

Carson River Mercury Site: Community Involvement

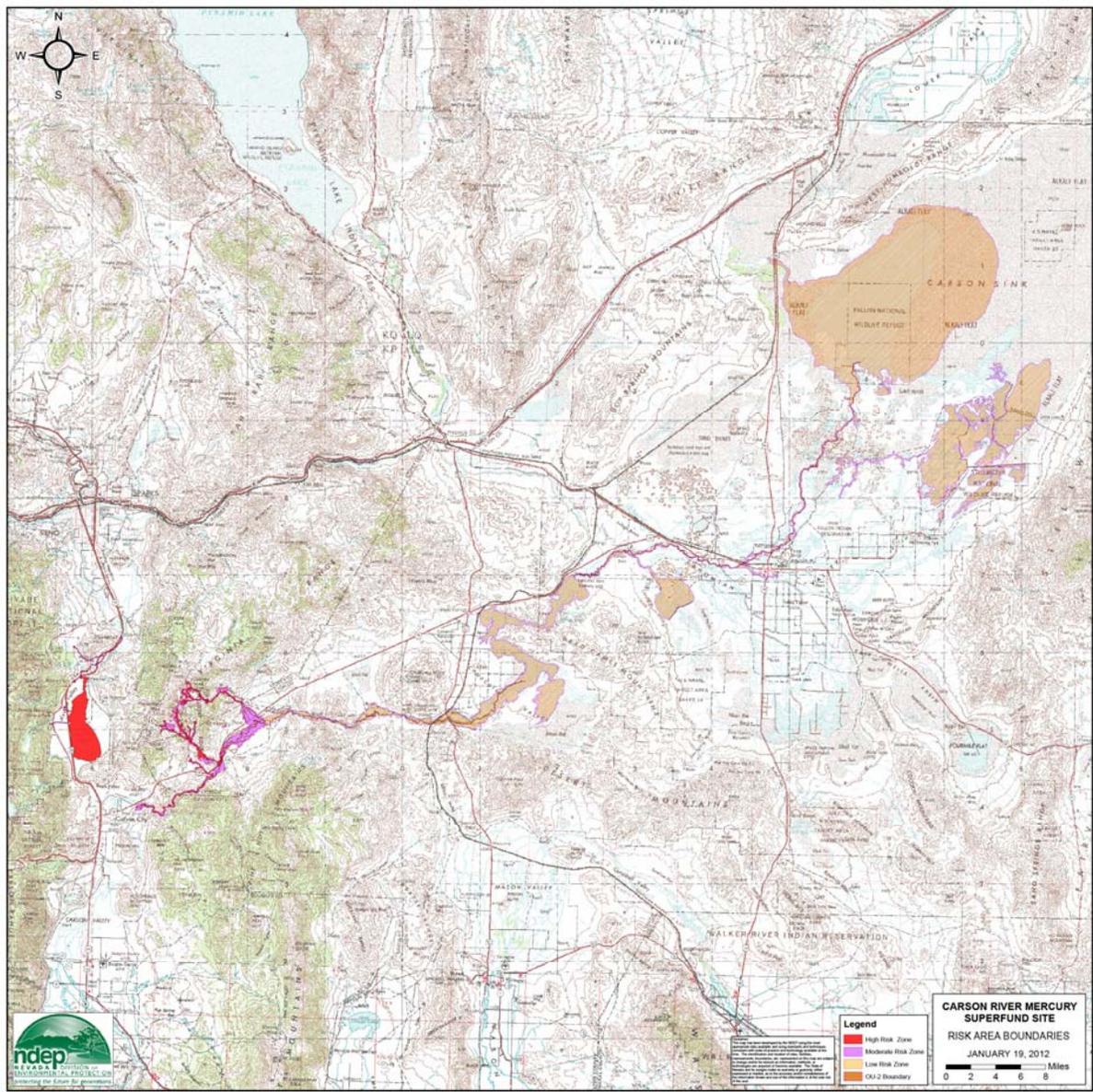
Sarah Cafasso
Community Involvement Coordinator
U.S. Environmental Protection Agency

April 3rd, 2014

Carson River Mercury Site

- ▶ Added to Superfund National Priorities List 1990
- ▶ Mercury contamination of tailings, soil, sediments, water, and biota from eastern edge of Carson City to Carson River terminus at Carson Sink and Stillwater Wildlife Refuge, and near Washoe Lake
- ▶ Caused by addition of mercury to ore in the 1800s at mills processing material from the Comstock Lode
- ▶ Estimated that 14,000,000 pounds of mercury was lost to River system
- ▶ Nevada State Health Division fish advisories
- ▶ Five Nevada Counties affected: Carson City, Washoe, Storey, Lyon, and Churchill





Carson River Mercury Site



Carson River Mercury Site

- ▶ For management purposes, EPA has divided the site into two Operable Units:
 - ▶ OUI: The mill sites and those areas where tailings have contaminated surface soil and drainages (generally the source areas)
 - ▶ OU2: The Carson River itself, including sediments and fish and wildlife (generally the depositional/ecological areas)
- ▶ OUI cleanup alternative selected by EPA in 1995
- ▶ OU2 is still in the investigation stage



The CERCLA Process at Carson River Site

1850's – widespread mercury contamination from Comstock mining and milling district
1990 – Site listed on Superfund National Priorities List
1992 – EPA studies initiated on OU 1 (mill sources) and 2 (river/lake)
1995 – OUI - source area Record of Decision (ROD) signed
1999 – cleanup of five yards in Dayton and one in Silver City
2008 – Second Five-Year Review
2013 – Third Five-Year Review (source area). Minor remedy changes – Explanation of Significant Differences. Community Involvement Plan Interviews
2014 – post bilingual health advisory at Lahontan and access points along the river. Scoping OU2 Remedial Investigation/Feasibility Study
*2015/2016 – OU2 complete RI/FS fieldwork and report (results, risk assessment and cleanup options)
*2017 – remedy decision (ROD) for OU2
*2018 – OU2 remedy design
*2019 - 2021 – OU2 construction

Carson River Mercury Site OU1

- ▶ **Cleanup Record of Decision (ROD) included:**
 - ▶ Establishment of soil cleanup levels for mercury and arsenic in residential settings
 - ▶ Soil removal and capping at five residential areas in Dayton and Silver City that exceeded the cleanup level for mercury
 - ▶ Institutional Controls to protect human health in the event of future residential development



Carson River Mercury Site OU1

- ▶ **Long-Term Sampling and Response Plan (LTSRP)**
 - ▶ Institutional Control for residential development
 - ▶ Purpose is to protect public, specifically young children, from exposure to mercury, arsenic, and lead in soil
 - ▶ Administered by NDEP
 - ▶ Requires sampling and, if necessary, remediation of contaminated soils
 - ▶ Applies to subdivision development and development/ soil disturbance at individual properties
 - ▶ Formally adopted by NDEP and EPA



OU2 Remedy Decision Process

- Investigate nature and extent of contamination in river sediments, update risk assessment and evaluate remedy options
- Evaluate the costs and benefits of cleaning up mercury contamination in the river, reservoir, and wetlands and determine what type of physical cleanup is warranted
- Remedy will include Institutional Controls (ICs), probably similar to other fish exposure sites
- Multilayered IC approach – advisories, public notification and education to reduce exposure
- Focus on contribution from mining, not atmospheric deposition



Next Steps

- ▶ Post bilingual signs this spring
- ▶ Align with and enlist Nevada's assistance across agencies with outreach to prevent fish consumption of mercury contaminated fish – consistency
- ▶ Partner with stakeholders to evaluate and consider innovative solutions to the long-term issue of mercury exposure
- ▶ Consider additional interim actions while we complete remedial investigation



Fish Advisory

HEALTH ADVISORY



A black silhouette of a fish is centered within a white circle. A red diagonal slash crosses the circle from the top-left to the bottom-right. Behind the fish, a white fork and knife are visible, suggesting eating. The entire icon is set against a blue square background.

FISH IN THESE WATERS CONTAIN HIGH LEVELS OF MERCURY AND SHOULD NOT BE EATEN

**Mercury is known to cause birth defects
in infants and nerve damage in adults**

PRACTICE CATCH AND RELEASE



A circular logo with a green border. Inside, a white fish is shown with a green arrow pointing from its mouth to the word 'RELEASE' at the bottom. The word 'CATCH' is at the top. The background is blue with a white wave.

For more health advisory information:
<http://www.ndow.org/fish/mercury/>
<http://www.epa.gov/mercury/advisories.htm>
<http://www.epa.gov/espanol/mercurio/> - Español



NDOW-Mercury



EPA-English



EPA-Español



ndep
NEVADA DIVISION OF
ENVIRONMENTAL PROTECTION
protecting the future for generations
www.ndep.nv.gov



Made in the USA

Community Involvement Plan

- ▶ A living, public document
- ▶ Outlines specific outreach activities to address community concerns and meet the following goals:
 - ▶ Encourage community interest and give the public the opportunity to provide meaningful input into site cleanup decisions
 - ▶ Provide accurate and understandable information in a manner considerate to community's preference
 - ▶ Apply community insight and knowledge to outreach



An Outline of the Plan

- ▶ Site history
- ▶ Location
- ▶ Superfund cleanup process
- ▶ The Community
 - ▶ Community Profile
 - ▶ Map of the area
 - ▶ Community Issues and Concerns
 - ▶ Recreation
 - ▶ Hunting/fishing
 - ▶ Fish advisory
 - ▶ Environmental Concerns
- ▶ Communications and Public Education Preferences



- ▶ Community Involvement Action Plan
 - ▶ Information Repository
 - ▶ Written Communication
 - ▶ Signage
 - ▶ Coordination with local groups
 - ▶ Meetings/informational gatherings
 - ▶ Public events
 - ▶ Other media – radio, tv, newspaper
- ▶ Community Involvement Timeline
 - ▶ Historic activities
 - ▶ Future activities

Results from Community Interviews

- ▶ **Many people have a general understanding of the site**
 - ▶ “Don’t eat the fish!”
 - ▶ Know that it’s a result of mining
 - ▶ Many don’t know any specifics of the site or cleanup
- ▶ **People have concerns**
 - ▶ Illnesses and health concerns
 - ▶ Property values
 - ▶ Habitat
 - ▶ Tourism



Do You Know About the Fish Advisory?

- ▶ **Mixed responses**
 - ▶ Some people were aware vaguely, but still eat fish
 - ▶ Others are very aware and believe that everyone knows
 - ▶ Some had no knowledge of advisory
- ▶ **Identified potential demographics that may still be eating the fish and need to be reached**



Questions Addressed in the Interviews

- ▶ **How can we be more effective?**
 - ▶ Networking with local groups
 - ▶ Attending festivals, community meetings, etc.
 - ▶ Creating fact sheets
- ▶ **How do you like to receive information?**
 - ▶ Email
 - ▶ Local newspapers
 - ▶ Social media
 - ▶ Face-to-face (meetings)
 - ▶ “The Flow” Sub-conservancy newsletter



Questions Addressed in the Interviews

- ▶ Repository Info (*Nevada State Library, Dayton Valley Library and Churchill County Library*)
 - ▶ Awareness of repository ~ 50%
 - ▶ Comments on ideal locations
- ▶ Interviewees given the opportunity to speak freely about any other issues, questions or concerns



There's still time! EPA and NDEP are listening if you'd like to contribute info to the CIP

Sarah Cafasso

cafasso.sarah@epa.gov

(415) 972-3076



Thank You!

