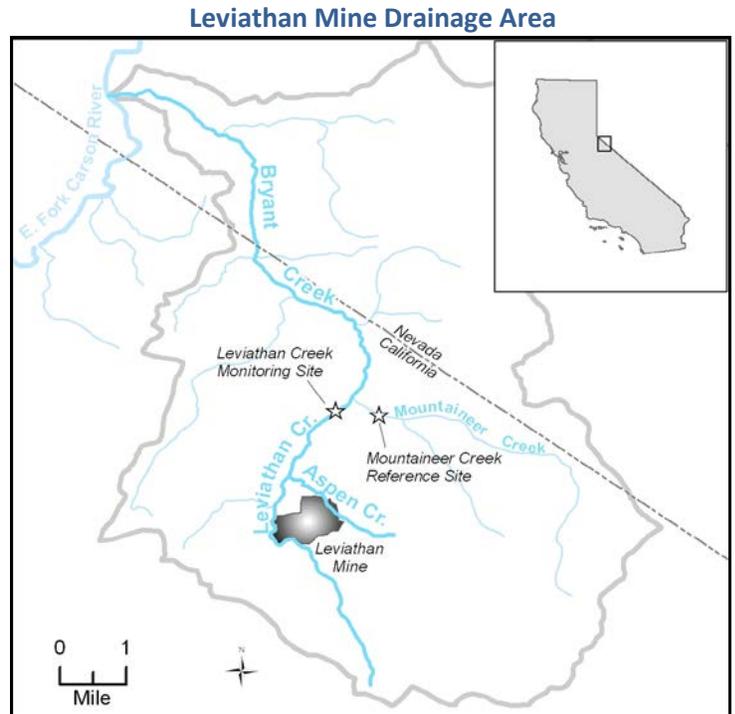


Total Maximum Daily Load Progress Report		Leviathan, Aspen, and Bryant Creeks - Metals
Regional Water Board	Lahontan, Region 6	<b>STATUS</b> <input type="checkbox"/> Conditions Improving <input type="checkbox"/> Data Inconclusive <input checked="" type="checkbox"/> <b>Improvement Needed</b> <input type="checkbox"/> TMDL Achieved/Waterbody Delisted
Beneficial uses affected	COLD	
Pollutant(s) addressed:	Metals	
Implemented through:	Water Board Remedial Actions and CERCLA	
Approval date:	N/A	

**TMDL Summary:** Leviathan Mine is a former sulfur mine and current federal Superfund site located in the Sierra Nevada Mountains in Alpine County, California. The State acquired the mine in the early 1980s to address water quality problems caused by historical mining. In 1985, the Water Board completed construction of a pollution abatement project to address certain water quality problem areas. Leviathan and Aspen Creeks flow across the mine site, join below the mine and discharge to Bryant Creek. All three creeks are impaired for metals. USEPA has required the Water Board to continue abatement activities and required Atlantic Richfield Company (ARCO) to conduct cleanup actions and perform a Remedial Investigation / Feasibility Study for the Site. A TMDL will not be developed, instead this impairment is being addressed by the CERCLA process. A Remedial Investigation / Feasibility Study is underway, with a final remedy expected to be identified about 2015.



### Water Quality Protection Measures Implemented

- Channelization of Leviathan Creek to separate creek flow from the mine waste and construction of five lined ponds to capture and evaporate acid mine drainage.
- Recontouring former mine pit and installing stormwater conveyance structures to reduce infiltration through the mine waste and revegetation of certain areas.
- Year-round collection and seasonal treatment of two AMD sources; seasonal collection and treatment of two other AMD sources.
- Year-round bioreactor treatment operation on AMD source to Aspen Creek.

### Water Quality Outcomes

- Bioassessment shows trend of improving water quality downstream of Leviathan Mine, especially when all major sources of AMD are captured, but water quality is not sufficient to sustain the cold, freshwater habitat beneficial use.
- Metals and TDS concentrations are reduced in the creeks through capture and treatment of AMD.

### Trends in Diversity of Bottom Dwelling Invertebrates at Leviathan Creek Compared to Reference Condition

