



BROWNFIELDS CLEANUP GRANT APPLICATION PLUMAS-EUREKA STATE PARK JAMISON CREEK DAY USE AREA

**AML Forum Meeting
State Lands Commission Office
Sacramento, CA**

November 18, 2009

Greg Marquis, Abandoned Mine Lands Unit
California Department of Conservation





What is a Brownfield?

*"...Real Property, the Expansion, Redevelopment, or Reuse of Which May Be Complicated by the Presence or Potential Presence of a Hazardous Substance, Pollutant, or Contaminant." **

Brownfields may be mine-scarred lands.

* Public Law 107-118, "Small Business Liability Relief and Brownfields Revitalization Act," signed into law on January 11, 2002.



Brownfields Grants

- “EPA's Brownfields Program provides direct funding for brownfields assessment, cleanup, revolving loans, and environmental job training.” *
- Goals of the program:
 - Protecting the environment
 - Promoting partnerships
 - Strengthening the marketplace
 - Sustaining Reuse
- Grants are awarded annually
- The grant process is competitive

* http://epa.gov/brownfields/grant_info/index.htm



Types of Brownfields Grants

- Assessment
- Cleanup
- Revolving Loan Fund
- Job Training
- Technical Assistance
- State and Tribal Response Programs
- Targeted Brownfields Assessments



Funding Table (example from USEPA region VII presentation)

TYPE	WHO	FUNDING	ACTIVITIES
Assessment	States, Tribes, Local Governments, Land Clearance Authorities, Regional Councils, Redevelopment Agencies & Other Quasi – Governmental Entities	\$200,000/ contaminated property & \$200,000 for petroleum sites (Up to \$350,000/ Site with Waiver)	Inventory, Characterize, Assess (ASTM standards), & Conduct Planning
Cleanup Revolving Loan Fund (RLF)	Same as Above	\$1,000,000/ Eligible Entity, 20% Cost Share	Loans and Subgrants for Cleanup
Direct Cleanup	Same as Above + Non-Profits	\$200,000/ property, up to 5 properties per year; 20% Cost Share	Cleanup - grant recipient <u>must own property</u>
Job-Training	Universities & Job-Training Organizations	\$200,000	Environmental Training





What is a Cleanup Grant?

"Brownfields Cleanup grants provide funding for a grant recipient to carry out cleanup activities at brownfield sites. Funds may be used to address sites contaminated by petroleum and/or hazardous substances, pollutants, or contaminants (including hazardous substances comingled with petroleum)." *

*Source: *EPA Brownfields Grants: Interested in Applying for Funding?* USEPA, 2009.





Specific to Cleanup Grants

- Maximum of \$200,000 per grant
- Each applicant may apply for up to three grants
- Multiple State agencies may apply as “the State of California,” which is considered one applicant
- Grants are specific to “operable units” defined by applicant
- Assessment is to be completed before application—only confirmation sampling is allowed



Specific to Cleanup Grants (continued)

Community Notification Requirements

- Place notice in newspaper(s) or equivalent at least two weeks before submittal of application
- Make draft grant application available for public review
- Hold a public workshop to discuss proposal and consider public comments
- Provide responses to public comments

NOTICE OF PUBLIC WORKSHOP

The California Department of Conservation, in partnership with State Parks and the California Department of Toxic Substances Control, is applying for Brownfields Cleanup Grants from the U.S. Environmental Protection Agency to conduct remedial activities at the Jamison Creek Day-Use Area at Plumas-Eureka State Park. A workshop to discuss and receive public comments on this application will be held at 1 PM on October 12, 2009, at the Mohawk Community Resources Center Meeting Room, 8889 Highway 89 Suite #4, Blairsden, CA 96103. A draft grant proposal can be reviewed at <http://www.conservation.ca.gov/oms/Pages/index.aspx>, or contact Greg Marquis at 916-323-9227.

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Sept. 30, 2009



Plumas-Eureka State Park Grants

- Three cleanup grants were applied for to remediate the Jamison Creek Day Use Area (JCDUA)
- Three agencies coordinated to apply for the grants
 - Department of Conservation
 - California State Parks
 - Department of Toxic Substances Control
- Application timeline/deadline was extremely short



DOC's "Re-mediation" philosophy

Protect visitor and employee health and safety while preserving historic and cultural values

- Use Bodie State Historic Park chemical remediation as a model
- Work closely with archaeologists/consider historical preservation
- Use effective remediation methods



Site Specific Considerations

- Powerhouse
 - Keep existing grade/contours for soils around building
 - Protect building
- Jamison Creek
 - Stabilize/reduce erosion
 - Standard rip-rap may be undesirable
- JCDUA Access
 - Americans with Disabilities Act (ADA) accessibility
 - Picnic benches and grills



Results of Public Participation

- Interest in preserving the Powerhouse
- Letters of support from community groups
 - Plumas Eureka State Park Association (PEPSA)
 - Eastern Plumas Chamber of Commerce
 - The Sierra Fund
 - Trout Unlimited

The following slides are an example of a presentation for the public notice requirement of Brownfields Cleanup Grant applications. The presentation was given at the public workshop for the Plumas-Eureka State Park JCDUA.



BROWNFIELDS CLEANUP GRANT APPLICATION PLUMAS-EUREKA STATE PARK JAMISON CREEK DAY USE AREA

**Public Workshop
Mohawk Community Resources Center
Blairsden, California
October 12, 2009**

Greg Marquis & Cy Oggins, Abandoned Mine Lands Unit
California Department of Conservation

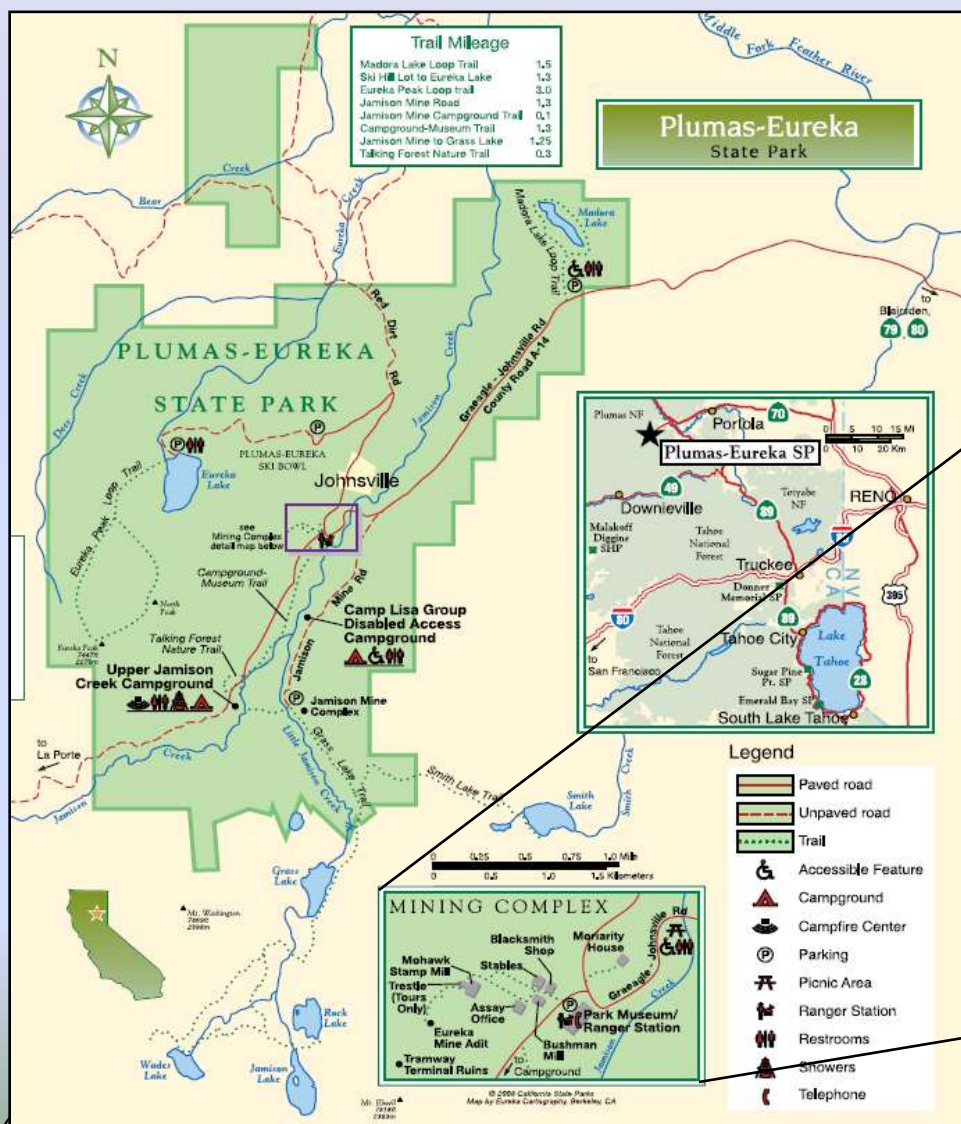
Pam Armas, Superintendent, Sierra District
California Department of Parks and Recreation

Randy Adams & Sandy Karinen
California Department of Toxic Substances Control





Plumas-Eureka State Park (SP) Site Map



Jamison Creek Day Use Area



Jamison Creek Day Use Area



Jamison Creek

**Johnsville Road Bridge
(over Jamison Creek)**

**Approximate boundary
of Jamison Creek Day
Use Area**

Background

Plumas -Eureka State Park

- Gold discovered in 1851
- Major producer of gold in the late 1800s
- Established as a State Park in 1959





Jamison Creek Day Use Area

- Original use likely as a “sulphurets works” mill in late 1800s
- Historic mine tailings leftover from milling process and subsequently been disturbed during construction processes
- Powerhouse built in 1933
- Site adjacent to Jamison Creek and accessible to the public most of the year
- Contains:
 - Park benches
 - Grills
 - Restrooms
 - ADA parking



Powerhouse at Picnic Area



Why Plumas-Eureka SP?

- In 2009, Department of Conservation's Abandoned Mine Lands Unit (AMLU) completes and releases report of a Statewide inventory of State-owned abandoned mine lands.
- Plumas-Eureka SP identified as a site to pursue remediation funding, including USEPA Brownfields grants.
- State partnership formed.
 - **State Parks**: Landowner
 - **Dept. of Toxic Substances Control**: Regulatory agency
 - **AMLU**: State AML agency for this effort designated by Natural Resources Agency



Sampling tailings in Day Use Area using an XRF



Historic Mining Waste

- Mine waste and tailings (waste from processed ore) frequently contain heavy metals
- Metals found in soils within Jamison Creek Day Use Area include:
 - Arsenic
 - Lead
 - Mercury
- Literature describing the area that is now Plumas-Eureka SP mentions high levels of lead in tailings



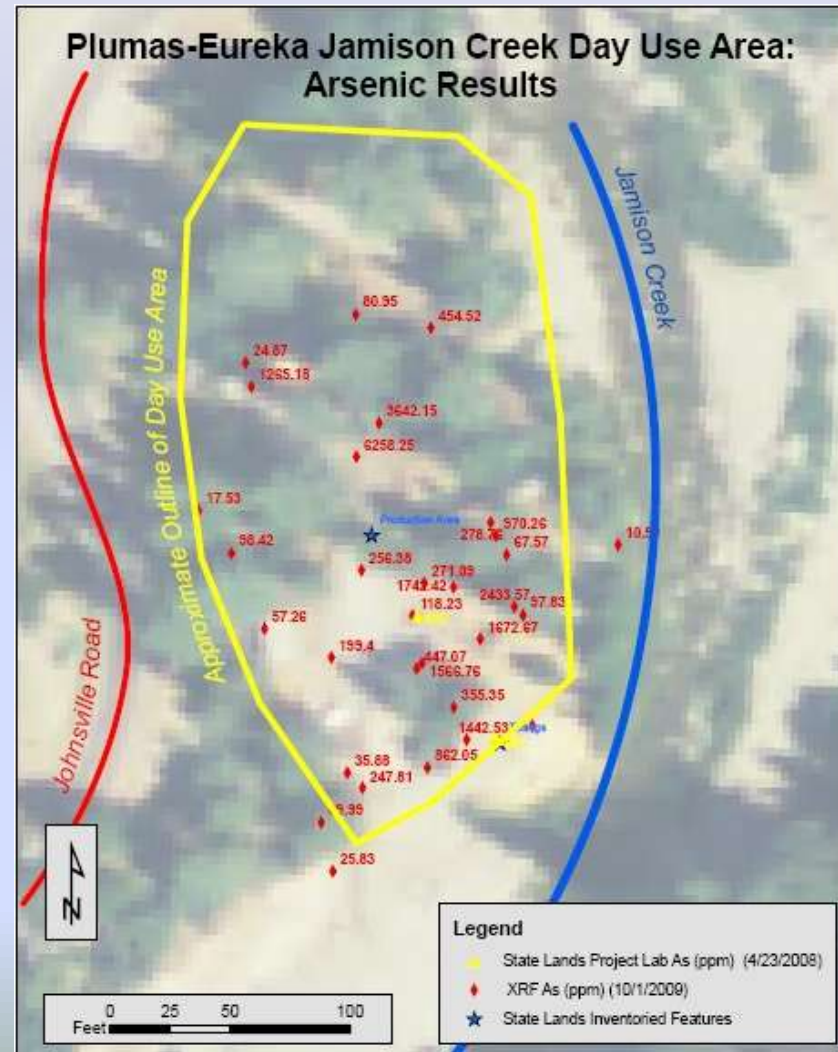
Tailings in Day Use Area



Historic Mining Waste (constituents)

ARSENIC

- From minerals in and near the gold-bearing ore
- Many samples exceed applicable regulatory limits

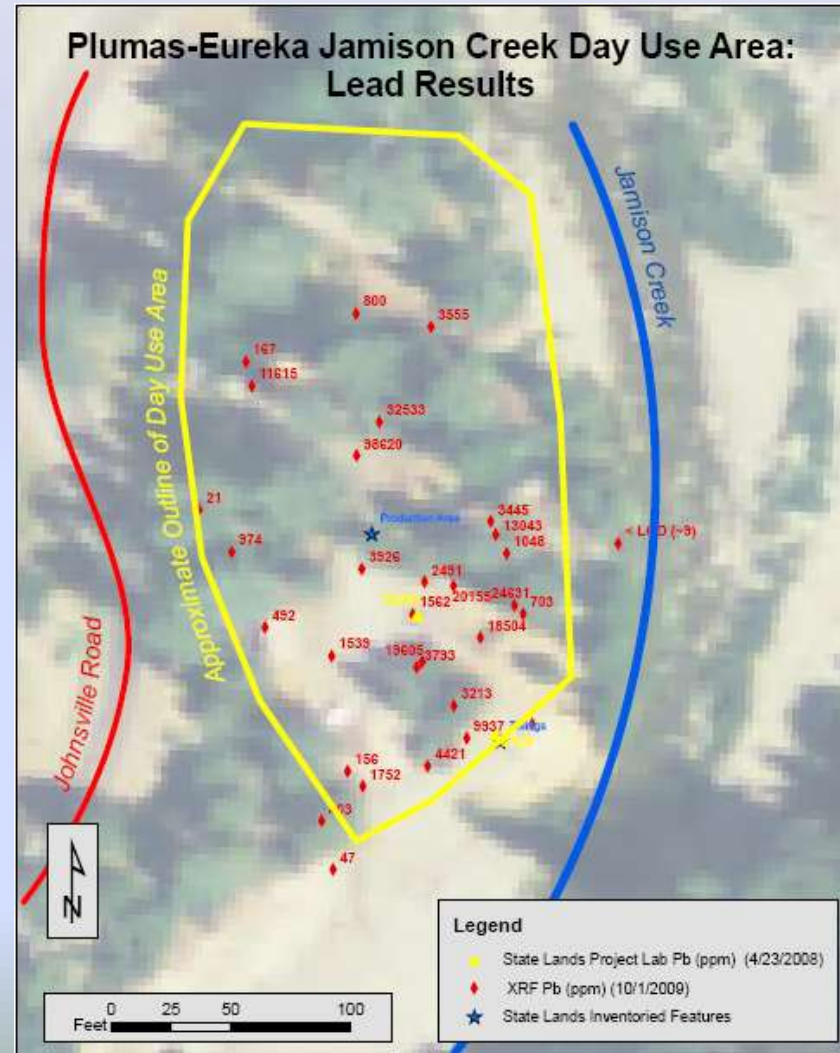




Historic Mining Waste (constituents)

LEAD

- From sulfide minerals in and near the ore, or used in assay process
- Many samples exceed applicable regulatory limits

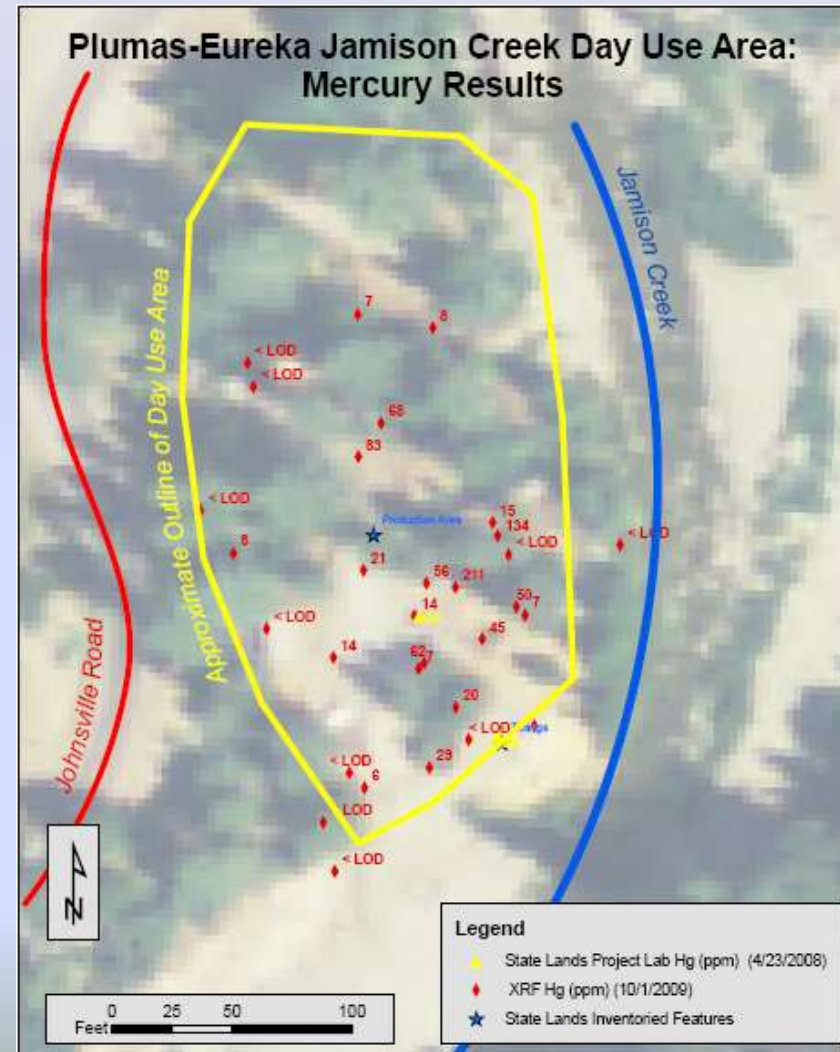




Historic Mining Waste (constituents)

MERCURY

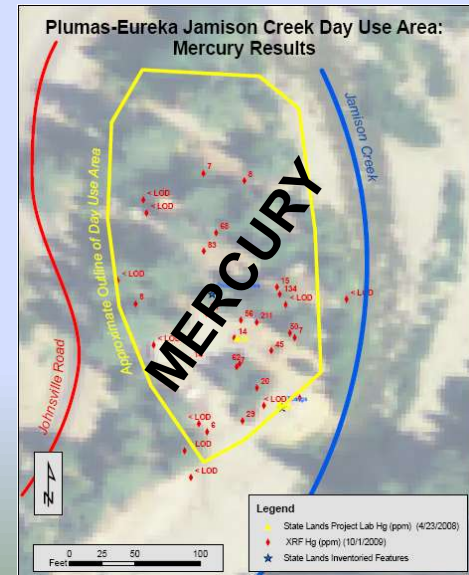
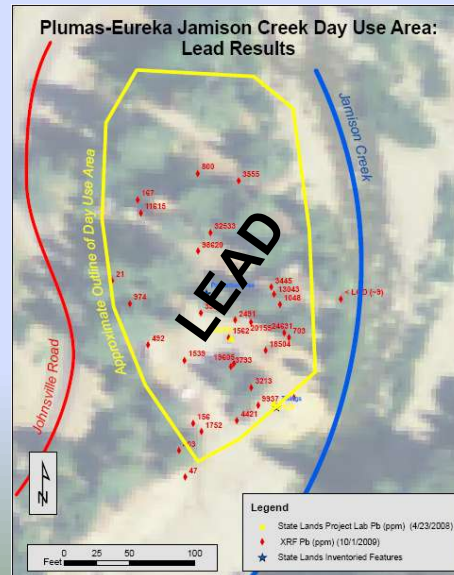
- Added during processing because it adheres to gold
- Several samples exceed applicable regulatory limits





Why Is This A Problem?

- Visitors to the Day Use Area may be exposed to the tailings:
 - By direct contact (contact with skin)
 - By inhalation of dust
 - By ingestion (if children or adults directly consume the soil)
- Tailings that erode into Jamison Creek may cause environmental impacts





What Is A Brownfields Cleanup Grant?

*"...Real Property, the Expansion, Redevelopment, or Reuse of Which May Be Complicated by the Presence or Potential Presence of a Hazardous Substance, Pollutant, or Contaminant." **

- Grants awarded by the U.S. Environmental Protection Agency (USEPA)
- Grant process is competitive
- Grants can be used to cleanup "Mine-Scarred Lands"
- Grant award is up to \$200,000 per site, but the same applicant may apply for up to three grants per year
- The State of California is an eligible entity and may apply

* Public Law 107-118, "Small Business Liability Relief and Brownfields Revitalization Act," signed into law on January 11, 2002.



How Will The Cleanup Grant Be Used?

POTENTIAL REMEDIES

- In general, contaminated soils will be covered with a filter fabric and then approximately one foot of clean soil will be applied to cover the contaminated areas
- In some areas, contaminated soils may be removed and disposed of in hazardous waste landfills
- Portion of the Jamison Creek Day Use Area that may erode into Jamison Creek would be stabilized and revegetated
- Care will taken to preserve natural and cultural resources
- After the remediation is completed, the Day Use Area will be reopened to the public



Conclusions

- Soils within the Day Use Area were found to be contaminated with arsenic, lead, and mercury from historic mining activities
- Visitors to the Day Use Area may be exposed to the contaminants
- Contaminants may erode into Jamison Creek
- The State is applying for USEPA Brownfields grant(s) to be used to cleanup the Day Use Area (the application deadline is October 16, 2009; awards announced in 2010)
- The Day Use Area will reopen to the public after the cleanup is completed





Questions?

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