

Carson River Mercury Superfund Site Management Strategies and Goals

May 2011



Staff at NDEP Responsible for CRMS

- Jeff Collins - Supervisor
Over 21 years experience as environmental consultant working on complex environmental sites across the Pacific and Mountain West.
- Jack Yates - Environmental Science Staff
Over 20 years experience working toward reclamation of abandoned mine and Superfund sites with similar issues to CRMS. Significant experience creating GIS database systems to map and manage collected site data.
- Dave Friedman - Environmental Science Staff
Nine years experience as an environmental consultant working on a number of sites, including Superfund sites, on the East Coast. Twelve years experience working on remediation sites and solid waste issues for NDEP.

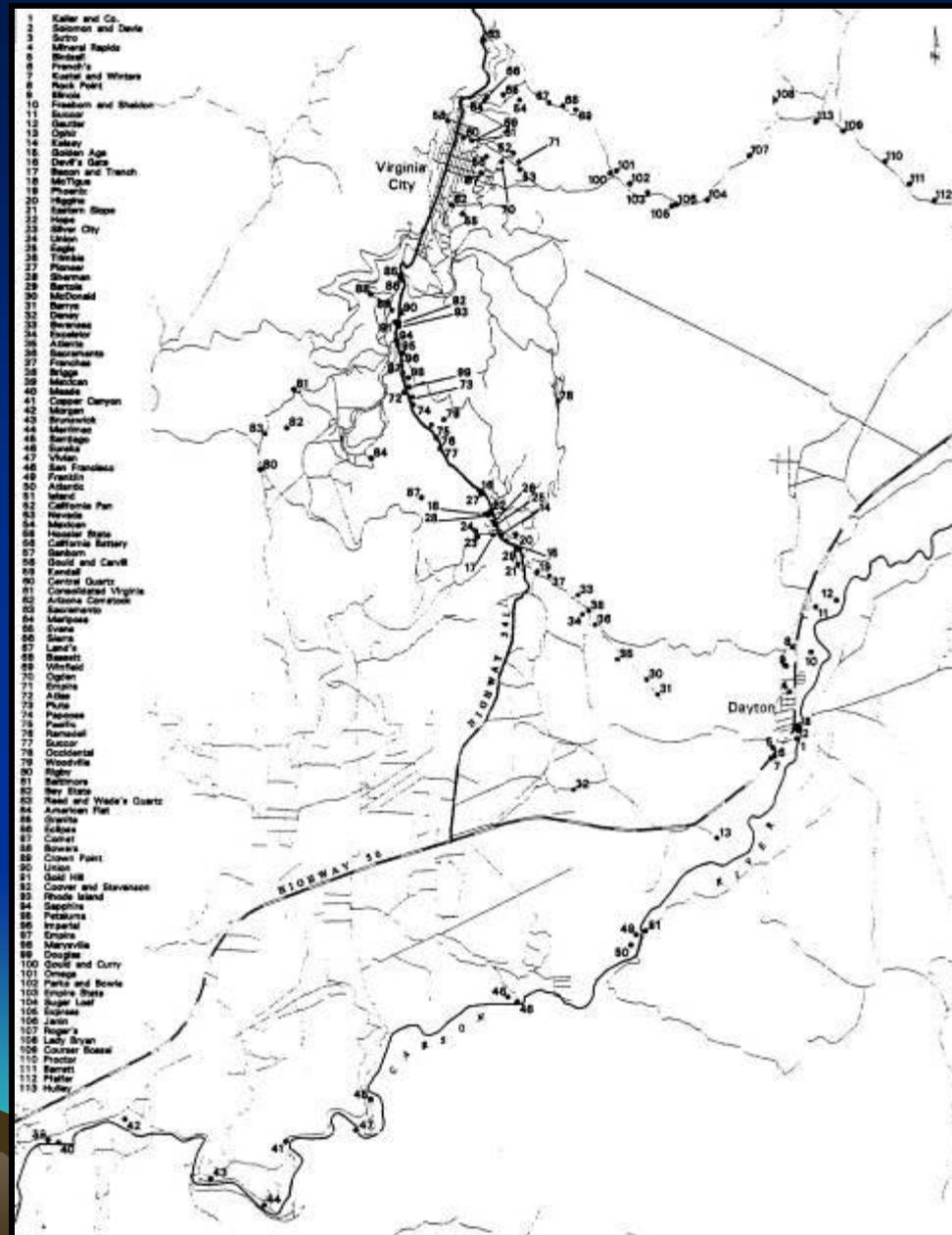


CRMS Overview

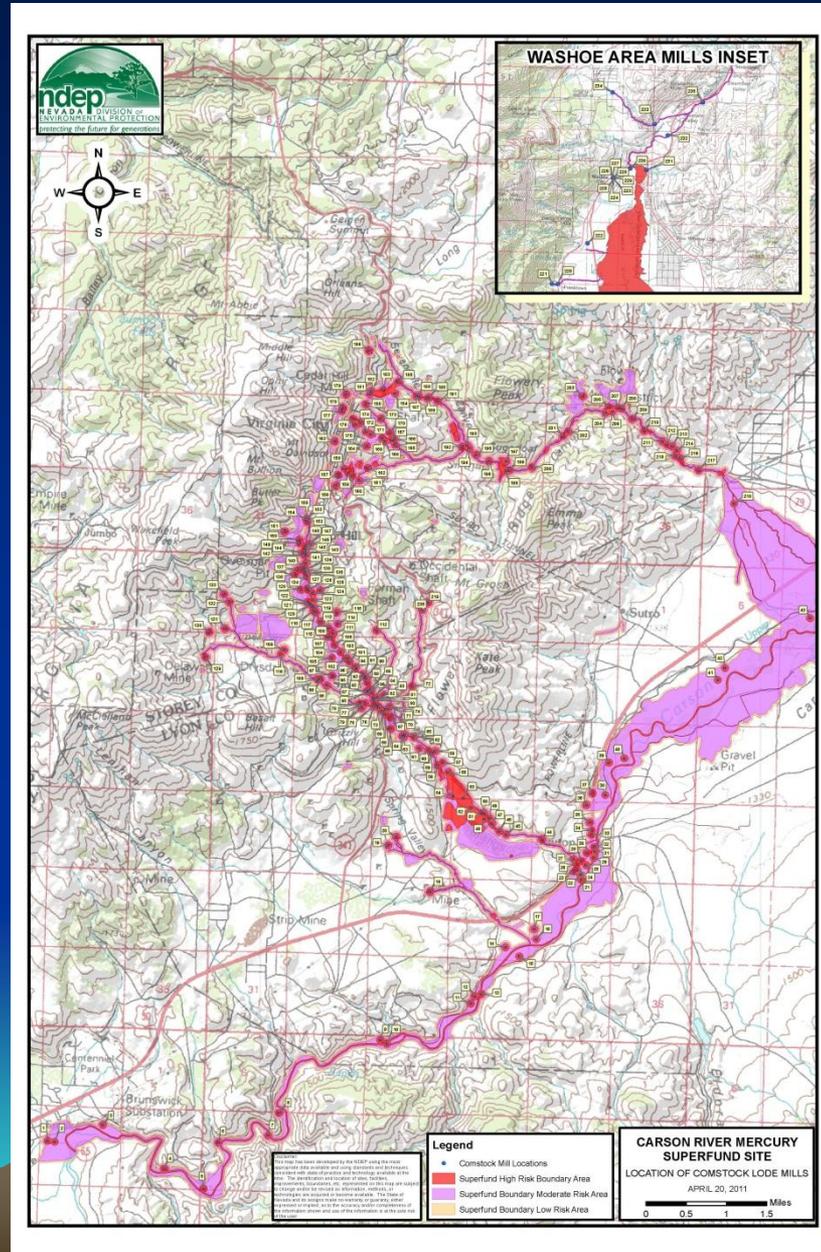
- Preserve and document site history
- Refine definition of the CRMS
- Streamline identification and evaluation process using updated electronic means
- Improve communications between stakeholders
- Clarify responsibilities for land developers and property owners



1990's EPA Compilation Map of Mill Site Locations – 113 Total



2011 NDEP Compilation Map of Mill Site Locations (236 Total) and Risk Zones



Update on the CRMS

Operating Unit 1 (OU-1)

- Defined as the upland areas from New Empire to the Six Mile Canyon fan along the Carson River; Gold, Six Mile and Seven Mile Canyons from Virginia City down to their confluence with the Carson; and mill impacted areas in Washoe Valley and down Steamboat Creek. It consists of contaminated soils, waste rock, tailings piles and areas now impacted by erosion of these materials.
- OU-1 will need continued management and monitoring to assure public protection from mine wastes; therefore, NDEP has requested EPA further refine the location of where these wastes actually reside.
- The most significant health risk in OU-1 is direct contact and ingestion of contaminated soils.



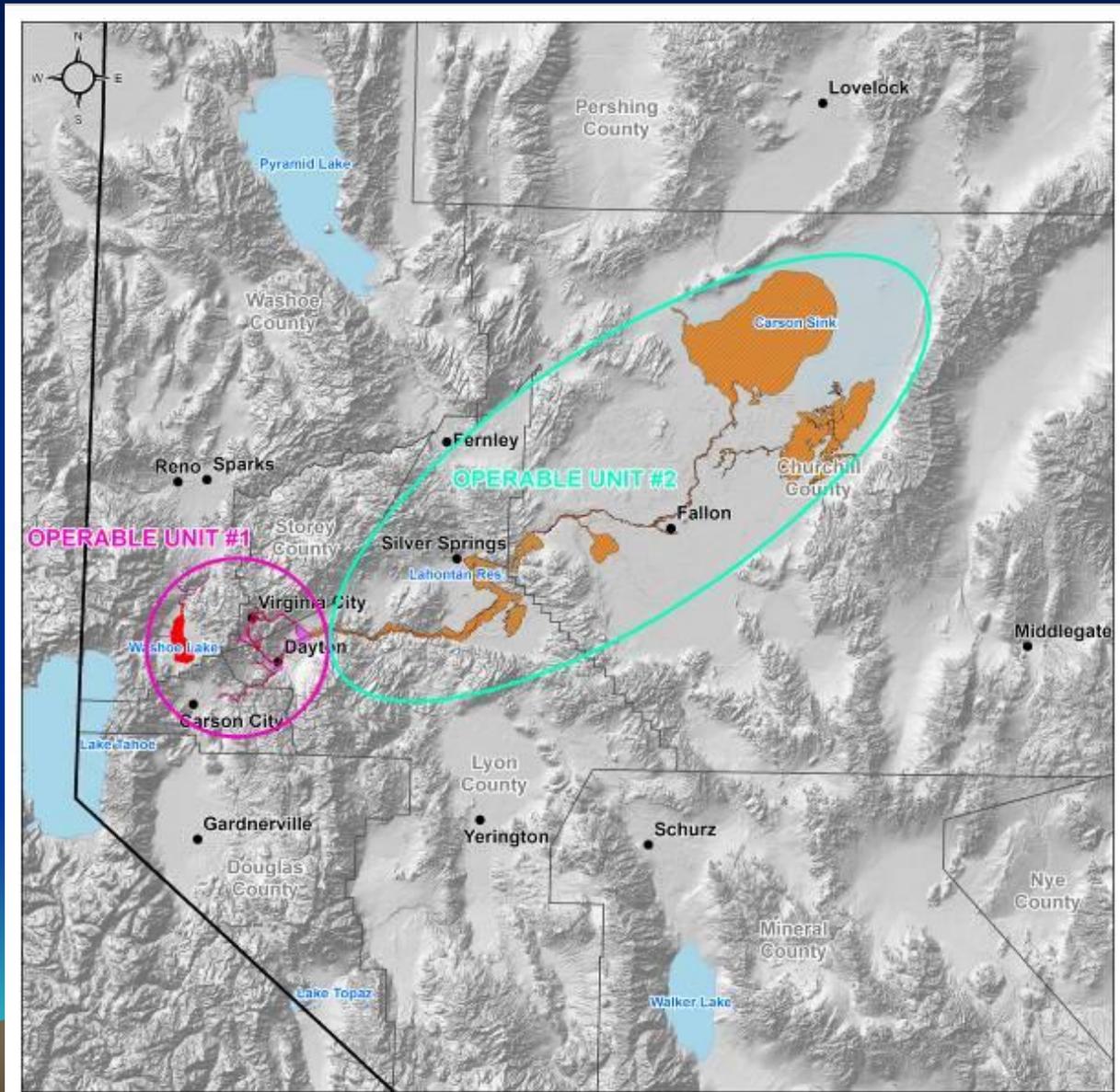
Update on the CRMS

Operating Unit 2 (OU-2)

- OU-2 is defined as the water, sediment and biologic resources of the Carson River, Lahontan Reservoir, Washoe Lakes, Steamboat Creek, associated Irrigation Ditches and Stillwater Wildlife Refuge.
- EPA Contractor and USGS are continuing studies of OU-2 areas and will be producing a (RI/FS).
- The most significant health risk posed by mercury in OU-2 is consumption of fish and waterfowl from affected lake & river systems.



CRMS Operable Unit Locations



What work still needs to be done?

- Comprehensive identification of mercury mill sites to preserve history and refine site boundary. Current time frame to begin archeological field work is Summer 2011.
- Continued soil sampling to allow refinement of site boundary to include only areas with contaminated mine wastes.
- Continued removal of contamination, if necessary, at sites where contamination is identified that exceeds accepted standards and puts human health at risk.
- On-going monitoring and sampling of soil disturbances at new developments and existing residences in areas of probable contamination.



What are the challenges?

- Adequate Federal funding is necessary.
- Better lines of communication between EPA/NDEP, local jurisdictions and the public (Fact Sheets).
 1. Improved website to provide access to maps, reports, data, and any other resources or information pertaining to the CRMS.
 2. Participation by NDEP/EPA in local organizations like Town Advisory Councils, Community Advisory Boards and LEPCs to stay current on local planning goals, initiatives, and needs.



What are the challenges?

3. Revised Long Term Sampling and Response Plan (LTSRP)

The LTSRP was established in the Record of Decision to be the guidance document that identifies the management goals and strategies of OU-1 by providing a clear sampling plan for proposed disturbance of soils within contaminated areas. Proposed revisions are intended to update this document based on current information and provide a clear path forward for all stakeholders.



What are the benefits?

- Continued confidence that environmental conditions are at safe and healthful levels for the most vulnerable populations; i.e. children.
- Additional removal of mercury impacted tailings, if necessary.
- As new data verifies areas are not significantly impacted by historic mine wastes and impacted sites are cleaned up or capped; federal and state oversight will be reduced appropriately with the long-term goal of reducing the physical size and extent of the site.



Contacts and Resources

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NDEP's CRMS Website:

http://ndep.nv.gov/bca/carsonriver/criver_1.htm

