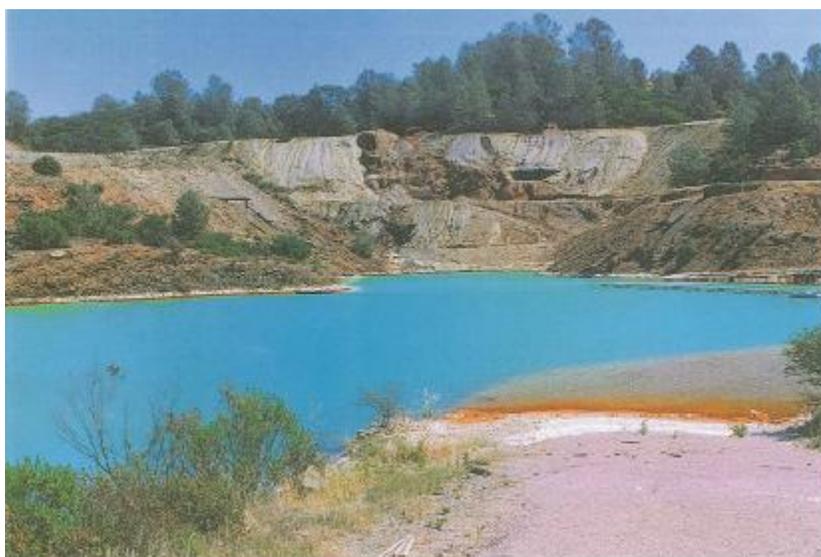


DTSC's Abandoned Mine Lands Hazard Assessment and Remediation Process

Once an AML site has been identified and is under DTSC's oversight, hazard assessment typically begins with a site investigation (a preliminary endangerment assessment) to determine the nature and extent of contamination resulting from past mining activities. This includes identifying:

- Hazardous substances such as arsenic, mercury, lead, other metals and acid mine drainage.
- Sources such as mill tailings, waste rock and milling and processing areas.
- Affected media and pathways, such as soil and sediments, surface water, groundwater and air.
- Potential human and ecological receptors.

Remediation options vary depending on the extent, volume and concentration of the hazardous substance; the affected media and pathway; and the threat to humans and the environment based on the current or future land use (e.g., recreational, commercial or residential use). Typical remedies used to address AML sites include source removal, encapsulation and treatment. Because of site variables, the cost and length of remediation can vary widely. Remedies involving water treatment and waste encapsulation require long-term — often indefinite — operation and maintenance activities. Remedies are often supplemented by institutional controls (administrative or legal controls, such as land use covenants, which restrict land uses; and soil management plans, which describe how affected soil and mine waste are to be managed on sites) that minimize the potential for human exposure.



Charlie Alpers/USGS

DTSC currently has two documents that can be used to assist in identifying and investigating AML sites: [“Abandoned Mine Lands Preliminary Assessment Handbook”](#) and [“Abandoned Mine Lands Site Discovery Process.”](#)