

**Monte Cristo Mining Area (MCMA)
Silverton, Washington**

Interim Remedial Action and SEPA Determination of Non-Significance

Responsiveness Summary

**For Comments Received
Comment Period Ending June 17, 2015**

On May 18, 2015, the State of Washington, Department of Ecology (Ecology) issued a fact sheet about an interim remedial action at the Monte Cristo Mining Area (MCMA). The fact sheet was titled "Interim Action Plan and SEPA Notice." The fact sheet outlines Ecology's proposed remedial action at the MCMA including removing contaminated soil and disposing of it in a U.S. Forest Service (USFS) repository. Dangerous waste will be disposed of at a dangerous waste landfill. Pursuant to WAC 173-340-600, the proposed remedial actions were subject to public comment from May 18 to June 17, 2015.

Ecology received comments from the following individuals and/or organizations:

Dana Andrews
Daryl Jacobson
Forrest Johanson
William Lider
Pilchuck Audubon Society
Sierra Club – Washington State Chapter
George Winters

Ecology sincerely appreciates comments from the individuals and organizations listed above.

This Responsiveness Summary sets forth Ecology's responses to the comments received regarding the proposed remedial action for the MCMA. The comments received are grouped by subject. Comments are italicized and responses are in bold.

Ecology and U.S. Forest Service Partnership

The work to investigate and clean up contaminated materials at the MCMA is a partnership effort between the USFS and Ecology. Both agencies have prepared documents that are applicable to its implementing regulation – e.g., the Model Toxics Control Act (MTCA) for private land, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for federal land.

That means the Interim Action Plan put out for public comment is only applicable to work to be conducted on the privately owned parcels (Figures 1 and 2). The USFS provided a 30-day public

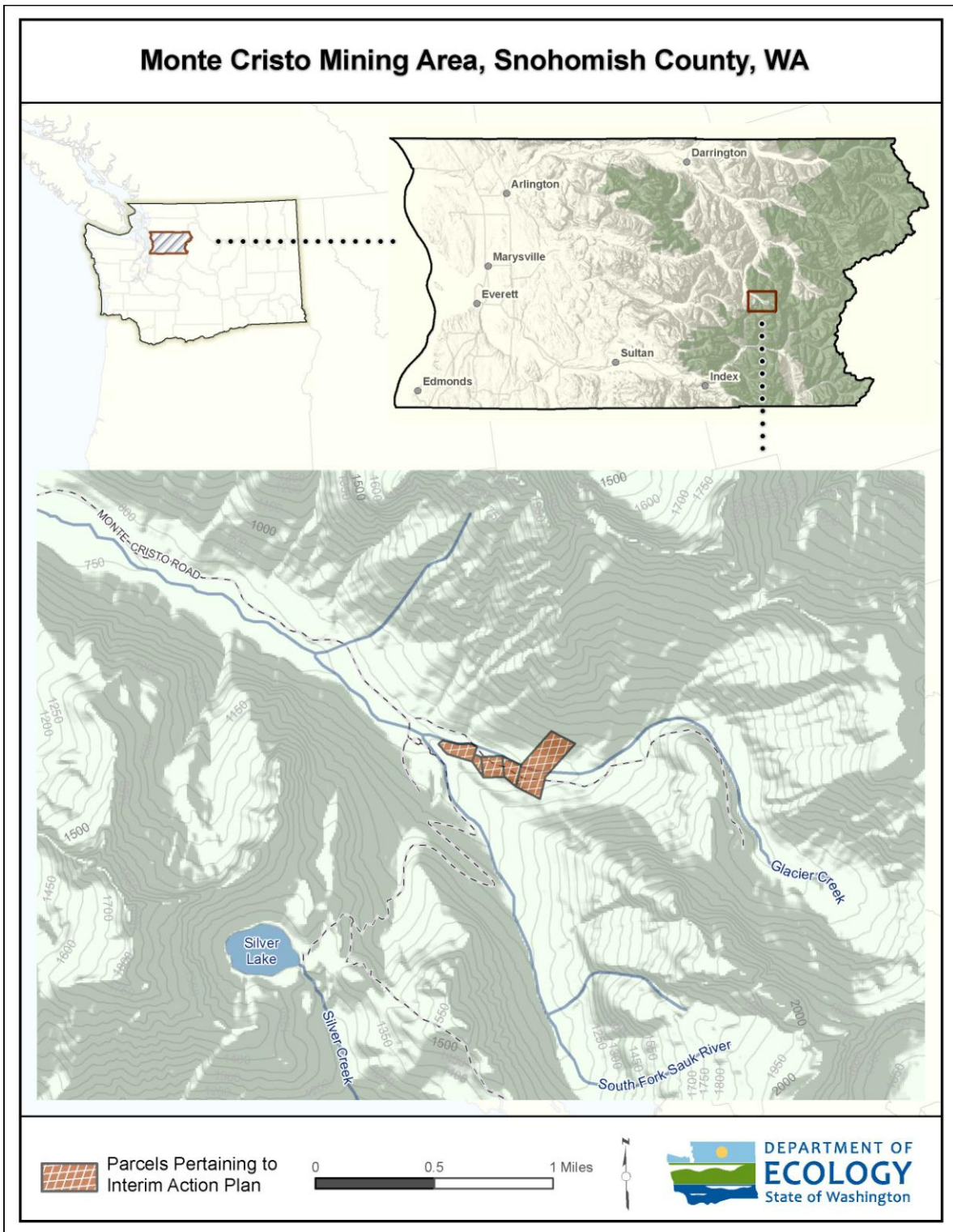


Figure 1. Privately owned parcels within Monte Cristo Mining Area (MCMA) subject to the interim remedial action.

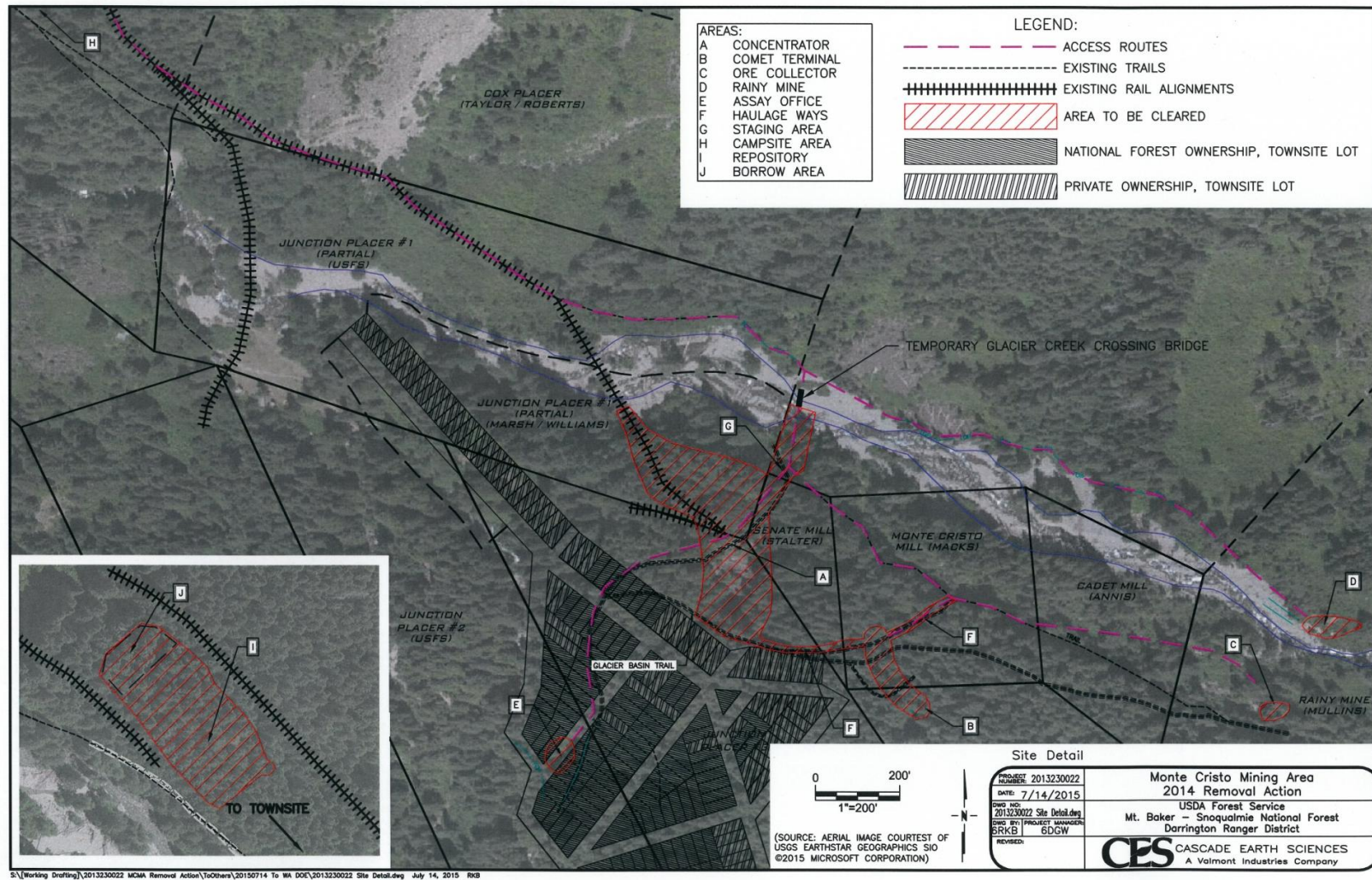


Figure 2. Locations of interim remedial actions to be conducted on privately owned parcels, USFS federal land, and the repository (USFS federal land). For planning purposes, this figure represents the maximum clearing necessary to complete the project; actual clearing limits are anticipated to be smaller.

comment period during May and June 2015 for review and comment of an Explanation of Significant Differences document that covers activities to be conducted on USFS federal land. Ecology received requests by several individuals and groups to review and comment on their letters submitted to the USFS for the USFS comment period and copied to Ecology. Ecology feels that the USFS response to these comments is adequate.

The USFS Explanation of Significant Differences document and a response to comments by the USFS are available on the USFS website at <http://www.fs.usda.gov/detail/mbs/landmanagement/?cid=stelprdb5162487>.

SUPPORTIVE/MISCELLANEOUS COMMENTS

C1. "You are putting in a first class road and we salute you for that. Access has been spotty or nonexistent for too many years."

This sentiment seems to be shared by many who enjoy using the area. Ecology will pass this on to the USFS.

C2. "I am also pleased to see you have the correct map locations for the patented mining claims."

Thank you. We strive for accuracy in all our documents.

C3. "I am glad to hear that the more "Dangerous Waste" material will be taken off Forest Service property, as maintaining these repositories will be a never ending nightmare in the future for the Forest Service."

We appreciate that you view this as a positive. All dangerous waste materials will be taken to a permitted dangerous waste landfill.

C4. Ecology received general statements offering to provide support for the project.

Ecology appreciates these statements and the offer of support.

SEPA DETERMINATION OF NON-SIGNIFICANCE (DNS)

C5. "The DOE has failed to adequately address the environmental effects of this project in its SEPA checklist. Therefore, the Determination of Non-Significance (DNS) should be removed and a full Environmental Impact Statement prepared."

C6. *“My review of the aforementioned Ecology documents show that they not match the USFS’s 95% design drawings dated 2/25/2015 that were used in the preparation of Ecology’s SEPA Checklist dated 5/12/15 by Jason Shira. This resulted in an arbitrary and capricious decision by Ecology in it issuance of a DNS that will likely adversely affect the environment and endangered species. The DNS and propose project are both fatally flawed; the DNS should be withdrawn, a Determination of Significance (DS) issued, and an Environmental Impact State required before this project is allowed to proceed any further.”*

C7. *“There are significant errors in the SEPA Checklist and Draft Interim Action Plan that resulted in the erroneous DNS decision. Ecology’s responsible official, Valerie Bound confirmed to me in personal communication that she has never visited the site to view the stability of the mature forest canopy and soil/duff layer that has accumulated over the last 115-years; nonetheless she still signed off on the DNS, sight unseen.”*

C8. *“The foregoing described impacts are significant and are likely have adverse environmental impacts from this project. It is obvious that Ecology has made an error in its issuance of a DNS for this project. The DNS should be withdrawn and replaced with a Determination of Significance (DS) and an Environmental Impact Statement (EIS) prepared before this project proceeds any further.”*

Ecology stands by its DNS determination. Although the comments have pointed out some errors and/or omissions, they are minor and do not change the determination decision.

BUDGET AND OVERSIGHT

C9. *“The access route the Forest Service created did not follow the original plan, it has been built in an ill-considered way and is not even adequate for some of the activity that it was supposed to have been created for. The Forest Service project manager for the route construction had continual problems meeting deadlines and budget. They changed the route and the construction plan for maters of convenience and failing budget. Obviously they did not start out with a realistic plan and budget for the actual conditions of the area.”*

C10. *“The route the Forest Service built goes into a wetland. This should not have happened, it would not have been allowed for normal road building or ground disturbance activity. Again, this change happened because the original planning and budget was inadequate for the actual site conditions. If the State plan needs to haul out hazardous material it is very likely that the existing route will not be adequate.”*

C11. *“If the Forest Service repository is built with the same lack competent planning and failure to follow plans and meet budget as has happened with the route building process, then the repository will be completely unreliable.”*

C12. "Where is the evidence that the Forest Service will do any better planing and budgeting and execution for the repository than they have done for the access route? The State plan seems to be dependent on this structure."

These comments apply to action on federal land and are subject to CERCLA, please see the USFS response to comments.

APPLICABILITY OF STATE AND LOCAL PERMITS

C13. "The SEPA checklist failed to identify all required permits. Clearing over 7,000 square feet or grading of over 100 cubic yards on private property is a Land Disturbing Activity (LDA) as defined under Snohomish County Code SCC 30.63B. All LDA's must comply with all applicable provisions of chapter 30.63A SCC (Drainage). The thresholds above trigger drainage minimum requirements 1 through 5 (SCC 30.63A.400 through 30.63A.525) and require the submittal of a targeted stormwater site plan. Additionally, a SWPPP must also be prepared. Work at the Ore Concentrator, Assay Shack, Comet Mine, Ore Collector, and Rainy Mine sites are all on private property requiring LDA permits. Therefore no work may proceed in these areas until issuance of all work permits."

C14. "We believe that in order for the work private lands to commence, a Land Disturbance Activity (LDA) permit must be issued by Snohomish County. Please provide documentation that Ecology has applied for an LDA permits with Snohomish County before any work is commenced on private properties."

C15. "The SEPA checklist identified a 500 gallon holding tank and drain field for disposal of graywater. Please provide a detailed design showing the location of the proposed subsurface drain field for disposal of grawater. Explain how human wastes (e.g. blackwater) will be prevented from entering the graywater field. Will Ecology obtain the necessary permits from the Snohomish County Health District prior to construction of the 500 gallon holding tank and graywater drain field? Please reference the Snohomish County Health District's Sanitary Code for campground sanitary facility regulations and design requirements."

C16. "The DOE should obtain a septic permit from the Snohomish County Health District for the proposed graywater drainfield. This should have been included in the SEPA checklist under section A10, "government approvals or permits." No drainfield design or specific location was provided in the Action Plan, so the effects of this feature cannot be adequately assessed."

The Washington State Model Toxics Control Act (MTCA), RCW 70.105D.090(1) states that "A person conducting a remedial action at a facility under a consent decree, order, or agreed order, and the department when it conducts a remedial action, are exempt from the procedural requirements of chapters [70.94](#), [70.95](#), [70.105](#), [77.55](#), [90.48](#), and [90.58](#) RCW, and the procedural requirements of any laws requiring or authorizing local government permits or

approvals for the remedial action. The department shall ensure compliance with the substantive provisions of chapters [70.94](#), [70.95](#), [70.105](#), [77.55](#), [90.48](#), and [90.58](#) RCW, and the substantive provisions of any laws requiring or authorizing local government permits of approvals.”

Similarly, CERCLA Section 121(e)(1) (42 U.S.C. § 9621) exempts remedial actions taken pursuant to Federal action from all Federal, State, and local permitting requirements. The USFS is implementing this interim remedial action under the authority it holds for CERCLA action on National Forest lands. Accordingly, county permits are not required.

Substantive provisions of applicable laws and regulations will be followed. The graywater drainfield will be situated north of the existing campground footprint in an area of low shrubs and grass. The feature will be removed as part of demobilization and the area reclaimed.

INTERIM REMEDIAL ACTION ALTERNATIVE SELECTION

C17. “The DRAFT Interim Action Plan failed to adequately evaluate less risky options such as cap in place remediation that would be less costly and provide better environmental protection.”

C18. “My foremost concern is the removal of the waste rock from the tailings piles of the Rainy, Pride of the Woods, and the Sidney Mines. My concern is that you’ll do more damage to the ecosystem by disturbing these concrete solid waste piles than just capping them. These three waste piles form the edge of flowing waterways making it impossible to dig and remove them without unleashing even more contaminates into the waterways. It seems to me that the best and cheapest ways to mitigate the problem would be to #1 let it be....#2 would be to just cap them....”

C19. “The proposed remediation will mobilize toxic materials that have been somewhat stabilized by over a century of vegetation growth and humus deposition. It will degrade critical fish and wildlife habitat, destroy irreplaceable historical structures, and ruin the natural beauty of this area that has come so far to heal itself in the last century.”

C20. “At the Darrington public meeting put on by the US Forest Service and other government agencies, it was stated that if someone camped directly on one of these tailings areas and drank the local water all summer long for 10 years, they would increase their likely risk of cancer by something around 5 in 1,000,000. Put this into perspective that the already existing likely hood of a US resident getting cancer is between 1 in 4 and 1 in 5. The actual improvement in risk for the real local flora and fauna (including humans) is probably un-measurable, while the proposed action will very likely create new hazards and will definitely harm existing flora and fauna directly and immediately. You will be turing a 100 year old problem into a problem today.”

C21. "Alternatives such a cap-in-place should be seriously considered as a part of an EIS to reduce erosion and the other significant, unmitigated impacts of this project from massive clearing. The selected interim action will increase the threat to human health and the environment by the excavation, abrasion, hauling, dumping, and handling of hazardous materials and native materials that contain naturally high levels of heavy metals in a high rainfall area."

C22. "I feel that all mining material should be left in the mining district because the mountains, valleys and talus slopes have these same minerals in them naturally. Also, these old mine sites on the National Forest have been abandoned for about 100 years for the most part and have weathered back to almost normal, background levels."

C23. "I am concerned about the methods used to determine leachability." (paraphrased) "In the past, I have been told that the site is too toxic to excavate and I strongly feel this is not true."

C24. "Why is there a need to excavate materials at the concentrator?" (paraphrased)

C25. "I am concerned about how historical artifacts may be affected by the cleanup, including near the concentrator, collector terminal, Comet receiving terminal and haulage trench, Golden Cord Bunker and haulage trench, and horse drawn tram. In many cases I request if these areas can be left alone and/or different portions of the site be targeted for cleanup." (paraphrased)

Analytical data, human health risk assessments, and engineering analyses have concluded that removing the hazardous materials present at the surface from various locations within the MCMA and consolidating and isolating those materials in a single, on-site engineered repository was the most protective of human health and the environments of all the evaluated alternatives (including the "no action" and cap-in-place alternatives). Widely accepted test methods were used to determine leaching potential and toxicity.

With the exception of a small area below the Concentrator, all areas where excavation will occur are non-vegetated waste rock piles and exposed to the visitors and the environment. Previous studies have identified that these areas pose a threat to human health and the environment from exposure to high concentrations of hazardous substances, particularly arsenic, in the mine waste, tailings, soil, and sediment. Although metals concentrations in background soils are elevated, metals in waste rock, tailings, and soils associated with mining activities are well above even elevated background levels. As a result, Ecology believes that relying on natural attenuation is not adequately protective in this case.

USFS historical preservation staff have been involved with this project to provide technical assistance regarding any items of historical significance. Two cultural resources studies were also conducted by the USFS in 2011 and 2014 that studied potential effects of the cleanup project on cultural and historic resources. Erosion controls will be implemented around all

areas with proposed excavation to protect aquatic and cultural/historic resources. The USFS plans to install interpretive displays. The SEPA checklist also discusses additional measures that will be implemented to avoid and minimize disturbance of these resources.

C26. "I have concerns about redirecting mine drainage water." (paraphrased)

C27. "I also feel that the main toxic problem at Monte Cristo is the mine drainage."

These comments apply to action on federal land and are subject to CERCLA, please see the USFS response to comments.

REPOSITORY LOCATED ON USFS FEDERAL LAND

C28. "The SEPA checklist fails to list the South Fork (SF) Sauk River as "surface water." Although no mine wastes will be removed from its immediate vicinity, the USFS waste repository where the hazardous material will be deposited is located within 200 feet of this river."

C29. "It is a violation of State law for Ecology to dispose of hazardous materials at a landfill not meeting the requirements of WAC 173-350 Solid Waste Handling Standards and WAC 173-351 Criteria for Municipal Solid Waste Landfills. The planned waste repository is less than 200 feet from the SF Sauk River."

C30. "It is a violation of State law for Ecology to dispose of hazardous materials and potentially dangerous wastes at a landfill not meeting the requirements of WAC 173-350 Solid Waste Handling Standards and WAC 173-351 Criteria for Municipal Solid Waste Landfills. This is particularly egregious because the USFS's hazardous waste landfill is in such close proximity to the pristine South Fork Sauk River. While the USFS may ignore best management practices and State law in the construction of a hazardous waste landfill under the Federal Supremacy clause of the Constitution, the Department of Ecology may not."

C31. "Disposal of hazardous materials in a poorly designed, substandard, and inadequately monitored landfill next to the South Fork Sauk River will likely have significant adverse environmental impact that warrants a determination of significance."

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments.

Furthermore, the USFS, not Ecology, is conducting removal or disposal activities involving the placement of materials into the repository pursuant to CERCLA. Pursuant to the USFS work plan, no materials identified as dangerous waste under MTCA or hazardous waste under RCRA will be placed into the repository.

The “Supremacy Clause” of the U.S. Constitution, Article 6, Clause 2, does not provide the Federal government with a blanket exemption from State law. As noted, however, remedial actions taken pursuant to Federal action are exempt from all Federal, State, and local permitting requirements. Subject to limitations posed by topography at the site, substantive compliance with applicable laws will be achieved. Please also note that municipal waste standards apply only to facilities accepting household wastes.

C32. “In fact, the repository site is likely within the Channel Migration Zone (CMZ) of the SF Sauk River, which actively remodels and relocates its bed nearly every year. The river has washed out the road to Monte Cristo, and before that the railroad, numerous times during the past 120 years. Unfortunately, the DOE has not delineated the river’s CMZ in its SEPA analysis.”

C33. “There has been no determination of the Channel Migration Zone (CMZ) for the South Fork of the Sauk River. State law, WAC 173-350-400(2)(c) requires that no land fill may be constructed within 200-feet of a river. It is obvious that the hazardous waste landfill is closer than 200-feet to the river and may very well be within its CMZ. We feel that the landfill is improperly sited and that no material should be deposited at the site until the proximity issue to the river has been resolved or the landfill relocated.”

C34. “No study or determination has been made of the hazardous materials landfill is actually within the projected Channel Migration Zone (CMZ). The South Fork of the Sauk River has already claimed portions of the County Road into Monte Cristo. Should the road wash out in this area, the stability of the toe of the landfill would be jeopardy. Because the landfill must be maintained in perpetuity, it must be at least 200-feet, measured horizontally away from the South Fork Sauk River and outside the CMZ. This CMZ analysis has not been accomplished. WAC 173-350-400(2)(c) states in part:

“No landfill’s active area shall be located in a channel migration zone as defined in WAC 173-350-100 or within two hundred feet measured horizontally, of a stream, lake, pond, river, or saltwater body...”(Emphasis Added)

Even though the USFS has not determined exactly where the CMZ is, it is clear that the active landfill area is less than 200-feet measured horizontally from the South Fork Sauk River. It would be clearly irresponsible to construct a hazardous materials landfill at this location near a known migrating river.”

See above.

Additionally, for purposes of CMZ identification, “channel migration” is the lateral or downstream shifting of a river channel *within a river valley*. The repository is over 20 feet upgradient of the South Fork Sauk river, and there is no evidence of slope instability at the repository site.

C35. "Knowing the extreme weather and land movement of the mining area, the fact that the extreme weather and land movement was the reason the mines could not sustain their activity in that area, it is incredibly unrealistic to think that concentrating hazardous material into another artificial location within this area will be any real improvement. Is the State going to take on the next 100 years and more of responsibility for maintaining this artificial structure?"

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments. Ecology also notes that monitoring requirements will continue as part of the Long Term Monitoring program and are expected to ensure that materials within the repository are not mobilized.

C36. "The USFS construction documents for the landfill specify a lower liner that is only 1-foot thick native compacted soil with a conductivity 10-4 cm/sec; yet WAC 173-351-300(3) requires the lower liner to be 2-feet thick native compacted soil with a conductivity of 10-7 cm/sec. Please explain why Ecology, as the generator of much of the hazardous waste can allow hazardous materials to be stored in perpetuity in a substandard landfill immediately adjacent to a major river with known flooding problems?"

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments. In addition, please note that Municipal Waste Landfill design criteria are not applicable at this site. See WAC 173-351-010(2)(a). Ecology believes that USFS's repository and the Long Term Monitoring program are appropriately designed to ensure that materials placed into the repository are not mobilized.

C37. "The upper 60-mil liner will be installed on a 2H:1V side slope. There is no bedding below the liner to prevent damage from either construction equipment or damage over time that could allow water into the landfill. The USFS proposes no leachate collection or monitoring system. Please explain why there is no leachate collection system or plan to actively monitor the landfill leachate before the groundwater or Sauk River are impacted."

C38. "Indeed even the repository (e.g. hazardous waste landfill) where the hazardous wastes and possibly even dangerous wastes will be disposed of is improperly designed. There is no lower HDPE liner called out; only a 1'-0" thickness¹ of native soil is called out to act as the lower liner; and the hydraulic conductivity for the compacted soil is specified as 0.0001 cm/sec)². To achieve adequate compaction the native soil must be compacted in horizontal lifts to reduce its hydraulic conductivity not on a slope; yet the proposed hazardous materials landfill design shows the compaction of native soils on slopes varying from 20% to 40%. Soils cannot be adequately compacted on these steep grades. Secondly the compacted soil base must have a hydraulic conductivity of no more than 1×10^{-7} cm/sec, with a compacted native soil thickness of at least 2'-0" thick. WAC 173-351-300(3) states:

"For the purpose of this section, "composite liner" means a system consisting of two components; the upper component must consist of a minimum of 60 mil thickness high density polyethylene (HDPE) geomembrane. The lower component must consist of at least a two-foot (60 cm) layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec." (Emphasis Added)

To put this in perspective, the USFS's hazardous materials landfill lower liner is one-half the required thickness with a hydraulic conductivity 1,000 times greater than allowed by State law (Emphasis Added)."

C39. "The lower liner should be a double liner with positive leachate leak detection. That is, it should have a lower liner of at least two feet of impermeable soil with a hydraulic conductivity less than 1×10^{-7} cm/sec.; with an intermediary layer of drain rock, covered by a properly bedded 60 mil HDPE liner. The double lower liner could then be monitored after construction of the land fill. If the liner were damaged during construction, it would become immediately obvious and timely repairs could be affected."

C40. "Additionally, the upper 60-mil HDPE liner has no bedding to protect it from puncture from sharp objects below and will likely be damaged during construction from heavy equipment tracking over it and fill placement on a 2.5H:1V (40%) side slope. Indeed the hazardous waste repository would not even meet Ecology's design criteria for a Municipal Solid Waste Landfill WAC 173-351. The grinding, hauling, mixing, and aeration of hazardous materials may very well cause them to fail TCLP testing as a dangerous waste. A double lower liner with positive leachate leak detection is required to show that either the upper 60-mil liner or lower compacted native soil liner has not failed."

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments. Ecology also notes that groundwater samples will be collected from monitoring wells surrounding the repository before and following the Removal Action and will continue as part of the Long Term Monitoring program.

Additionally, and as noted, no materials identified as dangerous waste under MTCA or hazardous waste under RCRA will be placed into the repository.

C41. "The USFS proposes to use ASTM D 5084 to determine the hydraulic conductivity³ of the lower liner. However ASTM D 5084 is a laboratory test and not a field test. How will soil be tested in the field to determine hydraulic conductivity? The numbers and locations of hydraulic testing are not specified. If one hydraulic conductivity test fails, how many more tests will be run to assure that the lower liner is in compliance? And of course there is no way to verify that the liner was not damaged while pushing the hazardous materials up a 20% to 40% grade with bull dozers, without positive leak detection. Typically landfills are constructed on flat or near flat ground in horizontal lifts of hazardous materials can be

easily pushed out in front of a bull dozer with sufficient cover to prevent harm to the landfill's lower liner."

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments.

C42. "Even the native soil covering the hazardous waste landfill exceeds MTCA Level A action levels by a factor of 4 or 5 for Arsenic and a factor of 2 for Chromium. Excavating, stockpiling, and replacing this native material on a 2.5H: 1V (40%) slope is certainly going to fail and wash excessive heavy metals into the South Fork Sauk River during this process."

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments.

C43. "The hazardous waste landfill does not even have a design for leachate storage and collection system or an approved monitoring plan shown on the 95% drawings; and even if it did, access to site is limited or impossible from around Thanksgiving to Memorial Day due to snow. There is no design for a leachate collection system, gravity piping or adequately sized holding tank. There is no electrical service to operate pumps or monitoring equipment. How big will the holding tank be? How will it be protected from damage by falling trees, washout, or by vandalism?"

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments.

C44. "Snohomish County regularly closes the Mountain Loop Highway each winter at Deer Creek on the west end and Bedal Creek on the east end over 10 miles away. With no winter access to the site, it is impossible to monitor the repository or any of the excavated mine sites. Yet the repository must be maintained in perpetuity mere feet away from the South Fork of the Sauk River on a steep grade, with no winter monitoring when the hazardous materials landfill is most likely to fail or any ability to respond to a failure in the hazardous materials landfill."

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments.

*C45. "Are there alternatives to excavating a repository, such as building one from steel?"
(paraphrased)*

This comment applies to action on federal land and is subject to CERCLA, please see the USFS response to comments.

DISTURBANCE OF NATURAL AREAS AND MIGRATION OF CONTAMINANTS DURING AND FOLLOWING WORK

C46. Marbled Murrelets and Northern Spotted Owls were not included in the list of threatened and endangered species on the SEPA checklist. While these birds may not be present in the locations where soil will be removed, the access road required for this work was built through designated Critical Habitat for both species. The adverse impacts of this road could be reduced by decommissioning it when the cleanup is completed, and this should be included in the Action Plan. Furthermore, the use of this new road by construction vehicles will harm these threatened species. At the very least, motorized activity on the road should be prohibited between two hours before and two hours after sunrise and sunset to protect nesting Marbled Murrelets during peak feeding times. The SEPA analysis proposes no noise mitigation measures.

It is Ecology's understanding that the USFS' contractor will decommission the temporary access routes located on privately owned property when the interim remedial action is complete. The SEPA checklist states noisy work will only be conducted during daylight hours.

C47. "The SEPA Environmental Checklist prepared by Jason Shira contained less than a dozen short sentences devoted to erosion and sediment control. Jason Shira is not listed on Ecology's CESCL (Certified Erosion and Sediment Control Lead) database and is therefore not qualified to make judgments on or review the adequacy of temporary erosion and sediment controls (TESC's) or lack thereof proposed by the USFS. There is not Stormwater Pollution Prevention Plan (SWPPP) included on the USFS drawings and there are absolutely no erosion controls proposed for the Repository (Sheets C1-C6), the Ore Concentrator (Sheet C7), Comet Mine Site (Sheet C8), the Ore Collector and Rainy Mine Sites (Sheet C9), and the Assay Building (Sheet C10). None of the road designs for access have any TESC measures called out."

C48. At my June 2, 2015 site visit, I confirmed that even a modest silt fence had been improperly installed and was not keyed-in; yet the USFS allowed land clearing to commence in soils with high levels of arsenic and chromium immediately adjacent to the South Fork Sauk River."

C49. "The USFS only proposes runoff cut off trenches above its hazardous materials landfill and mine trailing sites. This will leave acres of exposed ground open to erosion with no protection from erosion in an area with extreme rainfall events.

C50. "(name) confirmed on June 2nd that erosion controls were lacking or improperly installed, even though major land clearing and disturbance had occurred on USFS land. We continue to question the USFS resolve to properly install Temporary Erosion and Sediment Controls and request that a Stormwater Pollution Prevent Plan (SWPPP) be prepared. This is especially critical as the sediment will carry large concentrations of heavy metals."

C51. "Even with properly designed TESC measures, it is difficult to meet the 5-NTU increase in turbidity requirements on construction projects in the Puget Sound lowlands, let alone the steep slopes and high levels of precipitation that can be expected in the Monte Cristo area. Yet in this case, the turbid water will also be carrying a load of hazardous heavy metal with concentrations exceeding Clean Water Act and State water quality requirements."

Portions of these comments apply to action on federal land and is subject to CERCLA. Best management practices for source control and stormwater runoff will be implemented. Silt fencing and runoff controls will be utilized. Sediment control devices will be installed adjacent to the Glacier Creek, Seventysix Gulch, and minor tributaries to control the migration of sediment into surface water bodies. Turbidity monitoring will occur in streams per the U.S. Fish and Wildlife Service (USFWS) Biological Opinion and USFS Removal Action Workplan. If additional erosion controls are deemed necessary, they will be installed by direction from the USFS on-site coordinator.

Work stoppage associated with heavy rainfall events will be assessed and implemented in agreement with the USFS. The USFS' contractor will monitor weather forecasts to identify possible heavy rainfall events. Based on weather forecasts, disturbed areas will be examined to ensure soil and sediment control structures are properly installed. Soil and sediment control structures will be inspected following any heavy rainfall or flooding event for any damage or maintenance needs.

C52. "The DOE also failed to adequately address the effects of constructing a road in the Glacier Creek riverbed. Trucks will be transporting hazardous materials across the gravel bed of Glacier Creek to access both the temporary log bridge and the Rainy mine. This will result in sedimentation as well as pollution of this Bull Trout habitat from the toxic excavated material (which may spill from uncovered transport trucks) and the trucks themselves, which may leak petroleum products or other toxic materials as well as tracking contaminated soil into the riverbed."

C53. "(name) confirmed with Mr. Gibbens that approximately one-half mile of road will be constructed in the Glacier Creek River Bed. This will have a much greater sediment impact than the currently proposed perpendicular Glacier Creek crossing. It is requested that the impact of constructing a road in the creek bed be evaluated and mitigated."

C54. "The SEPA Checklist fails to identify the road construction impacts that will occur in Glacier Creek to construct a road into the Rainy Mine site. This road will be constructed in flowing water sections of Glacier Creek. Joe Gibbens confirmed on June 2, 2015 that the road into the Rainy Mine will be constructed up the Glacier Creek riverbed. This impact was not identified in the SEPA Checklist.

The Glacier Creek crossing and most of the access route along Glacier Creek is located on USFS federal land is subject to CERCLA, please see the USFS response to comments.

The perpendicular Glacier Creek crossing is still planned. A portion of the temporary access route will be located on the dry portion of Glacier Creek stream bed. Care will be taken to ensure that no material is spilled from the truck moving across the temporary Glacier Creek crossing, such as only filling the trucks 2/3 full or isolating the material with tarps. Equipment working at the site will be inspected to ensure no engine or other leaks of petroleum products are occurring. Using this route is preferred to the alternative of removing additional vegetation.

C55. "The Interim Action Plan proposes revegetation of disturbed areas. However, it is not clear how this will be effectively accomplished, given that the work will be completed in the fall, after the end of the short growing season at this elevation. This means that disturbed areas will be exposed to erosion from the heavy rainfall that occurs during the fall and winter in this area. This will, in turn, result in the naturally occurring heavy metals in exposed soils washing into Glacier Creek and the SF Sauk, affecting their populations of threatened Bull Trout as well as human health."

C56. "Removal of mature trees and vegetation will expose stabilized soils and hazardous materials to massive erosion, including soils that have naturally occurring high levels of heavy metals. Yet the significant issue of soil erosion in an area that receives approximately 140-inches of precipitation per year was barely addressed. The USFS has significantly underestimated the rainfall and erosion potential in this area."

C57. "There are no drawings or planting plans provided for how the excavated sites will be revegetated to prevent erosion. Likely it will be late fall before any attempt can be made to stabilize the excavated sites when daylight hours are short. Grass seed germination and plant growth is nil during the early frosts that occur at Monte Cristo starting in early-September. In turn, massive amounts of sediments containing naturally occurring heavy metals will wash into Glacier Creek and the South Fork Sauk River with their populations of endangered Bull Trout."

All disturbed areas will be re-contoured and prepared for revegetation in accordance with Section 02801 of the Technical Specifications in the USFS Removal Action Work Plan. Access routes will be re-contoured for proper drainage, ripping to 12 inches, seeding, and mulching. Potted rooted trees, a mix of western hemlock and Pacific silver fir will be planted at the terminus of the Rainy Mine access route. A certified weed free straw mulch will be applied to control erosion during plant establishment.

Native plants and shrubs adapted to the microclimate and soils near Monte Cristo can germinate and spread quickly, regardless of the soil quality. However, rates and composition of succession will vary, depending on the Site.

Access route portions that are within the ordinary high water line of Glacier Creek, and not currently vegetated, will be decommissioned by re-contouring of the stream channel to pre-construction conditions.

C58. "Again in winter months Dec-May there will be no monitoring or any ability to affect remedial repairs."

The Site will be monitored during accessible periods, during low snowpack or during low avalanche forecast conditions via snowmobile by the USFS. Erosion would not be anticipated when the Site is covered under deep snowpack. Therefore, the Site will not be visited during these conditions.

C59. "We are concerned that dump trucks driving through previously dumped loads of hazardous materials will collect and distribute heavy metals out onto the County Roadway, which is the primary access for hikers and bicyclists into Monte Cristo. The SEPA checklist failed to identify this impact or potential hazards to the public after the project is completed. Please address this concern."

This comment applies to actions on federal land and is subject to CERCLA, please see the USFS response to comments. Care will be taken to ensure that no material is spilled from the trucks, such as only filling the trucks 2/3 full or isolating the material with tarps.