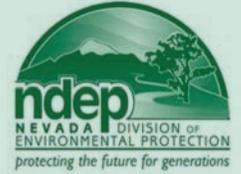




Carson River Mercury Superfund Site



U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • February 2013

EPA Conducting Five-Year Review of Cleanup Actions

The United States Environmental Protection Agency (EPA) has begun the third Five-Year Review of cleanup actions undertaken at the Carson River Mercury Superfund site Operable Unit 1 in Nevada. The review will evaluate whether the cleanup actions for the site protect human health and the environment.

THE REVIEW PROCESS

When EPA's cleanup remedy leaves some contamination in place, the Superfund law requires the Agency to evaluate the protectiveness of the cleanup every five years. The purpose of the Five-Year Review is to understand how the cleanup actions are working and to measure the progress towards achieving cleanup objectives. The Five-Year Review evaluates the remedy's short- and long-term protectiveness of human health and the environment.

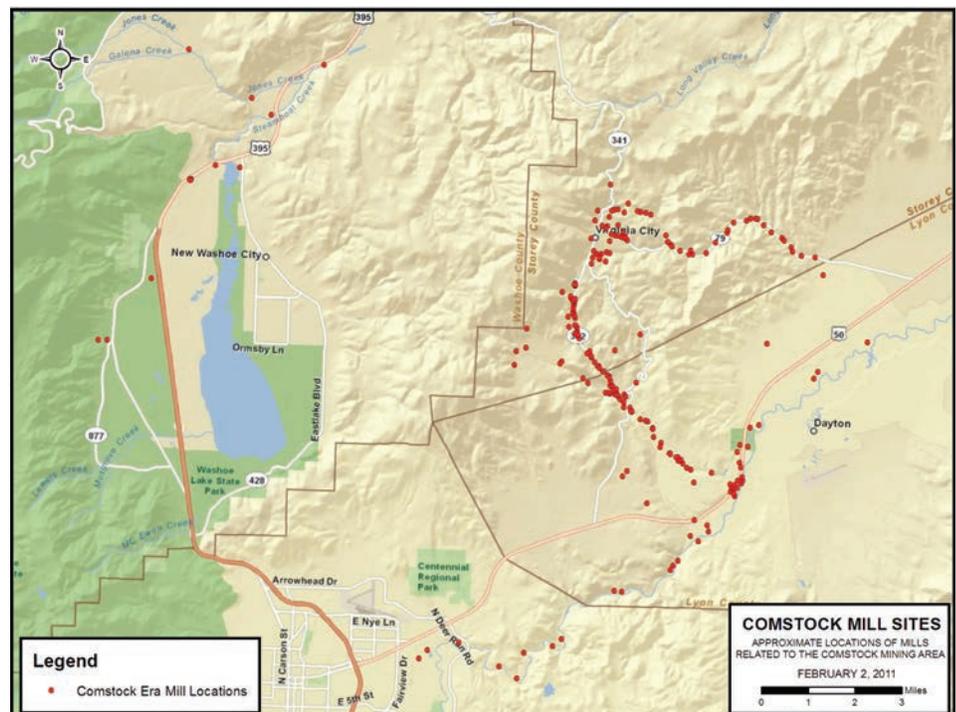
Specifically, EPA looks at any changes in scientific knowledge about site contaminants and exposure pathways, the status and effectiveness of legal documents regarding property restrictions, and changes in regulatory standards. The EPA project manager will talk with other regulatory authorities, EPA's scientific experts, and interested members of the public.

Upon completion of the review, a copy of the final report will be placed in the local information repositories and websites listed on the back page and a notice

will appear in the local paper announcing the completion of the Five-Year Review Report. EPA will monitor the Site and conduct additional Five-Year Reviews until conditions allow unrestricted use.

SITE HISTORY

The Carson River Mercury Superfund Site (CRMS) includes mercury-contaminated soils at former mill sites, mercury contamination in waterways adjacent to the mill sites, and mercury contamination in sediments, fish and wildlife over more



Areas surrounding the Comstock Mill Sites, and the downstream Carson River to Lahontan Valley, comprise the Carson River Mercury Superfund Site

than a 50 mile length of the Carson River, beginning east of Carson City, Nevada and extending downstream through the Lahontan Valley. The CRMS has two parts, called Operable Units (OU). OU-1 is the historic milling area, where mercury was used to separate silver and gold from the ore, and OU-2 is the Carson River system where the mercury has come to reside. In simplified terms, OU-1 generally consists of the tailings and soil contamination near the mills, and OU-2 generally consists of the downstream water and sediment contamination.

Contamination at the site is a legacy of the Comstock mining era of the late 1800s, when mercury was imported to the area for processing of gold and silver ore. The site was placed on the Superfund National Priorities List (NPL) on August 30, 1990, to address the release of mercury to soil and surface water.

In December 1999, EPA completed the cleanup in OU-1 of three residential areas in Dayton and one in Silver City that had mercury in the soils above the site-specific cleanup level of 80 parts per million. The mercury contamination was completely removed at the location in Silver City, but some contamination remained below the clean cap at the areas in Dayton, so EPA evaluates the effectiveness of the Dayton cleanups every five years.

EPA and NDEP also developed a long-term sampling and response plan for new residential construction and developments within the CRMS to assure that surface soils in residential areas do not pose a risk to human health by containing mercury at levels above the site cleanup standard. The provisions of the plan have been applied to many residential developments in the time since the remedy was selected. EPA also evaluates the effectiveness of this long-term sampling and response plan every five years.

OU-2 is still in the investigation stage, with no remedy yet in place, so it is not part of the current CRMS Five-Year Review.

The second Five-Year Review for the OU-1 cleanups, which was completed in 2008, identified some issues with the implementation of the remedy. Specifically, the review concluded that: 1) the mercury-contaminated areas that comprise the CRMS are not well defined, 2) the long-term sampling and response plan that governs residential development in the CRMS has not been formally adopted by EPA and the Nevada Division of Environmental Protection (NDEP), 3) developments of less than five residential units or five acres were not routinely being evaluated for mercury contamination as required in the remedy, 4) information about properties which had been sampled and/or remediated under the response plan was not readily accessible to landowners or the

Fish Advisories for Carson River Mercury Site Waterways

Due to elevated levels of methylmercury in fish, the Nevada State Health Division has issued health advisories recommending limits on consumption of fish species from six northern Nevada waters. The health advisories recommend *no consumption of any* fish from Big and Little Washoe Lakes, Lahontan Reservoir, and the Carson River from Dayton downstream to the reservoir. Mercury can cause permanent damage to the nervous system and serious disabilities for developing fetuses.



public, and 5) land use controls had not been put in place to assure the continued protectiveness of the properties cleaned up by EPA in the late 1990's. The review determined that the remedy, as implemented, was not protective of human health and the environment.

EPA and NDEP have taken a number of steps to address the issues identified in the second Five-Year Review. A Global Information System (GIS) map of the areas of contamination concern has been developed and is posted on the NDEP Carson River website (see "For more information" on the back). The map will be updated as sampling is conducted and more detailed contamination concentration information becomes available. EPA and NDEP will be formally adopting the long-term sampling and response plan and NDEP will be working with affected counties and local jurisdictions to assure that residential development with significant soil disturbance follows the provisions for sampling and remediation. The NDEP website will include information by parcel number on properties sampled or remediated under the remedy and Environmental Covenants will be considered for the properties cleaned up by EPA in the late 1990's.

CLEANUP OBJECTIVE

The primary cleanup objective for OU-1 of the CRMS is to reduce human health risks by reducing direct exposure to surface soils in residential areas which contain mercury at

concentrations equal to or greater than the cleanup level of 80 milligrams per kilogram (mg/kg). The cleanup conducted in the late 1990's addressed those residential areas which had been identified by sampling to contain mercury in surface soils above the cleanup level. The long-term sampling and response plan was designed to provide human health protection to areas which would be developed for residential uses in the future.

COMMUNITY INVOLVEMENT

EPA is always interested in hearing from the public. If you have any issues or concerns about the Carson River Mercury cleanup, and particularly if you have direct knowledge regarding the implementation of the existing remedy, EPA would like to talk with you. Please contact Jere Johnson or Leana Rosetti at the numbers below.

EPA will also be updating its Community Involvement Plan for the Carson River Mercury site, and will be interviewing community members in the spring of 2013. The information gathered will be used to develop the most appropriate methods for involving the community. If you are interested in giving your input for the plan, please contact Leana Rosetti.

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administrative record or contact EPA representatives.

www.epa.gov/region09/carsonrivermercury and
www.ndep.nv.gov/bca/carsonriver/criver_1.htm

Please visit the Carson River Mercury Site websites at:

For More Information

Information Repository

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