakima. These comments were prepared by Yakama Nation Fisheries staff and consultant (Mott MacDonald).

General Comments

1. Yakama Nation, as an oversight agency, requests to be included in the distribution of documents and deliverables between the Washington State Department of Ecology and the Mill Site PLPs related to the MTCA site including the former mill parcels east of Interstate 82 (I-82). Please direct these documents to the attention of Elena Ramirez Groszowski at rame@yakamafish-nsn.gov.
2. The format of this report does not take an appropriate approach to evaluating the extent of mill-related activities outside of those already known. The approach to this document should not be parcel driven, but instead use the extent of historical activities related to the mill as a guide. The current format may be limiting, and we recommend changing the format to be broad in geographic scope and have areas defined by activities or impacts, with eventual discussion of the location *9in terms of current parcels and ownership.

3. While it is recognized that the Mill site, portions of the current city landfill, the I-82 corridor, and the parcels east of I-82 have a long and complex history related to varied operations and activities, historical documentation and current observation demonstrates that these operations and activities, as well as the resulting impacts, are primarily Mill-related. As such, all site areas where known or suspected Mill-related operations and / or impacts may be present should be combined and evaluated as one site under the Model Toxics Control Act (MTCA). Per MTCA, the site boundary limits should be based on the known or suspected extent of environmental impacts and not parcel boundaries.
4. New Contaminants of Potential Concerns (COPCs), Preliminary Cleanup Levels (PCULs), and a Sampling and Analysis Project Plan and Quality Assurance Project Plan (SAPP/QAPP) should be developed for the entire site, taking into full consideration all potential Mill-related contaminant source materials and all potential pathways and receptors.
5. A single Conceptual Site Model (CSM) should be developed to evaluate all potential pathways and receptors in sediment, soil, vapor, groundwater, surface water, ecological systems, and hyporheic zones between the main Mill Site west of I-82 and up to and including the Yakima River (with consideration for potential impacts to its downstream reaches). Connections to surface water features and pathways to and from sediment (such as surface runoff and preferential flow paths) should be included in the CSM and future investigations.
6. The site has a long history of fires related to Mill operations. Information about fires that have occurred within the site area historically or more recently should be included. This information should include the year the fire occurred, the type of fire (specific equipment or wood/debris), where fire debris and waste were disposed of, and any other known details. In addition, a history of fires (or smoldering areas) on the east-side parcels should also be discussed.
7. The Yakama Nation does not concur with the proposed Area of Concern (AOC) investigation area boundary for the areas east of I-82 (AOC 28 in the data gaps report). This area should be updated to include all media and areas potentially impacted by Mill site activities. This area should also include riverbanks or other areas within potentially impacted parcels like the areas east of Parcels D and E outside of the levees, even if those areas may be inaccessible, they should still be fully evaluated. Additionally, the I-82 corridor should be included within the proposed AOC due to known Mill-related impacts within the corridor.
8. The report should document that the Yakima River adjacent to this MTCA site is important to ESA-listed species (with designated Critical Habitat), Treaty reserved species, and habitat supporting spawning, rearing, migration, and foraging. Additional groundwater wells and investigations should be conducted along either side of the levee and near the river to determine if contamination has reached or impacted the hyporheic zone and/or groundwater upwelling areas, including where (permanent or temporary) bridge footings will be placed.

Specific Comments

9. A summary table within Section 1 should clearly identify the areas and historical activities discussed in the report. This table should include information related to the use history, duration, potential impacts, parcel name, parcel identification number, ownership, ownership transfer history, formation/construction details, size of the parcel/area, and any other relevant details.
10. A map of the entire Mill site, including the east-side mill areas, delineating the footprint of all past and present Mill operations, both suspected and known, should be included. Any delineation of areas of interest should be based on the footprint of operations rather than parcel boundary lines. This should include any areas within the Yakima River used to support mill activities.
11. The context/relationship to where this MTCA site sits within and/or intersects with the Yakima River Gap to Gap Restoration Project should be discussed. A map showing the restoration areas should be included.
12. Figures illustrating the 100-year floodplain, 500-year floodplain, floodway, channel migration zone, revetment and levee system, and irrigation district ditches/ponds both current and throughout the site history of operations should be included. A summary of flooding events, associated water levels, and frequency of flooding through time should also be discussed.
13. A summary, including appropriate tables detailing the historical Mill document reviewed which was conducted as part of the main Mill Site Remedial Investigation Work Plan (RIWP) should be included.
14. In section 1 Introduction, page 2 second paragraph below the bullets...please adjust the sentence that starts with “Following Ecology’s review...” to also include Yakama Nation’s review of the Report and comments/input will be incorporated into the AOC 28 RIWP Addendum.
15. In the final paragraph on page 2 and the first paragraph on page 3, it should be noted that the investigation report (Step 3) will be submitted to Ecology and Yakama Nation.
16. In section 2 Mill Site Project Background, there are several references to Ecology-approved documents and “final” COPC lists. These documents have not gone through the public comment period nor been documented in an agreed order or consent decree. The report should not identify these as final.
17. In section 3 Available Information on East-Side Area, areas used by the mill need to be more clearly referenced by mill use and activity in addition to parcel information.
18. In section 3.1.2, the topography discussion of the site has evolved over time throughout the Mill’s history with the earliest levees, the 1948 federal levee system, and more modern changes. These changes over time should be described. If any material was used for filling the levee or in areas behind the levees that originated from the Mill site, it should be described (location, material type, placement dates, etc.).

19. In section 3.1.5, in addition to the Yakima River, a detailed inventory of freshwater lakes, ponds, or wetlands within the investigation area should be included. Information on when they were formed, if constructed, the range of their dimensions through the history of operations, and relationship to any of the parcels evaluated should be included. This should include Rotary Lake, Cascade Mill Pond, and any other ponds or lakes within the historical footprint of mill activities. Additionally, aerial imagery shows other ponds that were historically present adjacent to or at the fill areas in Parcels C1, C2, and D that are not depicted or discussed. The history of these former surface water features should be discussed.
20. In section 3.1.7 Area Hydrogeology, the final paragraph on page 12 should note that groundwater should be considered as a potential future source of drinking water and be considered for the highest beneficial use to support site-specific surface water uses.
21. In section 3.2 Parcel and I-82 Corridor Histories, a history of the levee system along the parcels should be included in this document and evaluated for future investigations.
22. The table of contents should note where historical records and aerial photographs can be found.
23. In section 3.2 Parcel and I-82 Corridor Histories, the footnote related to LYM (log yard material) should be removed. Wood waste is an industrial waste product that facilitates the release of hazardous substances that are known to impact sites where wood wastes are in or adjacent to waterways, especially those designated as critical habitat or waterways planned for restoration work to support salmonid recovery.
24. In section 3.2.3.4, Parcel C2 appears to be hydraulically downgradient of known LYM fill placed in Parcel C1 and hummocky terrain was reportedly observed in Parcel C2. All areas of Parcel C2 should be included in AOC 28 and potential impacts to groundwater considered.
25. In section 3.2.4.1, in the fourth paragraph, the reviewed aerial imagery may not show evidence of fill being placed in the Mill Pond, but there is potential that material related to Mill activities may have directly or indirectly entered the Mill Pond or other surface water features and should be discussed.
26. In section 3.2.4.1, in the 8th paragraph, “the southern portion of Parcel D appears to have been graded or removed”, as a general comment outside of this sentence, the report does not discuss the potential for anthropogenic activities (such as earthworks), sediment migration in response to flooding events, or channel migration to obscure landform surfaces otherwise indicative of historical fill placement. A frequent observation stated throughout the report is that hummocky terrain is indicative of fill material placement, which it often is, but other activities or events, such as those listed above, have potential to obscure landform expressions of fill placement and should be discussed.
27. In section 3.2.4.3 Previous Investigations and Known Conditions (for Parcel D), complete copies of any reports referenced in the previous investigations section should be provided as an appendix. In addition, a discussion regarding the method(s) used to determine depths to groundwater and the frequency of readings (e.g., were the readings

taken from open boreholes at or after the time of drilling, were 24-hour equilibrated depth groundwater to groundwater readings collected, is the potential variability of the groundwater table elevation understood, etc.) should be described.

28. In section 3.2.4.4, areas of Parcel D as well as areas to the east of the flood protection levee (which appear to be hydraulically downgradient of reported LYM containing fill placement) are not included in AOC 28. Historical aerial imagery and visual site inspections may not reveal the full historical or current presence of Mill-related materials which have the potential for impacting sediment, surface water, and groundwater. All areas of Parcel D should be Included in AOC 28.
29. In section 3.2.5.4, the entirety of Parcel E should be included in AOC 28 given the nature and extent of materials storage and placement in Parcel E related to Mill activities. LYM or other potential COPC source material may have been placed in areas of Parcel E that are currently unknown, and these potential sources might have resulted in impacts that extend beyond the bounds of the known Mill-related fill placement areas or areas west of the flood protection dike.
30. In section 3.2.7.1 Aerial Photograph Review and Historical Uses (I-82 Corridor), the last sentence of the first paragraph, identifies “*other operations unrelated to the Mill likely extended onto what became the corridor at various locations along the corridor.*” It should be explained how “other operations unrelated to the Mill” fits into the site use and ownership history of the site. An explanation of these other operations unrelated to the Mill should be included.
31. Section 3.2.7.1 details multiple historical channels and pipes which conveyed water to or from the Mill and the Yakima River. Any conveyance feature has a heightened potential for environmental impacts. These features should be discussed in greater detail and a summary table presenting relevant information such as backfill material, potential hydraulic connections, potential COPC transportation, potential preferential flow pathways, etc. should be provided.
32. Section 3.2.7.1, paragraph four states, “the extent of LYM placement that would have been removed by I-82 construction is shown on Figure 3”. Fulcrum’s March 29 report states that design / as-built documents for the construction of I-82 were not reviewed as they were “old” and “voluminous”. It is noted that the age of the as-builts is similar in age to some of the historical aerial imagery that is reviewed within the report and is reflective of the time the roadway was constructed. As-builts detailing cut and fill operations and geotechnical earthworks specifications for construction of I-82 to evaluate the extent of potential LYM containing fill material that may or may not have been removed as part of I-82 construction works should be reviewed and discussed.
33. Section 3.2.7.2 discusses stormwater best management practices, but states, “the management of stormwater runoff from I-82 is not clear based on the reconnaissance”. A clear discussion of the configuration, capture, and discharge of stormwater, including relevant figures and tables should be provided. The potential for COPC transport associated with stormwater best management practices; considering some best

management practices reportedly discharge to surface water features this is a potential pathway and data gap and should be discussed.

34. In section 3.2.7.3 Previous Investigations and Known Conditions (I-82 Corridor), the referenced borings logs, nor the Shannon and Wilson 2023 report could be located within the report materials. This information should be included in the report.
35. Section 3.2.7.3 makes several statements regarding geotechnical boring logs and laboratory analyses performed on soil samples collected as part of Shannon and Wilson's investigation program. These statements include, "As described above, I-82 was constructed through former LYM placement and Mill-related material storage areas in the late 1950s/early 1960s. The borings indicate that the majority of the LYM was removed with the construction of I-82, consistent with good construction practices." This statement is presented for the entire North - South alignment of I-82 based on ten (10) geotechnical borings all advanced adjacent to the boundary of Parcel D and Parcel E. There is approximately 1.25-miles of additional roadway alignment to the north along I-82 which is not represented by these geotechnical borings to support this statement. Additionally, we note that **(1)** "good construction practices" are not always followed, and **(2)** depending on the design of the embankments and pavement along the I-82 alignment it is possible not all fill material was recommended for removal and replacement. While it is good practice to remove and replace unsuitable fill material, depending on: **(a)** the geotechnical nature of the observed fill material, **(b)** elevation and thickness of the fill material relative to proposed grade, **(c)** design loads and embankment slope stability, and **(d)** potential ground improvement alternatives, there is no guarantee all Mill-related fill material would have necessitated removal or been removed. There is also a potential for suitable soils to have been impacted by Mill-related material storage or LYM placement and left in place. This section needs to consider that not all LYM was removed and should be discussed.
36. In section 3.2.7.3, paragraph one states, "A few soil samples from other borings showed evidence of woody debris or soil with elevated TPH concentrations higher up in the embankment fill that are likely not associated with the Mill". A discussion explaining how these impacts are likely not associated with the Mill should be included.
37. In section 3.2.7.4, the first paragraph states, "Further investigation of the I-82 corridor embankment fill would involve safety issues in drilling, and it is considered unlikely that any remedy involving the base of the embankment fill carrying the interstate highway would be impractical". Work within the DOT right-of-way should not be discounted because of potential challenges. With coordination with the two agencies (City of Yakima and Yakima County) that are building a roadway through and under I-82, opportunities to collect additional environmental data should be utilized. Directional or angled drilling or other technologies could also be used to target areas of interest. Depending on the nature and extent of potential COPCs related to Mill activities which might be present within the I-82 corridor, there may be viable remedial or mitigation activities that could be performed, either as direct source treatment or hydraulically downgradient if dissolved phase transport or dispersion is determined to be a concern.

Characterization of such impacts may be an important component to develop a complete CSM and should be discussed.

38. In section 3.2.7.4, the first paragraph states, “As such, the I-82 corridor will not be included in AOC 28”. Yakima Nation does not concur with this statement or the report’s reasoning for excluding the I-82 corridor from AOC 28. It is a large area of the site, was formerly part of the Mill property, conveyance channels and pipes cross-cutting I-82 conveyed fluid between the main Mill Site and the parcels east of I-82, groundwater likely flows from parcels west of I-82 toward the Yakima River, sufficient evidence has not been presented to determine if LYM containing material was removed, existing subsurface information is limited across the I-82 footprint, and potential impacts to remaining material are not delineated or characterized. The I-82 corridor should be included in AOC 28.
39. In section 5.2 Potential Sources of Hazardous Substances in the fourth paragraph, both pentachlorophenol (PCP) and bis(2-ethylhexyl)phthalate should be retained as site-specific COPCs. Concentrations detected in soils and groundwater indicate that these chemicals remain of concern. PCP may be an indicator chemical for dioxins and furans, which have never been evaluated at the site.
40. In section 5.3 Impacted Media, “pond bottom material” must be identified as sediment.
41. In section 5.3, please note that surface water through the groundwater pathway is not the only mechanism that can impact surface water. Mill site activities and impacts are observed at the land surface within some of these parcels. The references to the surface water pathways should be updated to include overland flow and soils to surface water.
42. In section 5.3 Impacted Media, in addition to landfill gases from the MSW landfill impacting soil gas and groundwater, soil gas and groundwater may also be impacted by soil gases generated from the Mill site activities and wastes and should be identified.
43. In section 5.3 Impacted Media, sediment in pond bottoms should be evaluated in the east side ponds because groundwater may have discharged to these ponds, the Cascade Mill Pond received water from the NFLD and the River water Intake ditch, both which pass through the mill site. There is also reference of a remnant site ditch outfall that may have contributed site contaminants. In addition, these water bodies may have received surficial/overland flow from surrounding soils impacted by Mill site activities. This section should be updated to reflect this information.
44. In section 5.4 Potential Exposure Pathways, the bullet for “soil leaching to groundwater pathway (protection of groundwater)” should be updated to include protection of surface water.
45. In section 5.4 Potential Exposure Pathways, for the bullet identified as “soil vapor – receptor pathway” in addition to methane, volatile organic compounds (VOCs) in soil gas should also be included. VOCs have been detected in soil gas at other areas of the Mill site and should not be excluded.

46. In section 5.4 Potential Exposure Pathways, the groundwater to sediment and surface water to sediment and associated human health exposure pathways should be included for evaluation.
47. In section 5.5 Potential Receptors, the explanation of “Public recreational receptors (adults and children) should be broadened to include tribal cultural users (adults and children) and include direct contact with surface water and sediments, in addition to the listed media.
48. In section 5.5 Potential Receptors, in the bullet starting with “Site construction/maintenance workers (adults),” the direct contact to media should include surface water and sediment.
49. In section 5.5 Potential Receptors, in the bullet starting with “Homeless encampment occupants (adults and children),” the direct contact to media should include surface water and sediment.
50. In section 5.5 Potential Receptors, in the bullet starting with “Terrestrial plants and wildlife...,” it should be referenced that plants and wildlife should be evaluated using the Terrestrial Ecological Evaluation (TEE) process and the associated chemicals in addition to site-specific COPCs should be evaluated.
51. In section 5.5 Potential Receptors, in the bullet starting with “Aquatic wildlife” sediment should be evaluated using appropriate sediment standards.
52. In section 5.5 Potential Receptors, Tribal subsistence consumers (adults and children) should be included as a potential receptor.
53. In section 6 Data Gap Analysis, the second paragraph that identifies that the AOC 28 RIWP Addendum will use previously prepared procedures from 2019 RIWP. Enough time has elapsed since this work, the media and analyte list different, that a new site-specific SAPP/QAPP should be written. This new SAPP/QAPP should consider new pathways and include any new screening levels that are applicable.
54. In section 6 Data Gap Analysis, the second paragraph identifies that an Inadvertent Discovery Plan should be updated and included. Updated contact information for and consultation with the Yakama Nation’s Cultural Resources Program will be necessary to ensure that the proposed inadvertent discovery plan is appropriate and if any other needs are required to conduct work in this culturally sensitive area.
55. In section 6 Data Gap Analysis, the paragraph starting with Data Gap #1...should be updated to read “...– Characterize the nature, magnitude, and extent of any mill-related impacts (placement of fill or other impacts) including any contamination associated with mill on any area used by the mill. The evaluation of impacts is not limited to LYM, but all potentially impacted media connected with mill activities.
56. In section 6 Data Gap Analysis, the last paragraph on page 36 indicates that test pits will be used to close this data gap. Test pits are not the most appropriate tool to close this data gap. Any samples collected for chemical analysis should not be collected using test pits and excavation equipment.

57. In section 6 Data Gap Analysis, the first paragraph on page 37 indicates that samples collected by test pits and borings are only limited to soil COPCs. Because there may or may not be a connection with chemicals found elsewhere on the site, chemical analyses should not be limited to items identified as COPCs. Full suites of potential chemical groups for the potentially impacted media should be analyzed.
58. In section 6 Data Gap Analysis, in the paragraph that starts with “Data Gap #2...” “containing LYM” in the second line should be removed. Evaluating Mill site related impacts is not limited to fill containing LYM, but rather all areas impacted by Mill site activities. Evaluation of groundwater should not be limited to PCULs for Mill site and LF site COPCs, but all potential chemical groups related to site activities.
59. In section 6 Data Gap Analysis, for Data Gap #3, a survey of VOCs should be included. The area to be evaluated should not be limited to areas that only contain LYM fill as soil gases can migrate within the vadose zone and with groundwater.
60. In section 6 Data Gap Analysis for Data Gap #4, in addition to the identification of any regulated wetlands any areas of critical or priority habitat and potentially related species should be included.
61. In section 6 Data Gap Analysis, an additional data gap should be added that addresses defining areas with surface water and sediments so that all potentially contaminated media can be evaluated thoroughly.
62. In section 7 Next Steps, it should be noted comments provided to the PLPs on the CSM/Data Gaps Report will inform any future remedial investigation-related work plans. Yakima Nation does not agree that the proposed “next steps” as presented in the Report and additional work will be needed to identify the most efficient path forward.
63. For Table 1, the analyte lists should not be limited to COPCs for the Mill and LF sites. The COPC lists are a subset of chemicals to be evaluated but should also include chemicals included in the TEE lists, and more general chemical groups to ensure a thorough evaluation of the nature and extent of potential impacts from mill activities.
64. In Figure 1, a historical aerial photograph should be used as the base image that shows the maximum extent of the Mill property and areas used by the mill.
65. Figure 4 should include information (boring locations) from the County of Yakima’s proposed investigation to help identify additional data gaps.
66. Figures 6 and 7 should be updated to capture the recommended changes in the CSM presented within these comments.
67. There should be an appendix that includes all aerial photographs used in the analysis to support the findings of this report.
68. There should be an appendix that includes all field notes, photographs, and other documents that memorializes the field reconnaissance work and findings.

Please do not hesitate to contact me with any questions. I can be reached at rame@yakamafish-nsn.gov or by telephone at (509) 426-3179.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Elena Ramirez Groszowski'.

R. Elena Ramirez Groszowski, L.G.
Yakama Nation Fisheries

Cc: Jennifer Lind, Washington State Department of Ecology
Nate Paris, Washington State Department of Ecology