



Klau / Buena Vista Mines Superfund Site

U.S. Environmental Protection Agency

Region 9

San Francisco, CA

San Luis Obispo County, California

November 2012

Update on Site Activities

As part of our regular efforts to keep the community informed on what is happening at the Klau/Buena Vista Mines Superfund site, the U.S. Environmental Protection Agency (EPA) is sending this fact sheet to our list of interested parties. We discuss below what has gone on at the site over the past few months and what activities are upcoming.

Site Areas

As you may recall, the site has been divided into three areas of study based on location and the nature of the problem:

- **Operable Unit 1 (OU1)**—the 320 acres of the mine property itself (Objective: to clean up and control the source of the contamination)
- **Operable Unit 2 (OU2)**—the 6 ½ miles of Las Tablas Creek extending from the mine site to the Las Tablas Creek Ranch Reservoir (Objective: to fill data gaps to better determine cleanup options for this source of contamination)
- **Operable Unit 3 (OU3)**—Lake Nacimiento (Objective: to determine how methylmercury moves through the lake and into fish and wildlife)

Where We Are With Each Operable Unit

OU1

Following review by the regulators, the Remedial Investigation (RI) Report, which details the level of contamination and where it is located, is now final. The RI Report summarizes the results from sampling soil, sediment, surface and groundwater, plants, invertebrates, field mice and fish. In the wet and dry seasons we collected over 100 samples of soil and sediment and over 200 samples of surface and groundwater. Those samples indicate that the site has heavy metals contamination, primarily from

mercury, methylmercury, thallium and nickel, as a result of past mining activities. These contaminants pose potential risk to humans who are on site or consuming fish affected by the site as well as to plants and animals. The report found eight areas of the site that should be evaluated for cleanup: mine waste piles, retort areas, mine shafts and adits, streams such as the Klau Branch and the drainage from the site to the North Fork of Las Tablas Creek, the BLM reservoir and Klau Pond. We are now ready for the next stage, the Feasibility Study, which will look at options for addressing the contamination.

OU2

The Remedial Investigation Report for OU2 has also been reviewed and completed and areas needing further investigation identified. A work plan to collect that additional data has been drafted and will be provided to the regulators and the community in the next few months. The RI Report found that although much of the contamination from the mine has migrated downstream through the drainage stream, the majority of it has been captured by the Las Tablas Creek Ranch Reservoir before flowing into the Las Tablas Creek Arm of Lake Nacimiento. Since Las Tablas Creek Ranch Reservoir was built, approximately 98,000 cubic yards of silt with mercury, methylmercury, chromium and zinc have been deposited, filling up the reservoir. These contaminants pose a potential risk to humans consuming fish and ecological receptors such as plants and animals.

The findings indicate that further investigation is needed to determine possible remedies:

1. How much sediment and contamination normally flows through the watershed and in what areas?
2. How much of the sediment and contamination is normally trapped by Las Tablas Creek Ranch Reservoir?
3. Will Las Tablas Creek Ranch Reservoir continue to trap the contaminated sediment or clean itself up over time once the contaminant releases from the mine are stopped?

Sampling to answer these questions is expected to begin next year.

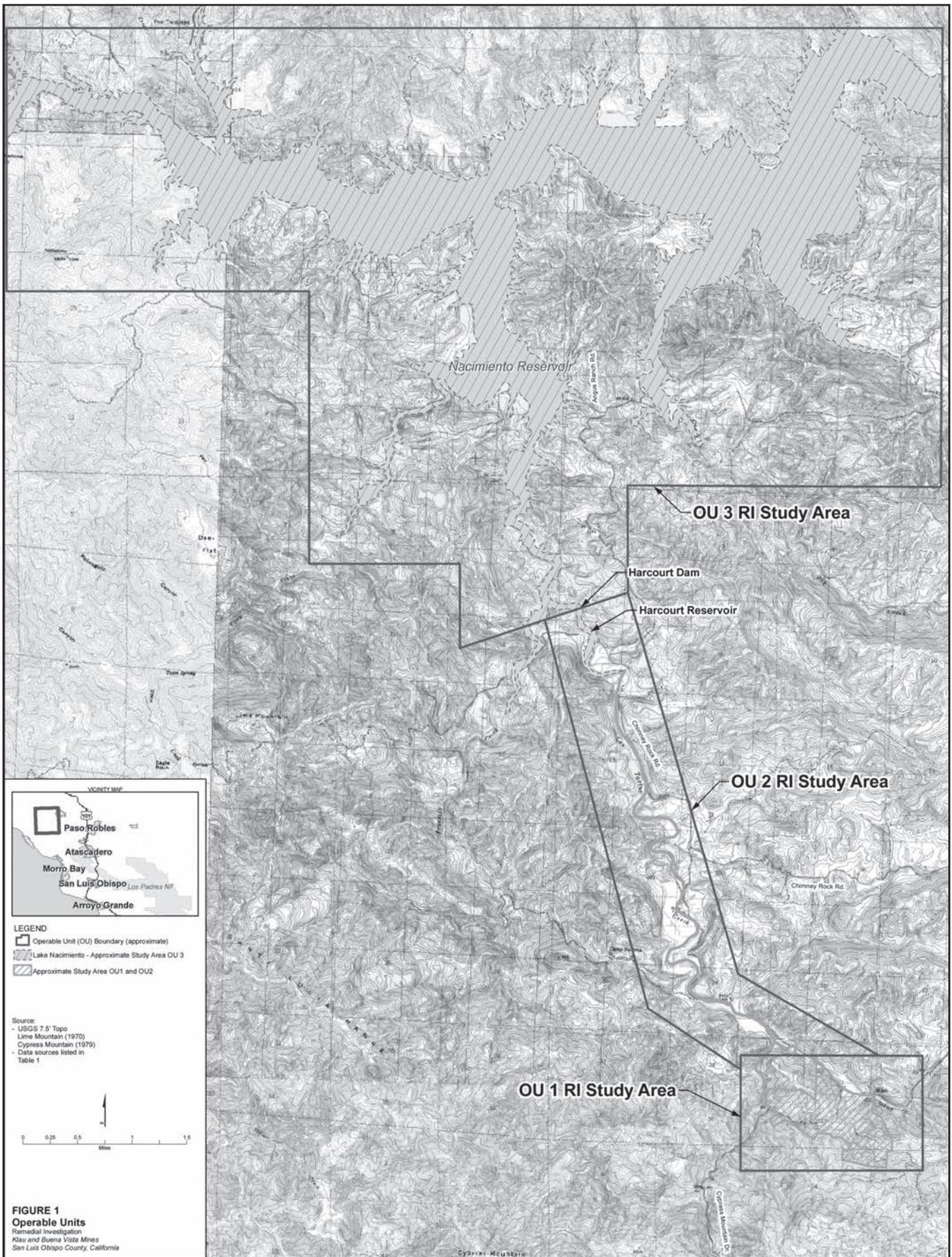
OU3

The draft sampling plan for the Remedial Investigation of Lake Nacimiento is in final preparation and will be available in the next month or so. From past sampling by other regulatory agencies, it is known that the fish in Lake Nacimiento contain methylmercury. However, the source locations for the mercury and methylmercury and how

it moves through the lake system in different seasons is unknown. To be able to determine the nature and extent of the contamination and how to best address it is a key question that the Remedial Investigation needs to answer. Due to the complexity of investigating a large and complex lake system, EPA will be conducting the investigation in a series of phases over the next two to three years.

- The first phase will probably start next summer and will consist of a bathymetric survey of the bottom of the Las Tablas Creek Arm of the lake to better understand where contaminated sediment may have been deposited or could be eroded by winter storms. EPA will also perform water column profiling at approximately seven locations in the lake, both in the Las Tablas Creek Arm and the main stem of the lake, to better understand the chemistry of the lake water over both wet and dry seasons and how it affects the distribution of mercury and methylmercury. Water samples and measurements will be made monthly from the surface to the bottom in five-foot increments. This sampling will occur in the July to February timeframe.
- The second phase will use the results from the first phase of sampling to select locations for more detailed sampling of the surface and the water column. Additional sampling of bottom sediment will be conducted as well as sampling key biota (algae, diatoms, small insects) and the fish that feed on these biota. EPA is also funding a separate study with the U.S. Fish and Wildlife Survey and the U.S. Geological Survey to sample bird feathers, eggshells and fish-eating birds such as grebes to assess the potential impact from the methylmercury to eagles and condors.
- A third and final phase would be an investigation of areas of potential contamination along with biota in the lower portions of Las Tablas Creek and in upper shoreline sediments around the lake.

The information from these investigations should help us determine how the mercury and methylmercury occur and move through the lake system and how to best address it.





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For More Information

Please contact either of the two EPA staff listed below if you have questions or concerns about the Klau/Buena Vista Mines project:

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