

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**RESOLUTION NO. R6T-2003-0014**

**Adopting a Mitigated Negative Declaration for  
Lime Neutralization of Acidic Drainage at Leviathan Mine, Alpine County**

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Whereas, the California Regional Water Quality Control Board, Lahontan Region (Regional Board), finds:

1. It is the responsibility of the Regional Board to regulate the activities and factors which affect or may affect the quality of waters of the region in order to achieve the highest water quality consistent with the maximum benefit to the people of the State, and
2. The Water Quality Control Plan for the Lahontan Region was adopted in 1995. This plan identifies the need to protect the surface and ground waters of the Carson River Hydrologic Unit, and
3. Leviathan Mine is an inactive sulfur mine on property presently owned by the State of California and under the jurisdiction of the State Water Resources Control Board (SWRCB). The mine is located in Alpine County, approximately six miles east of Markleeville, California, and
4. Degradation of water quality in Leviathan and Aspen creeks occurs as a result of the discharge of acid mine drainage (AMD) from Leviathan Mine. AMD from Leviathan Mine can be characterized as a dilute sulfuric solution containing dissolved metals, including iron, aluminum, arsenic, nickel, and copper, and
5. In 1984, the SWRCB acquired ownership of the mine. The Regional Board completed the Leviathan Mine Pollution Abatement Project in 1985. The pollution abatement system captures and diverts surface runoff to reduce percolation into site soils; thereby, reducing the volume of AMD generated on site. In addition, the abatement system captures and evaporates AMD from underground mine workings in a series of lined evaporation ponds, and
6. The evaporation ponds were intended to reduce the volume of AMD discharged to Leviathan Creek and to prevent the discharge of AMD until the flow in receiving waters (Leviathan Creek) was expected to provide the greatest attenuation. Following completion of the 1985 project, discharge of AMD from the pond system (pond overflow) routinely occurred during the spring months when pond inflow exceeded the storage and evaporative capacities of the pond system, and
7. To prevent pond overflows, the Regional Board assessed a treatment process that enabled the treatment and discharge of treated pond water during the summer months, as a means to increase pond holding capacity for the subsequent winter and spring months. The

Regional Board assembled a treatment system during the 1999 field season and tested the process at full-scale during the 1999 and 2000 field seasons. The field season at Leviathan Mine typically runs from mid-June through mid-October. The Regional Board successfully operated the treatment system during the 2001 and 2002 field seasons and the ponds have not overflowed since initiation of the Regional Board's summer treatment program in 1999, and

8. The process employed by the Regional Board for the treatment of AMD contained in the pond system can be described as lime neutralization. In this process, a source of alkalinity, such as lime (calcium hydroxide), is mixed into the AMD. The addition of lime causes a series of beneficial chemical reactions including an increase in pH and the precipitation of dissolved metals contained in the AMD. The precipitated metals are then separated from the solution, and the final product is a nearly metal-free effluent with near neutral pH (7.0), and
9. In June 2000, the Regional Board certified a Negative Declaration for the treatment of AMD in the pond system by means of lime neutralization. A number of substantial changes to the project described in the June 2000 Negative Declaration are proposed for the 2003 and 2004 field seasons. The most significant change is the proposed treatment of AMD emanating from the Channel Under Drain (CUD). The CUD comprises a network of rock filled trenches and perforated pipes that carries acidic drainage to the downstream end of the Leviathan Creek concrete channel, and
10. Although the proposed changes are not expected to involve new, significant environmental effects or substantially increase the severity of previously identified effects (as presented in the June 2000 Negative Declaration), Regional Board staff have determined that the proposed subsequent negative declaration is appropriate, and
11. Mitigation measures have been incorporated into the proposed project that bring the level of all potential environmental impacts to below a level of significance, and
12. The Regional Board assumes lead agency responsibility pursuant to Section 15051 of the California Environmental Quality Act (CEQA) Guidelines, and
13. Regional Board staff prepared a Mitigated Negative Declaration for the proposed project, pursuant to Section 15070 et seq. of the CEQA Guidelines, and
14. Regional Board staff circulated the Draft Mitigated Negative Declaration for public review through the State Clearinghouse and through direct mailing to interested parties, and properly noticed the Draft Mitigated Negative Declaration in newspapers of general circulation, and
15. Regional Board considered all comments received, and
16. The Mitigated Negative Declaration identifies potential impacts on soils, air quality, hazardous materials, water quality, and noise. Regional Board staff have incorporated

mandatory mitigation measures into the proposed project to reduce these impacts to less than significant levels for all impacts, and

17. There is substantial evidence in the record that the certification of the Mitigated Negative Declaration for Lime Neutralization of Acidic Drainage at Leviathan Mine, as mitigated, will have no adverse impacts on the environment.

**THEREFORE BE IT RESOLVED:**

1. The Draft Mitigated Negative Declaration constitutes a complete and technically adequate environmental document in compliance with the California Environmental Quality Act, and
2. The Regional Board received no comments on the draft Mitigated Negative Declaration.
3. The Regional Board finds, on the basis of the initial study, and the Mitigated Negative Declaration, that there is no substantial evidence that the project will have a significant effect on the environment, and
4. The Mitigated Negative Declaration is hereby certified, and
5. That, upon certification of the Mitigated Negative Declaration by the Regional Board, Regional Board staff shall file a Notice of Determination with the Office of Planning and Research in accordance with Section 15075 of the State CEQA Guidelines, and
6. The Regional Board hereby adopts a monitoring and reporting program (pursuant to CA Public Resources Code § 21081.6) that will assure compliance with mandatory mitigation measures during project implementation. The monitoring and reporting program is detailed in the Mitigated Negative Declaration prepared for this project.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on March 12, 2003.

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HAROLD J. SINGER  
EXECUTIVE OFFICER