

**Mammoth Mill Site Cabin Area CERCLA Investigation Status Update Tract Meeting
Mammoth Lakes Welcome Center Auditorium, November 16, 2019**

Informational Meeting Overview and Responses to Questions

Meeting began at 10:00 am.

USDA Forest Service Attendees:

Tammy Randall-Parker, Forest Supervisor

Gordon Martin, District Ranger

Noelle Graham-Wakoski, Regional OSC

Dennis Geiser, Regional Environmental Engineer

Colleen Garcia, Minerals Program Manager

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Meeting attendees present (Names of call-in attendees not captured):

Carolyn Morrow (29), Joe Nunez (5), Bruce & Catherine May (4), Michael Rowen (29), Bob Young (9), Lynda Salcido, Zachary Hite, Alison & Steve Depew (6), John Wentworth, Jennifer Kreitz, Joe & Pam Nunez (5), Clint Hyde, Mark Carney (Reicker, Pfau), Frank Fish (10A), Alison

Welcome and Introductions

District Ranger, Gordon Martin and Forest Supervisor Tammy Randall-Parker facilitated the meeting introductions.

CERCLA Updates

On-Scene Coordinator (OSC), Noelle Graham-Wakoski presented an overview of the CERCLA (Comprehensive Environmental Response Compensation and Liability Act) process, information and her role as OSC. The OSC presented the Mammoth Mill Site cabin area CERCLA Site investigative findings to date. Input was provided by Regional Environmental Engineer, Dennis Geiser along with some of the implications of the recent findings, a status update and the next steps. Information was shared pertaining to a Preliminary CERCLA Removal Action Alternatives Analysis for the Mammoth Mill City Cabin Area in order to reduce human exposure to Chemicals of Concern from heavy metal contaminated soil within the Cabin Area, including Limited Use Controls for each alternative and estimated costs for the action.

Shared Handouts

District Ranger Gordon Martin sent power point presentation, maps and updated fact sheet via email to all cabin owners before the meeting on 11/16/2019. These hard copy items were also available at the meeting and then posted onto the Forest website following the meeting: <https://www.fs.usda.gov/detail/invo/home/?cid=FSEPRD588929>

Meeting Notes and Follow-up

Throughout the meeting, Minerals Program Manager Colleen Garcia captured questions and comments that were raised at the meeting- via handwritten note taking. These questions, comments and answers are provided below. Additional information and options will be shared with cabin owners and interested parties as information becomes available.

Meeting ended about 1:30 pm.

A post-presentation discussion ensued to address Questions and Answers:

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Meeting Clarifications/Responses to Questions

- 1. Who is the contractor?**
 - a. ERRG (Engineering/Remediation Resources Group, Inc.)
- 2. Why was the focus of the sampling only on soil?** All potential pathways (air, soil, water), scenarios and receptors (Cabin occupant, recreational user and ecological) evaluated and the most relevant regarding risk exposure was soil based on the current and anticipated future site use. Impacts to human health were the governing risk drivers and the presence of heavy metals in the soil became the focus of the investigation in the Cabin Area.
- 3. What is the baseline for Mercury and its cause to health complications?** Mercury is one of the primary Chemicals of Concern (COC). The cleanup threshold is based upon a Risk Based Concentration (RBC) developed for a cabin residential occupant as the primary receptor through the Human Health Risk Assessment prepared by a Forest Service's environmental contractor. The cleanup threshold for mercury at this site was determined to be 31 milligrams per kilogram (mg/kg) based upon the RBC. Mercury is noncarcinogenic, so the risk from mercury is associated with noncancer (those that affect health systems such as the liver, kidney, nervous system, etc.) risk-based concentrations.
- 4. Is it time critical for the Millsite?** We are still under a CERCLA Time Critical Removal Action for the Mill site area.
- 5. When was the sampling completed before the April 2015 TM?** The sampling for the April 2015 Technical Memorandum for the PA/SI was completed in July 2014.
- 6. When was the 2017 meeting?**

May 15, 2017.
- 7. Why is this site a big deal compared to other sites that are big contaminated site?**

The Forest Service manages National Forest lands. At the Mammoth Mill site there are known contaminants and that are on National Forest lands with a residential occupancy.
- 8. Do you hire independent contractors and how to you know they are non-bias?**
 - a. The EPA uses these same contractors that the Forest Service uses.
 - b. There is a technical evaluation board and process to evaluating a contractor. The FS requires multiple forms of work plans for review and approval prior to the initiation of field work, including sampling, health and safety, storm water pollution prevention, erosion control, waste management and construction monitoring plans. Inspectors are on site to ensure that cleanup activities are conducted in a manner that is protective of human health and the environment and do not spread contaminants further.
 - c. The Forest Service prescreens contractors for qualifications and capabilities and when a Task Order is solicited. Those qualified contractors are then evaluated using a Best Value process whereby a number of factors are rated including: their specific technical proposal, past performance, past experience and finally, cost.
 - d. Third party contractors are occasionally used to perform or assist with contract inspections and quality control
- 9. Can you send out the legend copies of the two maps (handouts)**

Yes.
- 10. The map with the dotted purple is it defined as a sampling area or what is this area?**

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The figure titled “Cabins Area Definition” has a dashed purple line and this denotes the limits of the present Cabin Area that is being investigated.

11. Why doesn't this include my cabin (in reference to Cabin 29 on the east side of the creek)?

Cabin 29 and other areas east of the creek are not down-gradient of the Mill Site and were not initially suspected as having contaminants.

12. Explain what is the diversion ditch

The diversion ditch is the existing ditch/trench leading from the mill to the unnamed tributary/creek. Its function was likely to divert water from the mill back to the creek as records show that the mill water wheel was powered by water diverted from Twin Lakes along a flume. It is shown on the figure as a solid blue line.

13. How did this number change from 100 to 5 (days/year of allowable occupancy to maintain a low human health risk)?

The October 2018 findings provided additional data as to the levels and extent of site contaminants. A refined Human Health Risk Assessment for cabin occupants evaluated the updated data against a no removal action alternative and the findings revealed that the exposure frequency would need to be limited to 5 days per year.

14. Why are people on site working without masks onsite?

Forest Service contractors who have been performing site investigation activities were wearing (Gil-Air) personal air monitoring pumps that are attached to an air sample cartridge container via tubing. It is placed in the worker's breathing zone to evaluate worker exposure in accordance with NIOSH Manual of Analytical Methods. Air cartridge samples are rush analyzed by a qualified California laboratory certified under the Environmental Laboratory Accreditation Program for specific contaminants. In all cases, the results did not detect airborne contaminants and therefore no respirators were required on site.

15. What are the Arsenic background levels? What about the naturally occurring Arsenic?

The site-specific background level for arsenic at this site was 13.3 mg/kg. Arsenic levels tend to be much higher throughout the state of California than the EPA standard. Because the EPA does not require cleanup to levels below background, the cleanup goal for arsenic is 13.3 mg/kg based upon this site-specific value.

16. What were these exceedances levels?

- a. Mercury and arsenic were the Chemicals of Concern (COC) for this site and the threshold Risk Based Concentrations (RBCs) that were developed for the site were 31 mg/kg for mercury and 2.9 mg/kg for a cancer endpoint for arsenic and 1.4 mg/kg for a non-cancer endpoint. As the background concentration for arsenic was determined to be 13.3 mg/kg, the site background level was selected as the arsenic cleanup goal as CERCLA does not require cleanup to below site background levels which are naturally present at a site.
- b. These levels are not established by the State because they are based on site specific criteria, although State (Cal EPA) and Federal (EPA) criteria is utilized as part of the Human Health Risk Assessment which develops the RBC.

17. What about contamination in the neighborhood downhill or across the road?

Lab samples taken just beyond the boundary shown on the Extent of Heavy Metals Impact Figure did not exceed the cleanup goals and therefore did not reveal contamination beyond the established Risk Based Concentrations.

18. What is the yellow blobs on the map?

In the Cabin Area Definition figure, the tan rectangles are the existing cabins. In the Heavy Metals Extent figure, the tan rectangles are the existing cabins and the yellow circles are locations where sampling occurred during site investigations.

19. What is the purple area on the hand out?

The purple area in the Heavy Metals Extent figure is the heavy metals-impacted soil area.

20. Every year there is new tests that aren't remotely definitive. Why do we need more testing? What results do we need to get?

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The contamination at the site was not expected to be as widespread and far from the Mill site source as it is. The October 2018 sampling was focused on defining the horizontal and vertical outer boundaries/extent of contamination on the west side of the creek, which was accomplished. Currently, there remain data gaps immediately around and beneath each cabin as well as the area on the east side of the creek. Eliminating data gaps will assist in more clearly defining the interior limits of contamination and to select an appropriate removal action alternative.

21. What do the slide 23 colors mean? Red is what?

Power point slide 23 is the Hot Spot Area slide. The legend for this slide will be included in the Figure 12, Hot Spot Removal Areas for the in-progress report. The different colors depict different areas of contaminant removal, each with their own corresponding depth of proposed excavation. This figure shows one of the preliminary Alternatives considered for a focused removal of the contaminants.

22. What is that unnamed tributary and could it transport natural Arsenic and what about the east side of the creek? By ‘unnamed tributary’, we are referring to the creek shown in the figures running parallel to the Mill City tract access road. Surface waters such as these can transport heavy metals, including arsenic. The east side of the creek was minimally sampled, and initial sampling revealed different chemical characteristics than the west side of the creek and therefore needs further evaluation.

23. Are there other stamp mill sites that point to other sources for the high Arsenic? The high arsenic on the east side of the creek may come from a number of sources, including imported by man, hydrothermal influence and more. The source is uncertain at this time.

24. What about the growing vegetation and its uptake into the vegetation? There would need to be sampling and analysis of the vegetation to conclusively determine whether contaminant uptake has occurred.

25. The trees have grown on contaminated soil and the trees were cut down for fuel wood and sold what about that contaminated wood and if it is used-burned?

- a. So Cal Edison was involved with the thinning of the trees and District Ranger Gordon Martin has it resolved and it was a miscommunication with So Cal Edison. There are still piles of logs for the private contractor and some were taken and removed and now are halted.
- b. Cutters will have proper PPE and the trees are So Cal Edison’s property.

26. Are they going to test the wood?

They (SCE) have been advised of the wood issue. There are no plans to test the trees at this time.

27. Why is the closure area at the road and not where sampled?

When issuing a Forest Closure Order at a CERCLA site, it is necessary to maintain a buffer of clean area that is not contaminated between the public and the restricted area of contamination. Further, the road is a natural barrier to assist with administration of the closure.

28. What about a fence?

The North East boundary access and pathways were addressed with a road gate.

29. Within the gate does fire and law enforcement have access and patrol the area?

Yes

30. What is the effect of capping on trees? Capping will have no effect on trees, however if excavation of contaminated soil is necessary, then the trees in that immediate vicinity would need to be removed, unless root and tree protection measures are taken.

31. Where are the protected trees? For this preliminary alternatives’ analysis, trees with a DBA of 24 inches and greater were selected for protection.

32. Will it take 30 years to clean up the site?

No, the 30 years in the cost analysis was used as a standard timeframe projection for periodic costs based upon Office of Management and Budget Circular guidance for federal facility sites.

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33. **Are there issues of natural regrowth of the trees?** If contaminants are capped in place, larger vegetation such as trees would be restricted from regrowth due to the potential for a breach in the protected cap by tree overturning and roots displacing contaminated materials toward the surface.
34. **Will the area where the trees are removed receive replanting?** If tree removal is performed to accommodate encapsulation of contaminants, options would include natural regrowth of grasses and smaller vegetation or seeding for native smaller vegetation. If tree removal is performed to excavate and remove contaminants, there are no restrictions concerning re-vegetation.
35. **Will the offsite area be fenced with signage?** No.
36. **When is the Forest deciding which alternative to use?** Following additional site investigative sampling where data gaps exist.
37. **What are the timeframes?** Slide 37 on the power point presentation addresses anticipated timeframes.
38. **Why was the testing not done all at one time?** The widespread and distant contamination was not expected and therefore not planned or funded during contract solicitation activities. Each phased site investigation activity required additional funding and specific contractual scopes of work.
39. **When is the testing going to happen?** It is uncertain at this time but will be dependent on funding and Regional priorities.
40. **Why did DOJ go after the Millsite and not the Cabin Site?** The PRP search was limited to the Mill Site which was the known source of contamination. At the time enforcement began against Union Bank, contamination in the cabin area was unknown. Source control was the Forest Service's priority.
41. **Why is Union Bank not a PRP for the cabin site?** Union Bank has not yet been determined to be a PRP for the Cabin Area because a PRP search has not been performed for the Cabin Area.
42. **Can the cabin owners have a buyout option?** A letter has been sent out to all cabin owners regarding Cabin Lease Relinquishment option discussing this.
43. **Isn't a cabin buyout a cheaper alternative?** See answer to #42.
44. **Mr. Carney's remaining questions have not been answered from his January 2019 letter. Why?** (What specific questions remain to be answered?)
45. **Why were they told initially that this process was a maximum of two years?** When the Removal Action Memorandum was issued, the extent of contamination was believed to be confined to the Mill area only.
46. **Comment – question do you realize our leases are up soon? Will you just not renew the leases?** This is unknown at this time.
47. **Why aren't the cleanup of the Cabins and Millsite done concurrently?** The Mammoth Mill Site has had a PRP Search completed and the Cabin Area has not. USDA mandates an enforcement first policy prior to the utilization of appropriated funds to address site contamination.
48. **Can we relocate the cabins (to the other side of the creek)? If so where? Campground? Can you see if there are other FS land holdings that the Cabins can be moved on to?** These options are currently being explored by the Forest Service.
49. **Is the campground a clean site? Can you see if cabin 29 is on clean site? –east side of the tributary contamination.** Initial sampling indicates heavy metal contamination. Additional site investigation is needed in this area.
50. **Why is Cabin 29 not included in the remediation/buffer area?** See answer to #22. Cabin 29 and the area on the east side of the creek is included in the Forest Closure area.
51. **Why is no one asking to test the humans – the Cabin owners?** The Forest Service does not perform human testing as part of CERCLA investigations.
52. **Can we ingest breathe and have skin contact with the contaminants when there is snow over it?** There are many variables that would come into play for this condition and therefore, this cannot be answered as is.

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- 53. Mark Carney – Are we 15-20 years away from cleanup?** This is unknown as there is additional data needed prior to final alternatives analysis in the form of an Engineering Evaluation Cost Analysis (EECA).
- 54. Who pays to move the cabins?** Until a thorough legal analysis has been conducted, any answer would be purely speculative.
- 55. When the leases are up will FS just fence it and stop the use of the site?** This is unknown at this time.
- 56. Are there any other funding sources?**
Funding is to be initially sought from a PRP. If there are no viable PRP's determined, then funding is sought competitively from USDA National sources or possibly from the EPA under certain conditions.
- 57. Since Cabin 29 came back hot then is it from a natural source?** See answer to #23
- 58. Can the FS create an actions executing schedule?** The timeframes for implementation can vary depending on PRP Search findings. Also, due to the fact that all Forest Service response actions are subject to the availability of funding, the timing of such actions is unpredictable and cannot be expressed with any certainty.
- 59. Will it take 4-7 years to get to a removal action?** This depends on PRP Search outcome and potential competitive funding requests.
- 60. What are the limits of the FS funding for cleanup?** See answer #56
- 61. If they don't clean up the site are the cabin owners required to remove the cabins?** All options are being explored at this time.
- 62. Can they have a rock layer instead of a moonscape?** Final surface condition will depend on the Removal Action alternative selected.
- 63. When will FS conduct a Hg vapor analysis under the cabins?** If funding is available, the next phase would be sampling around and beneath the cabins.
- 64. Are we liable for cabins if we own the cabins?** Cabin permittees/owners are under contractual obligations pursuant to their permits. Additionally, under CERCLA Section 107, current owners may be liable parties for contamination found on their properties subject to certain limited defenses. However, at this time there has been no determinations as to cabin permittee/owner liability for contamination located on their respective properties.
- 65. Can they give back their deed and not be liable?** See response to #64 above.
- 66. In 2028 the leases are up – due and this is 8 years from now so what is a realistic timescale for the FS decision about the cabin options?** It is unknown at this time. See response to #58.
- 67. Is there a clause that if we don't remove the cabins the FS will let them return to their natural state by deterioration?** All improvements must be removed at the Forest Service discretion.
- 68. Are the cabins owners stuck with the cabins and liable for removing them or can they be bought out?** See response to #64 and #67 above.
- 69. If the FS is going to execute a clause of termination for the leases, then to they have to remove the cabins and/or do they have to pay the cost of the cabin removal?** See response to #64 and #67 above. Also, reference lease relinquishment option letter recently sent to Cabin owners.
- 70. Are there any consequences for the cabin owners if they walk away from the cabins?** There are contractual obligations under the terms of the special use permits and potential CERCLA liability for contamination found on the property.