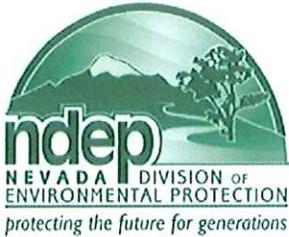


7A

Update to Board on
Eureka by
Dr. Anette Rink



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

July 12, 2012

Dear Eureka Resident:

This spring the Nevada Division of Environmental Protection (NDEP) and the United States Environmental Protection Agency (EPA) sampled weathered slag piles and bare soil throughout the town of Eureka, Nevada. Results of this testing showed that concentrations of lead and arsenic exceed levels at which the EPA recommends further investigation to evaluate and address potential human health effects.

At present, the Nevada State Health Division (NSHD), NDEP, and EPA are evaluating the potential for effects to human health and the environment from materials left over from historic lead smelting activity. To date, little is known to confirm health risks.

We are not aware of any adverse health trends that have occurred among those living in the area over the decades that have elapsed since lead smelting ceased in Eureka (early 1900s). This is encouraging, but nevertheless further investigation is appropriate.

To evaluate whether health impacts resulting from lead exposure exist in Eureka, more information needs to be obtained, which includes soil samples taken on private land and blood lead samples from local residents. Therefore, NSHD, NDEP, and EPA will be offering free blood lead level testing to all Eureka residents and free soil sampling and analysis for all private property. We highly recommend that you participate in these aspects of the investigation.

A community meeting will take place on Monday, July 23, 2012 from 6:00 p.m. to 8:00 p.m. at the Eureka Opera House. We urge at least one person from each household attend this meeting. At the meeting, NSHD, NDEP, and EPA will present human health and environmental information related to lead and arsenic impacts in your community. You will be able to ask questions and make arrangements for free blood testing and soil sampling on your property.

Enclosed is an announcement for the community meeting and blood sampling event. A fact sheet and a list of frequently asked questions regarding lead and arsenic in soil will be available at the community meeting and blood sampling event. The fact sheet and frequently asked questions will also be mailed to all Eureka residents with post office boxes and stops on the rural route. Beginning on July 20, additional information can be found on NDEP's website at www.ndep.nv.gov/eurekasmelter.

If you have additional questions, please feel free to contact Jeff Collins of my staff at 775-687-9381.

Sincerely,

Colleen Cripps, Ph.D.
Administrator

Community Meeting

July 23, 2012

6:00 p.m. to 8:00 p.m.

Eureka Opera House



Free Blood Lead Testing

July 24, 2012

9:00 a.m. to 7:00 p.m.

**Eureka Elementary School in the
Multi-purpose Room**



Town of Eureka Historic Smelters



July 2012

Community Meeting to Discuss Elevated Lead and Arsenic Levels in Soil within the Town of Eureka - Agencies to Offer Free Testing

The Nevada Division of Environmental Protection (NDEP), the United States Environmental Protection Agency (EPA), and the Nevada State Health Division invite the public to a community meeting to learn about elevated lead and arsenic levels detected in soil as a result of historic smelting operations within the Town of Eureka. NDEP, EPA, and the Nevada State Health Division will also discuss their plan to offer free blood lead testing in July and free soil testing in August and September. The meeting will be held on July 23, 2012 from 6:00 p.m. to 8:00 p.m. at the Eureka Opera House.

Community Meeting

July 23, 2012
6:00 p.m. to 8:00 p.m.

Eureka Opera House

Introduction

The NDEP, EPA, and the Nevada State Health Division are evaluating the potential human health and environmental effects of residual materials from historic lead smelting activity in Eureka, Nevada. NDEP and EPA conducted initial sampling this spring by testing for concentrations of lead and arsenic in weathered slag piles and bare soil located throughout Eureka. Results found lead and arsenic concentrations in Eureka at or above levels for which the EPA recommends additional investigation to evaluate and address potential human health effects.

Other Communities

Smelting operations like those that operated in Eureka occurred in numerous towns across the western United States. In many of these towns, the EPA and state agencies conducted cleanup activities to reduce potential health risks posed by elevated levels of lead and arsenic in soil. Residents in these communities have also taken steps to reduce their exposure to lead and arsenic.

Site History

The following summary of time periods, operations, and locations of smelting operations in Eureka is based on information obtained from publicly available historical sources, including US Bureau of Mines Information Circular 7022, Reconnaissance of Mining Districts in Eureka County, Nevada by William O. Vanderburg – June 1938 and The Engineering and Mining Journal #23 – The Silver-lead Mines of Eureka, Nevada by Walter Renton Ingalls – December 7, 1907.

Eureka, Nevada is considered the birthplace of silver-lead smelting in America. Eureka's boom years lasted from 1870-1885. A map of Eureka dated 1878 clearly shows the locations of seven smelter sites and two mill sites within what is now the downtown area (see Figure 1). As early as 1869, lead smelters operated in Eureka. By 1873, 17 furnaces located in eight smelters were operating, with the Richmond Company and Eureka Consolidated smelters being the two largest and accounting for most of the production. In 1890 and 1891, the Richmond and Eureka smelters closed due to falling silver prices. In 1906, the Richmond and Eureka smelters merged to form the Richmond Eureka Consolidated, although a disastrous flood in 1910 ceased smelting operations.

Free Blood Lead Testing

July 24, 2012
9:00 a.m. to 7:00 p.m.

Eureka Elementary School in the Multi-Purpose Room

Free Lead and Arsenic Soil Sampling and Analysis

Date and time to be determined

At properties with signed access agreements

Ore processing and smelting activities produced slag waste material containing lead and arsenic. Smelter fumes emitted from furnace stacks also contained lead and arsenic and were deposited downwind. After smelting operations ceased, additional transport of lead and arsenic to other parts of town has likely occurred as a result of wind, water and human redistribution of byproducts from the smelting process.

Initial Sample Results

NDEP and EPA staff collected 38 soil samples from publicly accessible locations in and near Eureka. Elevated concentrations of lead and arsenic were found in most samples. EPA generally considers concentrations of lead in soil that are below 400 milligrams per kilogram [(mg/kg) equivalent to parts per million] to be safe for residential use. The analytical laboratory reported 10 of the 38 samples below 400 mg/kg, 20 of the 38 samples between 400 mg/kg and 5,000 mg/kg, and 8 samples above 5,000 mg/kg. The highest concentrations of lead were found near the slag piles on the north and south ends of town and in areas associated with former smelter sites. The sample results for arsenic showed a distribution similar to lead.

Next Steps

Blood Testing

In order to evaluate whether health impacts resulting from lead exposure exist in Eureka, NDEP, EPA and the State Health Division will offer free blood lead level testing for all Eureka residents. The test involves a simple finger prick and results are available within a few days. Because young children are most susceptible to lead poisoning, testing is highly recommended for those between 6 months and 6 years of age. Testing is encouraged for all Eureka residents.

If blood lead levels are elevated above federal guidelines, behavior changes to reduce exposure to lead will be recommended (see attached FAQs), and, if warranted, the Nevada State Health Division will assist individuals and their families in locating additional resources.

Soil Sampling

If Eureka residents or property owners wish to have the soil on their property tested for lead and arsenic, NDEP and EPA will provide sampling and testing free of charge. In order to have their property sampled, property owners must grant access by completing a voluntary access agreement form.

Agency Contacts

NDEP, EPA, and the Nevada State Health Division also have staff that you can contact with any questions you might have.

NDEP Contacts:

Jeff Collins

Supervisor
Nevada Division of
Environmental Protection
901 S. Stewart Street, Suite 4001
Carson City, NV 89701
(775) 687-9381
jrcollins@ndep.nv.gov

Vince Guthreau

NDEP Public
Information Officer
Nevada Division of
Environmental Protection
901 S. Stewart Street, Suite 4001
Carson City, NV 89701
(775) 687-9395
vguthreau@ndep.nv.gov

EPA Contacts:

Tom Dunkelman

EPA On Scene Coordinator
U.S. Environmental Protection Agency
901 S. Stewart Street, Suite 4001
Carson City, NV 89701
(775) 687-9480
dunkelman.tom@epa.gov

David Cooper

EPA Community Involvement
Coordinator
U.S. Environmental Protection Agency
(415) 972-3245
toll free (800) 231-3075
cooper.david@epa.gov

Nevada State Health Division Contact:

Martha Framsted

Public Information Officer
Nevada State Health Division
4150 Technology Way
Carson City, NV 89706
(775) 684-4014
mframsted@health.nv.gov

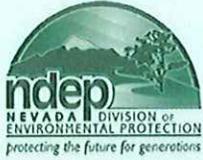


Forms will be provided at the community meeting, at the blood sampling event and upon request. Testing of each property takes about an hour. Several soil samples will be collected. Sampling involves the use of hand tools only; no heavy equipment will be used. Several shallow holes will be dug (about 4 inches in diameter and up to 1 foot deep), and the holes will be backfilled when completed. Sampling will be conducted in August and September at properties for which an access agreement has been signed by the property owner and provided to NDEP or EPA. Properties with elevated lead and arsenic concentrations coupled with the potential for childhood exposure will be considered a priority for additional evaluation and potential action.

Community Involvement Partnership

To most effectively address the lead and arsenic impacts in Eureka, a partnership has formed between a group of Eureka public officials, the Nevada Division of Environmental Protection, the Nevada State Health Division and the United States Environmental Protection Agency. The purpose of this partnership is to provide the most effective investigation and solutions to the situation, and to enhance communications with the public on issues relating to site investigation and potential action.





Town of Eureka Historic Smelters



**Community Meeting to Discuss Elevated Lead and Arsenic Levels in Soil
within the Town of Eureka - Agencies to Offer Free Testing**

For More Information

Websites

Beginning on July 20, two websites with additional information about the investigation will go live. There are a number of ways for the public to learn about the site. Documents relating to the site will be placed in an Information Repository at the Eureka Library and on the following web pages:

Additional information can be found at



www.epaosc.net/eurekasmelter (live by July 20)
www.ndep.nv.gov/eurekasmelter (live by July 20)

Printed on 30% Postconsumer
Recycled/Recyclable Paper



3173
Nevada Division of Environmental Protection
Bureau of Corrective Actions
901 S. Stewart Street
Carson City, Nevada 89701

Return Service Requested

Postal Customer – Eureka, NV – 89316

Lead and Arsenic Exposure: Frequently Asked Questions

How can lead and arsenic soil contamination affect my health?

- Lead and arsenic contamination may pose a health hazard, particularly to children, if ingested or inhaled in sufficient quantities. Individuals can be exposed to lead and arsenic by breathing contaminated dust, by swallowing contaminated soil, and by eating food that has been grown in contaminated soil and not been thoroughly washed.
- Exposure to lead and arsenic contaminated soil poses an additional health risk to young children because of their frequent hand-to-mouth activity and because their brain and immune systems are still developing. Dust from contaminated soil can be brought into the house on shoes and clothes, by pets or by the wind and can end up on indoor surfaces.
- The part of the body most sensitive to lead is the central nervous system, particularly in children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, increased risk of miscarriage, smaller babies, decreased mental ability in infants, learning difficulties, and reduced growth in young children.
- Long-term exposure to arsenic can cause skin color changes, the appearance of growths or warts, damage to the heart, blood vessels, nerves, liver and kidneys.

How can I reduce or prevent exposure to lead and arsenic in soil?

- Practice good hygiene habits. Wash children's hands and faces frequently, especially before eating and bed time. Keep fingernails clean and short. Adults should wash their hands before feeding their children, smoking, eating or drinking. Discourage children from placing fingers and non-food items in their mouths. Frequently clean toys or objects that children put in their mouths.
- Practice good housekeeping techniques. Remove your shoes upon entering your home to prevent tracking contaminated soil inside. Store your shoes at entry ways. If someone in the household works with lead, be sure he or she removes work clothes carefully. Launder these clothes separately. Also, make sure the person showers and washes his/her hair as soon as possible after work. If possible, use shower facilities at work, so lead dust is not carried into your vehicle and into your home. Prevent household pets from bringing in dust on their fur by regularly combing and/or washing pets and vacuuming areas where pets sleep. Vacuum your carpeting, rugs and upholstery often. Regular vacuuming will keep dust from accumulating.
- Create barriers to lead and arsenic impacted soil. Sodding, covering with plastic or cement or excavating and disposing contaminated soil will reduce exposure. The area should be kept moist while working with impacted soil to reduce dust formation. Ensure that any new soil brought to your yard is not also impacted by lead and arsenic before