

Superfund sites: Old mining areas may get cleanup

Feds propose \$1.6M project to deal with pollution of 19th century origin

Adam Spencer, The Del Norte TriPLICATE, 5-1-14

Two 19th century mining sites in the historic Altaville mining area of Del Norte County are being considered for cleanup by Six Rivers National Forest due to contamination concerns, and a public comment period on the proposed cleanup starts today.

Six Rivers National Forest is inviting the public to comment on the recently completed Engineering Evaluation/Cost Analysis (EECA) of the cleanup of Mammoth Mine and Hardscrabble Mine, both of which have been designated as Superfund sites by the Environmental Protection Agency.

The preferred alternatives for cleanup would cost more than \$1.63 million and would be funded by the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as EPA's Superfund.

Links to the evaluation/analysis and concise descriptions of each project can now be found on the home page of Six Rivers' website (www.fs.usda.gov/srnf/) under "Mine Restoration" and the documents can also be obtained at the Smith River National Recreation Area visitor center.

Mammoth Mine, an abandoned copper and chromite mine, and Hardscrabble Mine, an abandoned copper mine, were likely founded along with other mines in the Altaville area in the 1850s after copper deposits were discovered at the headwaters of Copper Creek in 1853, according to the EECAs.

The town of Altaville was established in 1860 to service the mining operations and in 1863 there were at least 25 mining companies actively mining in the area.

"Veins and lenses with chromite and copper minerals are present in the serpentine rock at or near the contact with granitic rocks in Del Norte County," according to the EECA.

Potential concern

There are more than 250 abandoned mining sites on the Smith River National Recreation Area, but Mammoth Mine and Hardscrabble Mine have been identified as having a higher priority for cleanup because mining waste rock piles have direct contact with running water.

Metals at the sites were found to not be leaching into water, but there are still some "chemicals of potential concern."

Mercury in surface water was detected at the Hardscrabble mine at a level high enough to be considered "chemicals of potential concern."

The mercury was not detected at a level that exceeded human health or ecological concern.

Hardscrabble Mine's waste rock includes metals at levels of potential concern for aluminum, antimony, arsenic, beryllium, cobalt, copper, lead, mercury, selenium, silver, thallium and zinc.

Sediment at Hardscrabble Mine includes aluminum and copper at levels of potential concern.

Waste rock of potential concern at Mammoth Mine includes antimony, arsenic, copper, lead, mercury, selenium, silver, and zinc. Sediments of concern at Mammoth Mine were antimony, arsenic, chromium, cobalt, copper, lead, nickel, vanadium and zinc.

There were no metals detected in surface water at Mammoth Mine that reached a point of potential concern.

Cleanup proposed

Six Rivers is proposing to remove the waste piles and encapsulate the material in an on-site repository for Mammoth Mine while Hardscrabble waste material will be disposed at a nearby repository used for the Union-Zaar mine cleanup, which was completed in recent years.

On-site disposal is not a concern since the waste rock was not found to be leaching, according to Curtis Cross, forest engineer of Six Rivers National Forest.

"Since it was determined that it doesn't leach we don't have as many concerns about leachate becoming acidic or carrying metals with it," Cross said.

The concern for human and wildlife health stems from inhalation and ingestion concerns, as well as possible leaching of metals if the materials are disturbed.

"We're not looking at leaching under natural conditions, but if conditions change in some way it could very well leach," Cross said.

The preferred alternative of Mammoth Mine cleanup is estimated to cost \$673,000 while the preferred cleanup for Hardscrabble Mine would cost \$958,500.

Public comment on the proposed project will be accepted until May 31, 2014, and responses to comments will be included in the EECA documents.