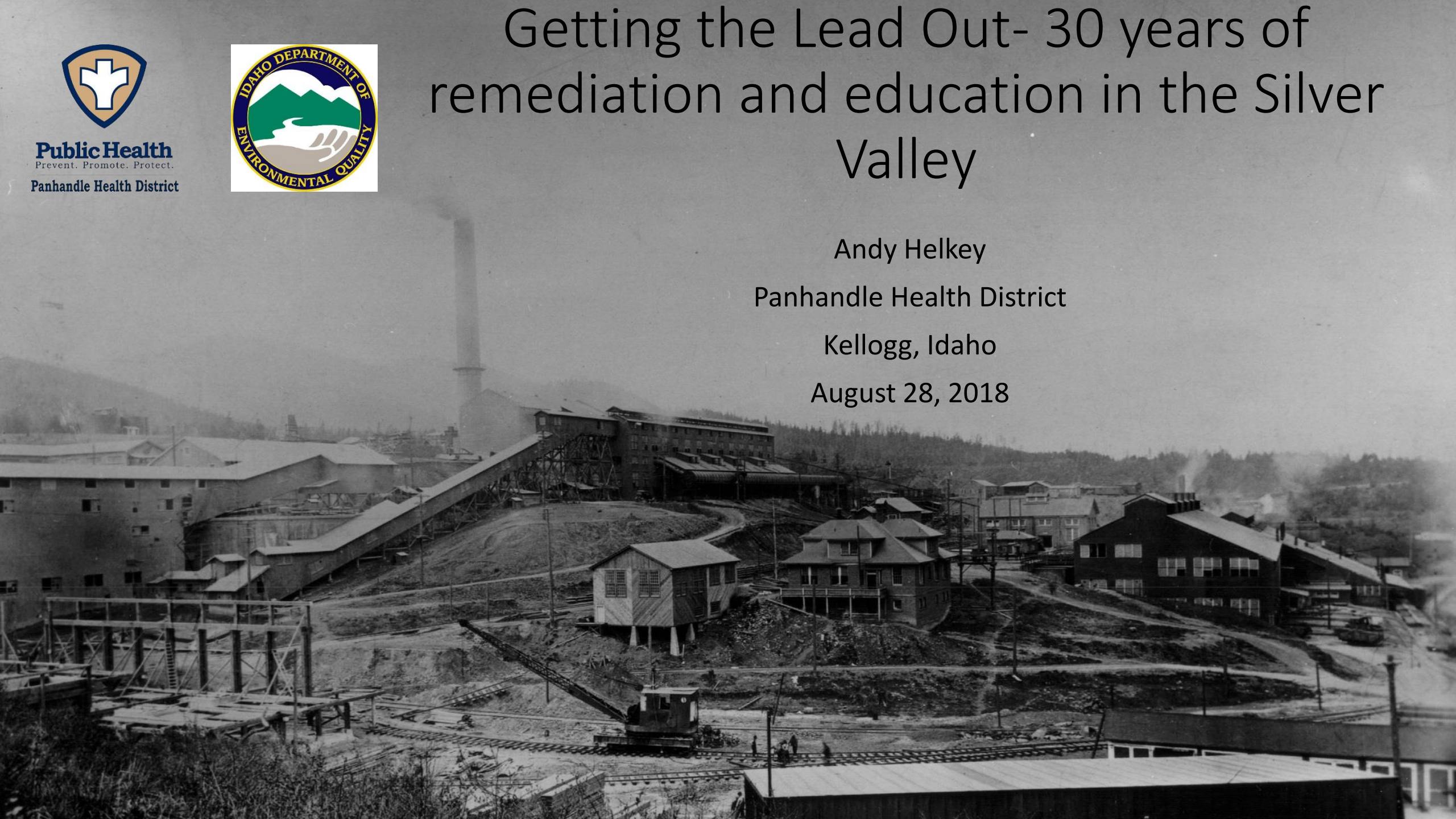
# Getting the Lead Out- 30 years of remediation and education in the Silver Valley

Andy Helkey

Panhandle Health District

Kellogg, Idaho

August 28, 2018



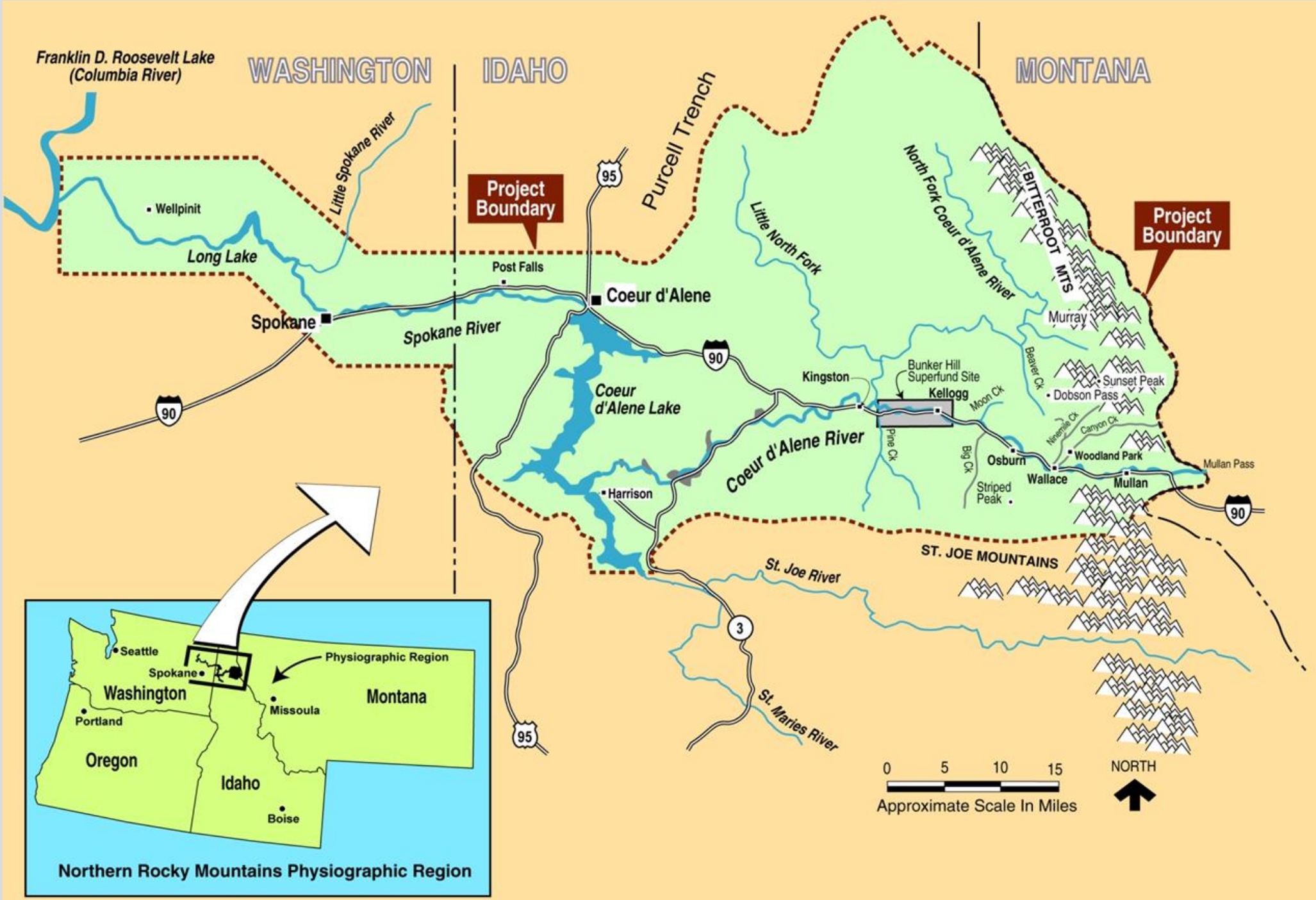
# The Bunker Hill Superfund Site

## ➢What is a Superfund Site?

- Also known as CERCLA for Comprehensive Environmental Response, Compensation and Liability Act.
- A Federal Law designed to clean up sites contaminated with hazardous substances and pollutants
- The Law enables the Environmental Protection Agency (EPA) to identify responsible parties and hold them liable for clean up expenses OR do the clean up themselves  where a polluter could not be identified or could not pay.

# Site Location

- Second Largest Superfund Designation in the Country
- Covers 1500 square mile area reaching from Spokane, WA to Montana



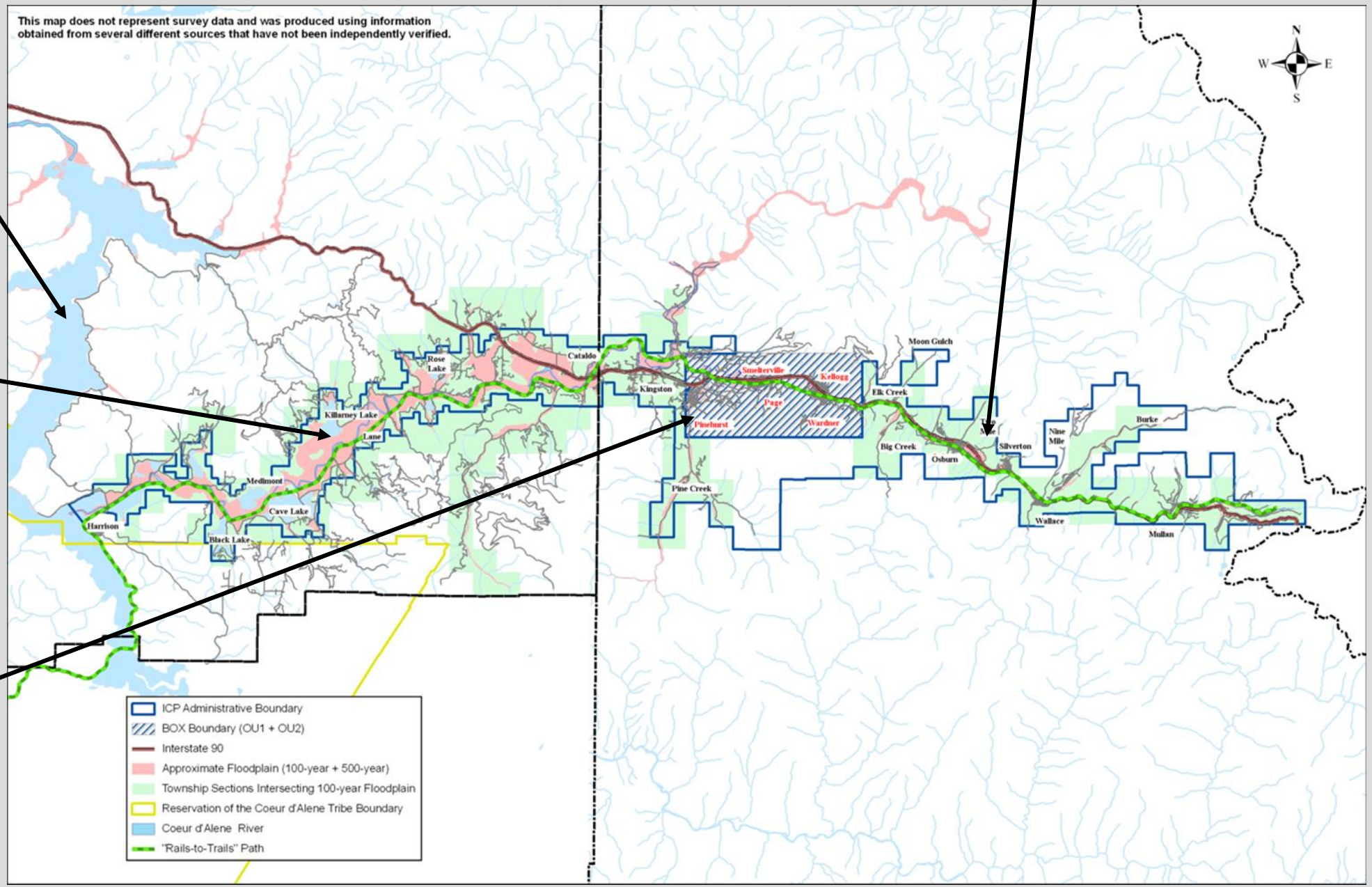
# ICP Administrative Areas

Upper Basin (OU3)

Coeur d'Alene Lake

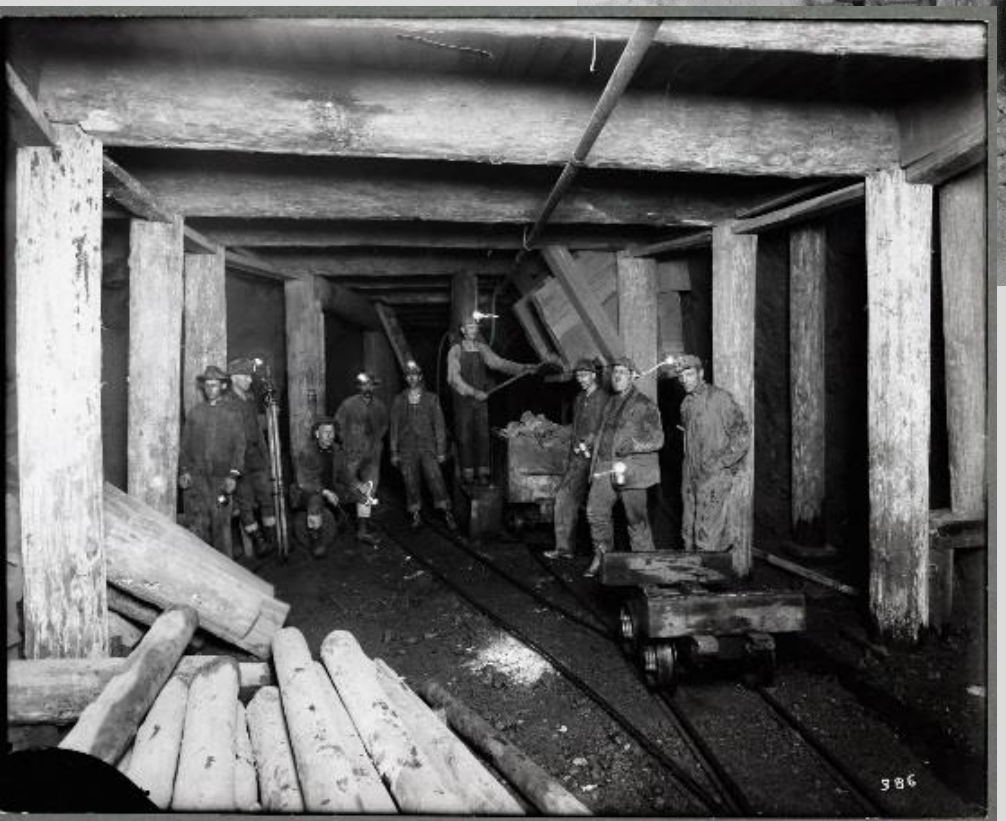
Lower Basin (OU3)

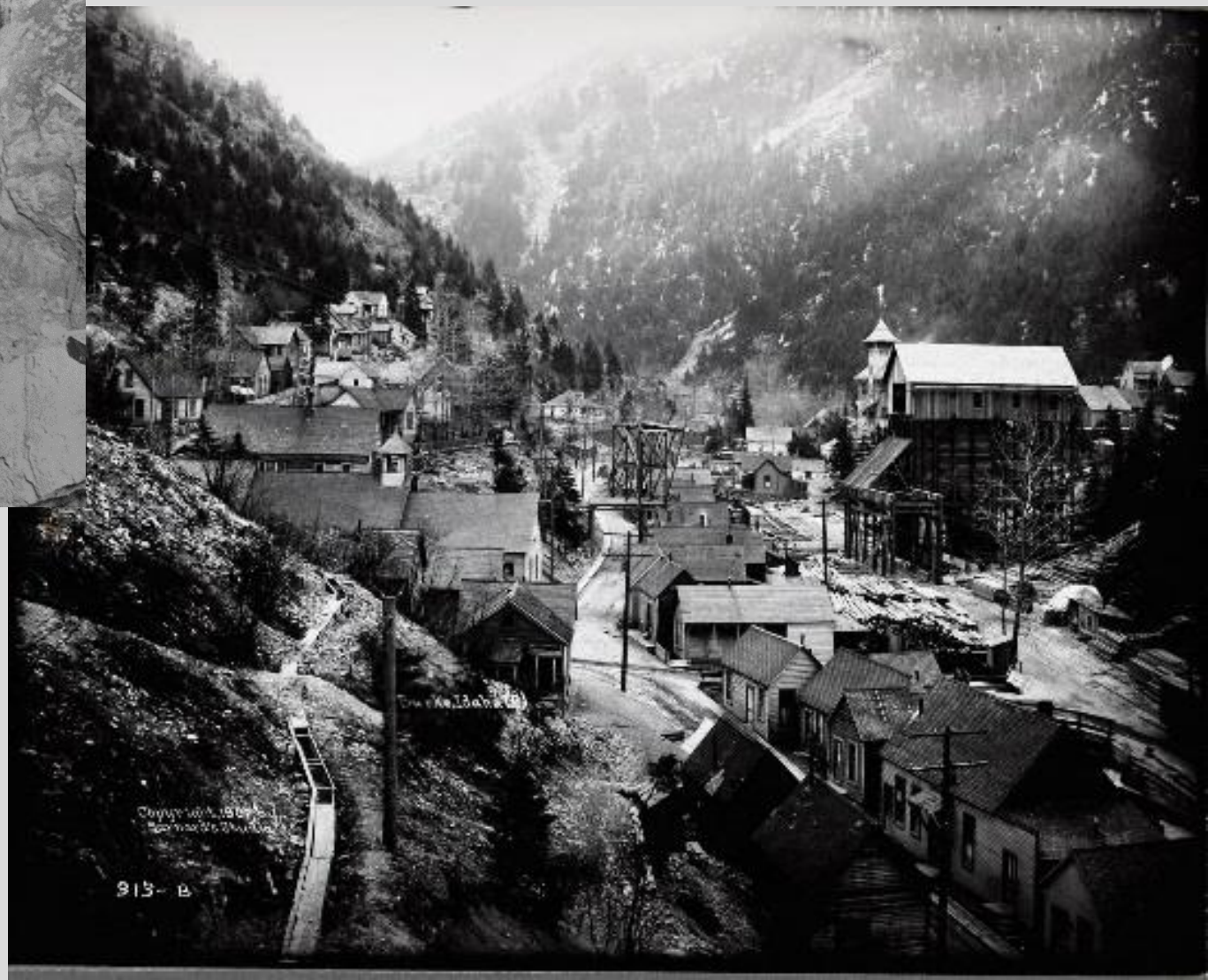
Box (OU1 & OU2)



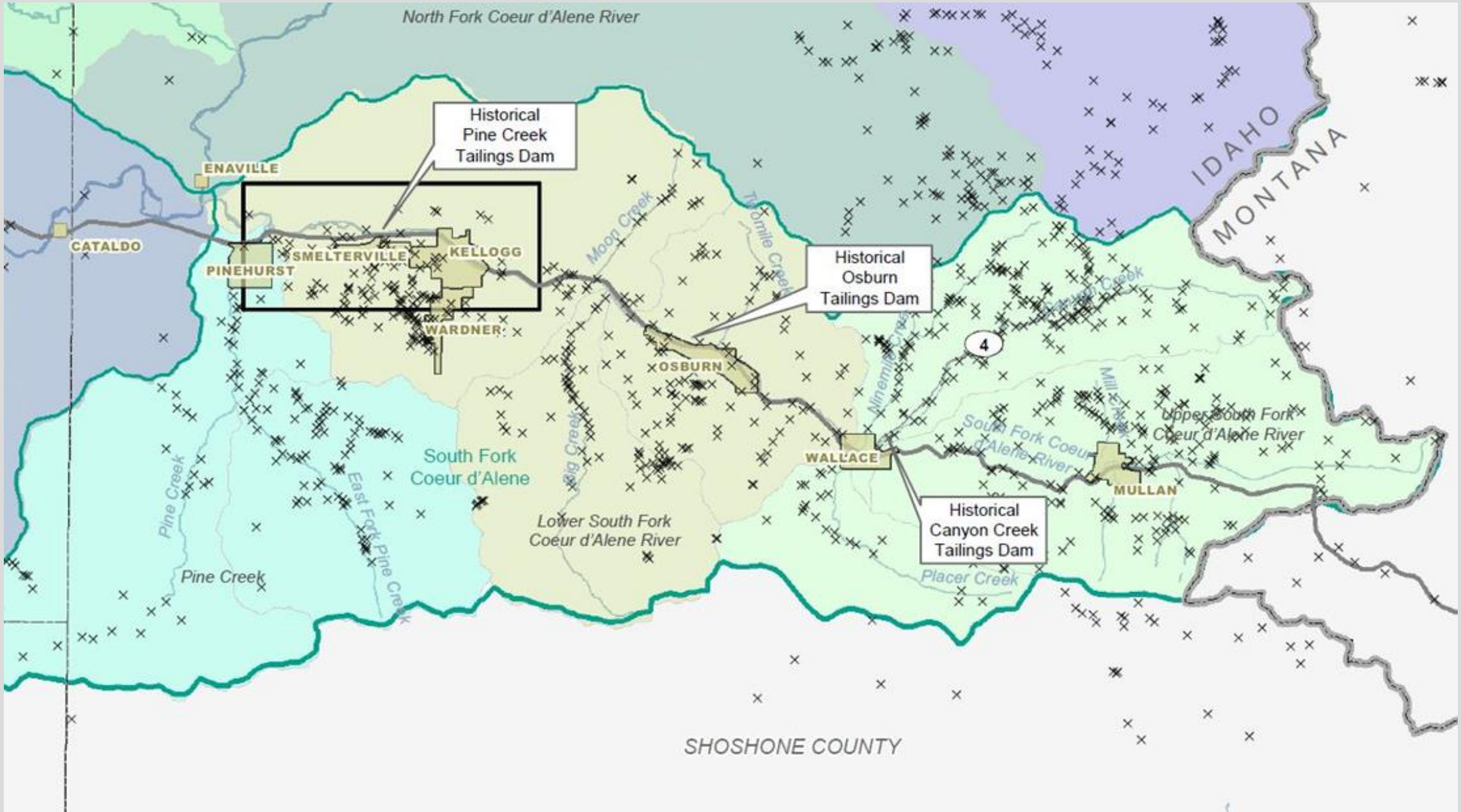
- Area is still known today as the Silver Valley
- Bunker Hill was the largest Lead and Zinc mine in the US

- Mining began in the early 1880's
- Area mineral rich in Lead, Zinc & Silver
- Became the largest and richest Silver producing region in the world



Each black “x” represents a mine or mill site



# Site History

- Mining from 1880 –present day.
- Bunker Hill smelter operated from 1917-1981.
- 1973, largest child lead poisoning event in U.S. history.
- 1981 Smelter closure.
- 1983 BHSS listed on NPL.
- 1986 Emergency Removals/Intervention
- 1989-2004: Box Residential Clean up
- 1994-2000: Industrial Site Clean up
- 1995: Institutional Controls Program Established
- 2002: Basin ROD, Clean Up
- 2007: Basin Institutional Controls Program Established

# Source Areas

- CdA Basin impacted by over 100 years of mining
- Until  1968, 2200 tons/day of mine waste discharged to South Fork CDA River
- Primary source areas  remain in the Upper Basin
- Most adjacent to streams with imminent potential of mass wasting into surface water
- Estimated over 100 million tons of mine waste, including 2.4 billion pounds of lead, dispersed over 1,000’s of acres

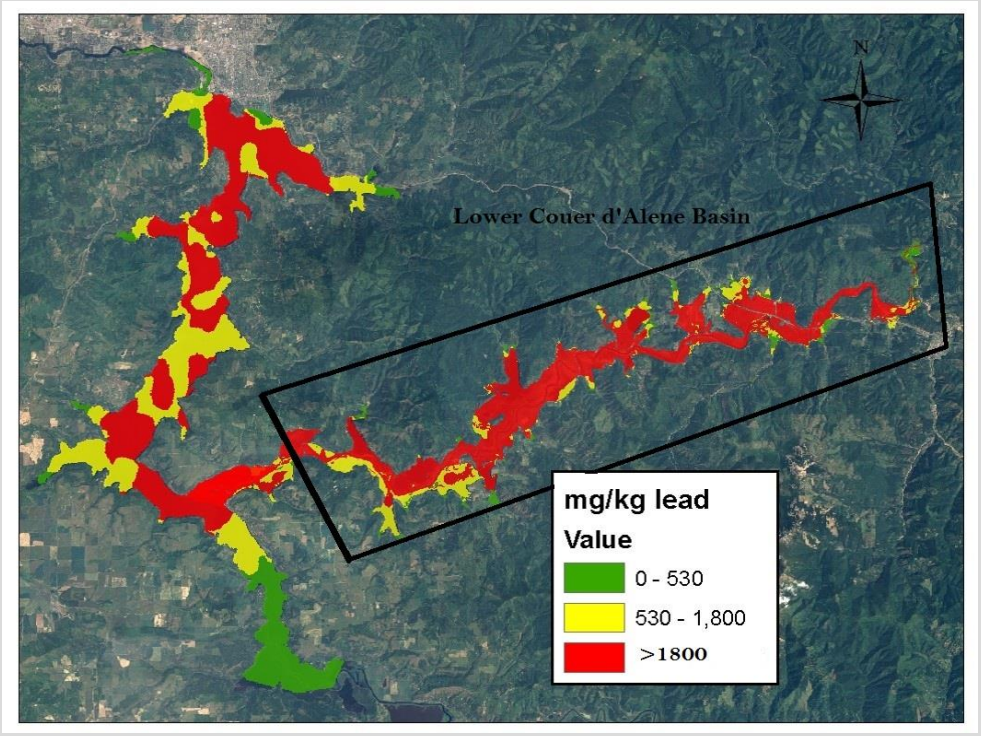
- **Silver mining and milling in Upper Basin (“Silver Valley”)**
- **> 60 million tons of metals-contaminated tailings discharged directly into rivers**
- **Direct tailings discharges - 1890s to 1968**
- **Downstream river sediments as high as 7% Pb by mass**

Osburn Tailings Dam 1920

# Mine and Mills Directly Discharged Waste Materials Into the Rivers & Streams

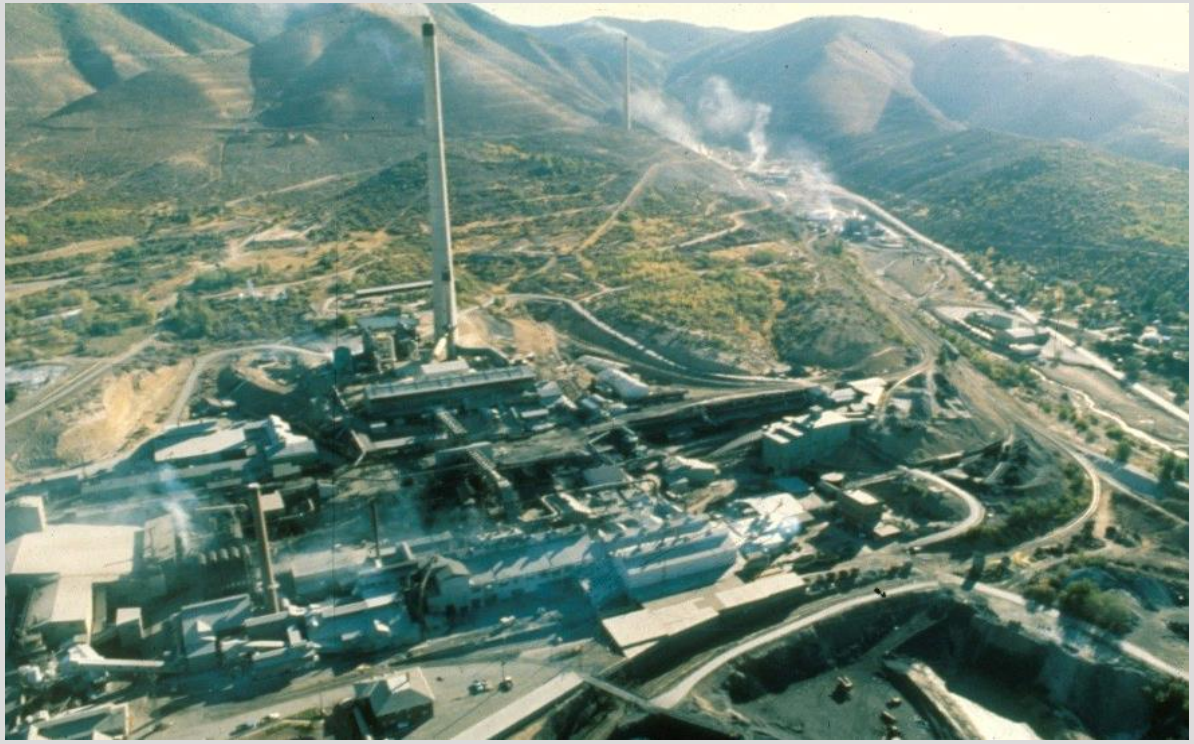
# Widespread Contamination

- Communities utilized and built on top of contaminated sediments
- Heavy metals can be encountered at historic mine sites, across the flood plain, and along the banks of the Coeur d'Alene River and its tributaries
- Recreational activities can lead to substantial increases in lead uptake and absorption
- Contaminated material tracked home from un-remediated areas can lead to elevated lead levels in house dust creating an additional exposure source



# Bunker Hill Company
# Mining and Smelter Complex

- Produced 1/3 the nation's lead, ½ the silver, ¼ zinc;
- Idaho's largest employer
- $1M/week payroll



# Bunker Hill Smelter & Zinc Complex

1917: Lead Smelter began operating

1928: Zinc Plant Completed

1936: Cadmium Plant Installed

1954: Sulfuric Acid Plant Constructed

1960: Phosphoric acid plant built

# Bunker Hill Smelter

- Taller stacks were constructed in 1974 to try and get the smelter emission to rise up and out of the valley.
- 715 ft Lead smelter stack
- 610 ft Zinc smelter stack

# History

## Airborne Pollution

Hillsides around the smelter

- Bunker Hill bought “smoke easements” for the areas most likely to be affected by the emissions. The company had rights to the air over 7,000 acres of private land by 1940s
- Company built a solarium with ultraviolet lights to allows the workers and children in the community to get substitute light


Kellogg 1958: looking NW

# Airborne Pollution


- Bunker Hill Smelter was in operation from 1917-1981
- Sept of 1973 baghouse fire burnt through the smelter's primary pollution control. This resulted in uncontrolled emissions.
- Particulate emissions went from 10-20 tons per month up to 160 tons per month, containing 50-70% lead.
- In the 1970s blood lead monitoring began. 99% of children tested in 1974 had a blood lead level of 40 µg/dL or greater (high of 164 µg/dL), average was 67.4 µg/dL.
- Smelter shut down in December of 1981

# Additional sources

# How do you clean this up?

# Remediation

- Individual properties were sampled (Usually to a depth of 18”)
- Contaminated soil is removed to prescribed depth (Usually 6-12”) and replaced with clean materials
- Contaminants or native soils below the 12” depth remain on site.
- Thus creating a “barrier” of clean material
- If contaminants below the clean barrier sampled ≥ 1000ppm Lead or ≥ 100 ppm Arsenic a barrier fabric is installed to denote where the clean soils stops

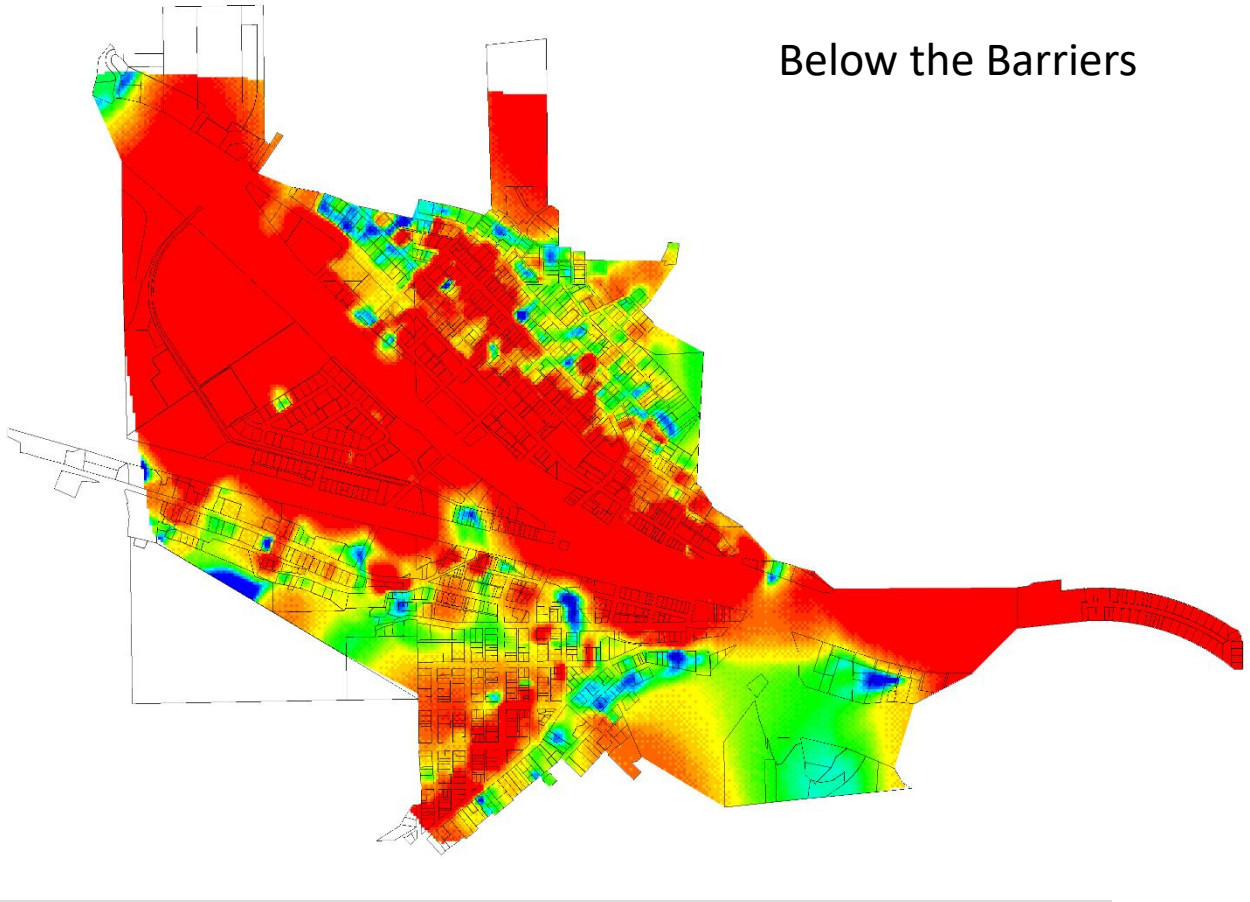
Soils below this 12” barrier: 27,600 ppm Lead
1100 ppm Arsenic

# Work in Community Areas

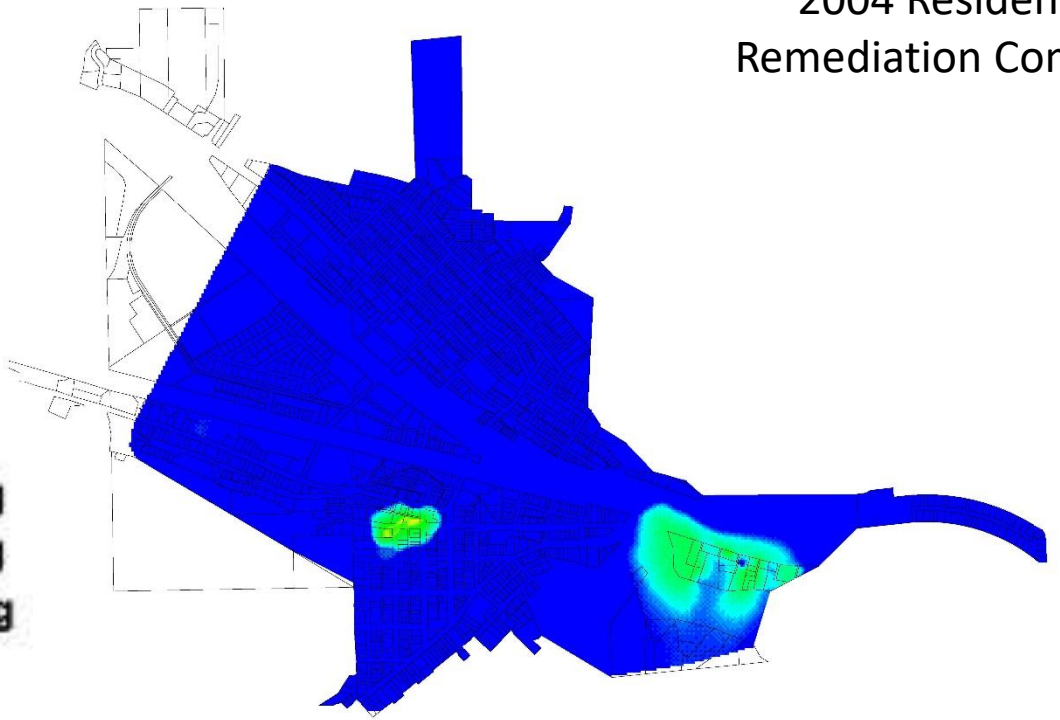
- Property Remediation

- Roads

# Remedy of Partial Removals Requires Management



Below the Barriers



2004 Residential Remediation Complete

0 - 349.9 mg/kg
350 - 499.9 mg/kg
500 - 999.9 mg/kg
1,000 - 2499.9 mg/kg
2500 - 4999.9 mg/kg
5,000 and greater mg/kg

# Partial Removal Issues

- Contaminants left under homes
- Beneath pavement and concrete
- Behind Retaining walls
- Under decks

# Institutional Controls (IC's)

- How are we going to protect and manage this remedy?

  - IC's are "non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and protect the integrity of the remedy."

  - The Institutional Controls Program (ICP) was established under Panhandle Health District. Goals of the ICP are:

    - ✓ Protect the Remedy
    - ✓ Protect Public Health
    - ✓ Assist with Land Transactions within the Site Boundary

Public Health
Prevent. Promote. Protect.
Panhandle Health District

# Institutional Controls Program (ICP)

- **The Institutional Controls Program (ICP)** is a locally enforced set of rules and regulations designed to ensure the integrity of clean soil and other protective barriers placed over contaminants left throughout the BHSS.

- The ICP also provides education, sampling assistance, clean soils and gravels for small projects needing ≤ 1 cubic yard, pick-up and disposal of contaminated materials produced by small projects, and permanent disposal areas for contaminated materials generated by projects site wide.

# Guiding Principals for Developing the ICP

- Institutional Controls must minimize inconvenience, cost and loss of land use options to local residents

- Institutional Controls utilize, to maximum extent practicable, existing control mechanisms and local agencies

- Institutional Controls must be self-sustaining and minimize additional cost to local government, residents, or property owners

# Getting it Started

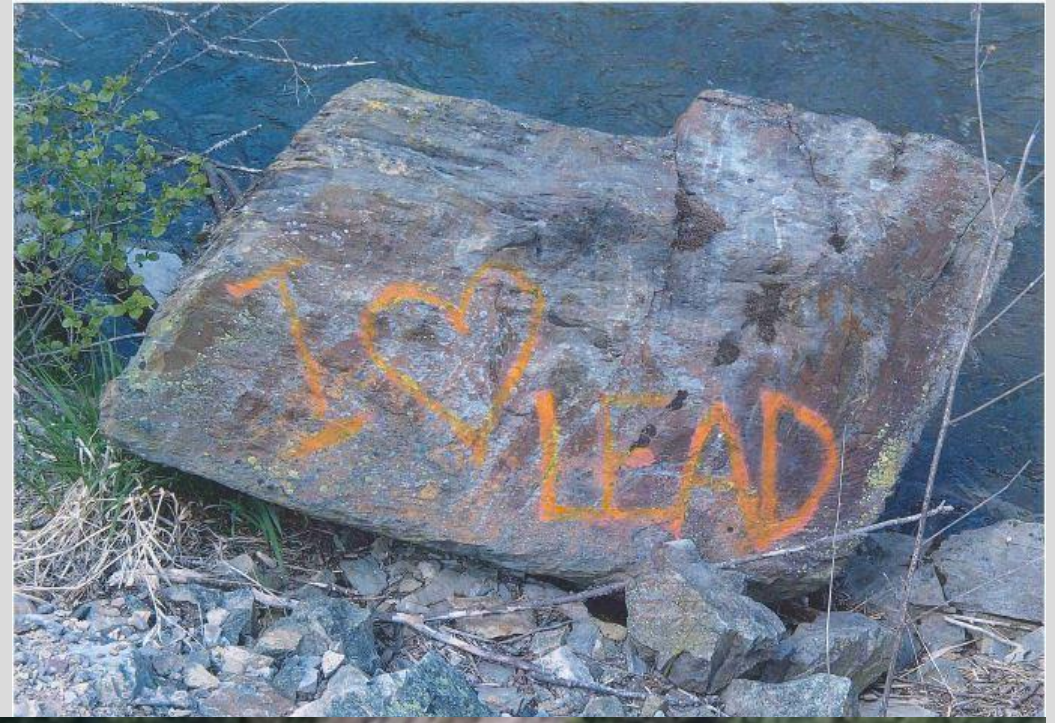
- It was a 7 year process to create an ICP for the BHSS
  - Took time to refine it and ensure it would be a right fit for this community
- Goal was to make it community involved process
  - Meetings were open to the public
  - Public comments and suggestions were welcomed
  - PHD worked closely with counties, cities, utility companies & districts and private contractors that would be directly impacted
- Presented to the State Legislature at the right time

# ICP Management

- What do we Regulate?
  - Excavation & Grading Projects
  - Barrier maintenance
  - Contaminant Management & Disposal
  - Contractor Licensing
  - Building Renovation & Demolition
- Property Disclosures
  - Provide all federal and state required information to new property owners and potential buyers
  - User friendly disclosure system for realtors, property managers and lending agencies
- Education
  - Educate the public and contractors on Health & Safety issues
  - Teach everyone how to live safe with lead and other heavy metals
  - All Contractors working in the site, must be trained and licensed by the ICP

# Challenges

- Protecting the Remedy
  - Fragile system
  - Required to protect barriers in perpetuity
- Funding
  - Settlement funds will be exhausted at some point
  - Cities, residents and municipalities are tasked with maintaining the clean up, yet do not have the funding to do so
- Disposal
  - Limited land for disposal
  - Managing those disposal sites
- Public
  - Refusals
  - Following Rules
  - Complacency, insularity and over all defiant attitude of community
- Large Geographic Area to Oversee
  - Have two full time inspectors, but thousands of acres to oversee
  - Work Monday-Fridays, no inspectors on weekends
  - Private property and inaccessible areas




# Infrastructure and Economic Sustainability

- Unique clean-up with the residents and local governments taking on the responsibility for O&M of the remedy into perpetuity
- Revitalization of local economy and preservation of infrastructure is key to protecting the Superfund Remedy

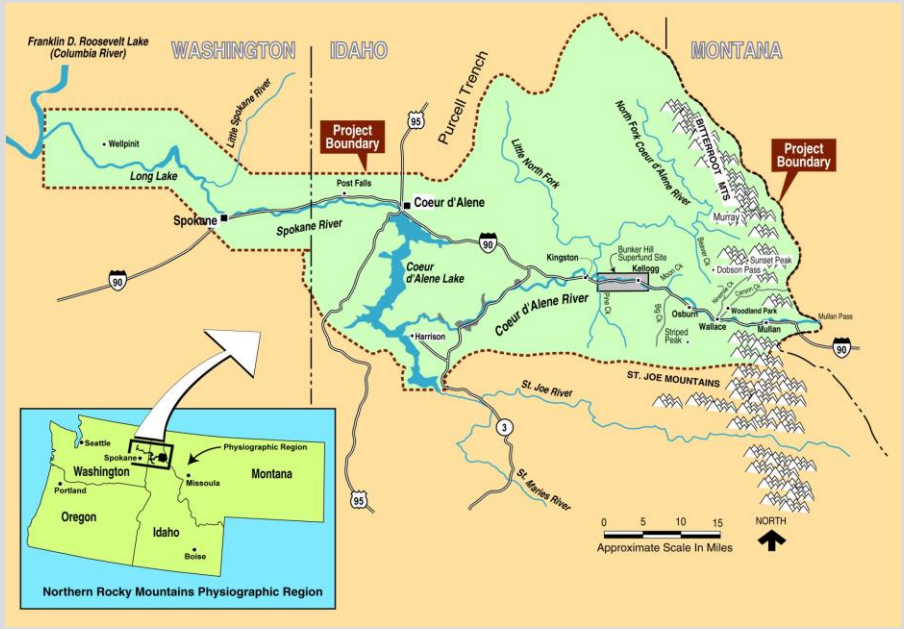
# Many Stakeholders Involved

- Citizens
- Coeur d'Alene Basin Commission
- States of Idaho, Washington
- Coeur d'Alene Tribe, Spokane Tribe
- Natural Resource Trustees
- Community leaders
- Panhandle Health District

***3 Counties***

US Forest Service

# Institutional Control Programs cross cultural work with Australia


https://youtu.be/7SgrrNoy30Q

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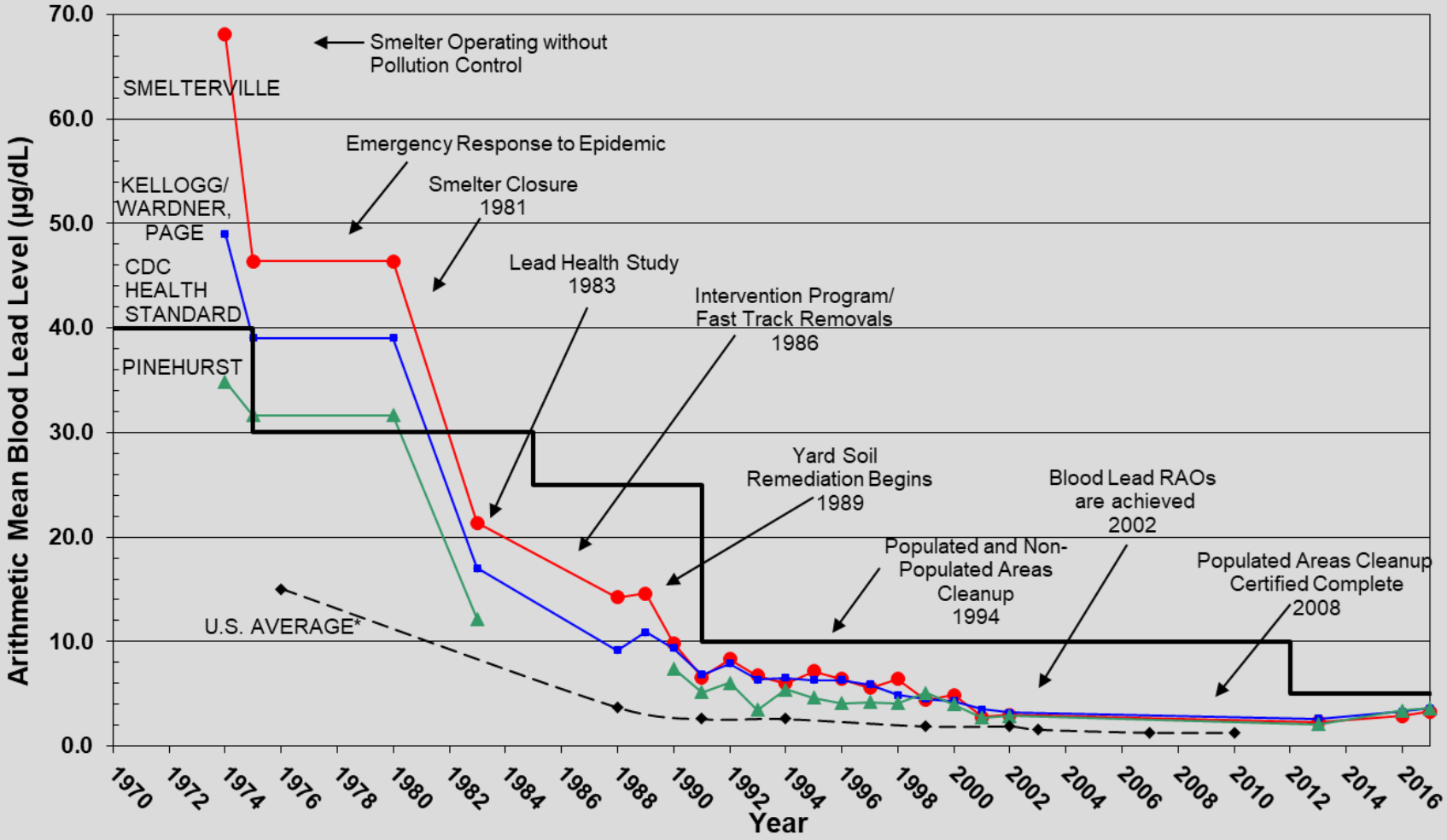
Panhandle Health District

# Lead Health Intervention

- Panhandle Health District offers free year round testing through Shoshone Medical Center.
- Annual summer screening program for children and pregnant mothers.
- Education program for children and adults.
- Environmental consultations and follow-up testing are offered to individuals with elevated BLL.

# Bunker Hill Box Average Blood Lead: 1974-2017




*Ref.=(Mahaffey et al. 1982; Pirkle et al. 1994; Pirkle et al. 1998 ; Lofgren et al. 2000; CDC 2013)

# 2017 Blood Lead Summary Statistics: Box (age 0-6)

| | |
|---|---|
| Total Number of Children (N) | 124 |
| Minimum (µg/dL) | 1.4 |
| Maximum (µg/dL) | 13 |
| Average (µg/dL) | 3.5 |
| Standard Deviation | 2.2 |
| Geometric Mean (µg/dL) | 3.0 |
| Geometric Standard Deviation | 1.7 |

| | **Number** | **Percentage** |
|---|---|---|
| Children's blood lead ≥ 5 µg/dL | 17 | 14% |
| Children's blood lead ≥ 10 µg/dL | 5 | 4% |
| Children's blood lead ≥ 15 µg/dL | 0 | 0% |

# 2017 Blood Lead Summary Statistics: Box (other non-eligible children*)

| | |
|---|---|
| Total Number of Children (N) | 18 |
| Minimum (µg/dL) | 1.4 |
| Maximum (µg/dL) | 17 |
| Average (µg/dL) | 3.4 |
| Standard Deviation | 3.5 |
| Geometric Mean (µg/dL) | 2.7 |
| Geometric Standard Deviation | 1.8 |

| | **Number** | **Percentage** |
|---|---|---|
| Children's blood lead ≥ 5 µg/dL | 1 | 6% |
| Children's blood lead ≥ 10 µg/dL | 1 | 6% |
| Children's blood lead ≥ 15 µg/dL | 1 | 6% |

*age 7-14 years

# 2017 Blood Lead Summary Statistics: Basin (age 0-6)

| | |
|---|---|
| Total Number of Children (N) | 105 |
| Minimum (µg/dL) | 1.0 |
| Maximum (µg/dL) | 20 |
| Average (µg/dL) | 4.3 |
| Standard Deviation | 3.4 |
| Geometric Mean (µg/dL) | 3.5 |
| Geometric Standard Deviation | 1.8 |

| | **Number** | **Percentage** |
|---|---|---|
| Children's blood lead > 5 µg/dL | 23 | 22% |
| Children's blood lead > 10 µg/dL | 8 | 8% |
| Children's blood lead > 15 µg/dL | 1 | 1% |

# 2017 Blood Lead Summary Statistics: Basin (other non-eligible children*)

| | |
|---|---|
| Total Number (N) | 7 |
| Minimum (µg/dL) | 2.1 |
| Maximum (µg/dL) | 5.0 |
| Average (µg/dL) | 3.3 |
| Standard Deviation | 1.1 |
| Geometric Mean (µg/dL) | 3.2 |
| Geometric Standard Deviation | 1.4 |

| | **Number** | **Percentage** |
|---|---|---|
| Blood lead > 5 µg/dL | 1 | 14% |
| Blood lead > 10 µg/dL | 0 | 0% |
| Blood lead > 15 µg/dL | 0 | 0% |

*age 7 -14 years

# Contributing factors to higher numbers

- 2017 screening was 4 weeks later in the summer, leads to increased exposure time.
- Record high temperatures lead to increased recreation along un-remediated areas of CDA Basin.  Especially the South Fork.
- Precipitation was well below average increasing dry dusty conditions.
- Overall participation increased.  Significant increase in individuals making over $40,000 participated.
- Changing demographic of individuals raising children.  Many were unaware if their yard had been remediated or that they were living in a Superfund site.

# Recreation

# Bad Habits


Test-Soil
07/31/17 #5
Detected PPM +/-
Pb 1.12% .1
As 173 51
Show hidden elements
07/31/17 02:54 PM

# Identified Sources

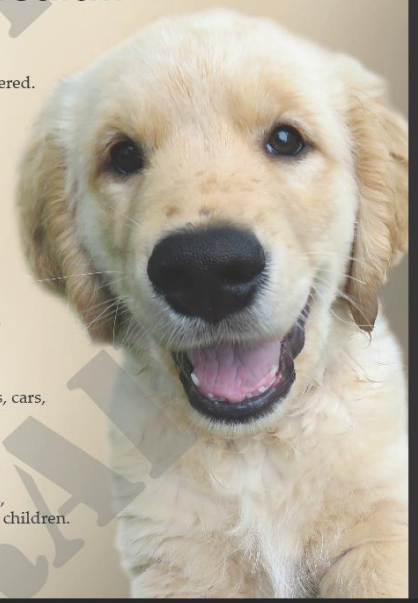
- Disturbed Barriers
- Strong recreational link
- Occupational
- Antique jewelry
- Lead based paint products

# Public Health Signs

## CAUTION

High levels of lead, arsenic, and other heavy metals from past mining activities are found in the soil, sediments, and water at this location.

### Play Safe. Protect Your Health.



**Pack in your water.**
Don't use river water for drinking, cooking, or washing, even if it is filtered.

**Wash before you eat.**
Wash your hands and face with bottled water.

**Eat on a clean surface.**
Use a table or blanket, not bare ground.

**Cover your face.**
When off-roading, cover your nose and mouth with a bandana or mask to avoid breathing in dust.

**Clean before you leave.**
Remove dirt from clothes, toys, pets, cars, and equipment. Dirt tracked home may result in future lead exposure.

**Follow fish advisories.**
Follow fish consumption advisories, especially for pregnant women and children.

Panhandle Health District
Healthy People in Healthy Communities

Contact PHD at:
(208) 783-0707
or visit: deq.idaho.gov/playclean

## Play Safe
## Protect Your Health

High levels of lead, arsenic, and other heavy metals from past mining activities are found in the soil, sediments, and water at this location.

**Pack in your water.**
Don't use river water for drinking, cooking, or washing, even if it is filtered.

**Wash before you eat.**
Wash your hands and face with bottled water.

**Eat on a clean surface.**
Use a table or blanket, not bare ground.

**Cover your face.**
When off-roading, cover your nose and mouth with a bandana or mask to avoid breathing in dust.

**Clean before you leave.**
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## CAUTION

High levels of lead, arsenic, and other heavy metals from past mining activities are found in the soil, sediments, and water at this location.

### Play Safe. Protect Your Health.

- Stay out of old mines, mining structures, and buildings.
  Abandoned buildings, mining structures, and mine openings are dangerous due to rotting wood, rusty nails, falling debris, unstable rock, open shafts, and oxygen-depleted air. Buildings and structures could collapse at any time. Stay out and stay alive.
- Stay on trails and off mine tailing piles.
- Wash your hands with clean water or wipes before eating or drinking.
- Do not smoke at site—dry wood is extremely flammable.
- Avoid the creek for swimming or washing hands.
- Wear proper off-road gear including dust protection.
- Clean before you leave.
  Remove dirt from clothes, toys, pets, cars, and equipment. Dirt tracked home may result in future lead exposure.

**Please respect private property.**

Panhandle Health District
Healthy People in Healthy Communities

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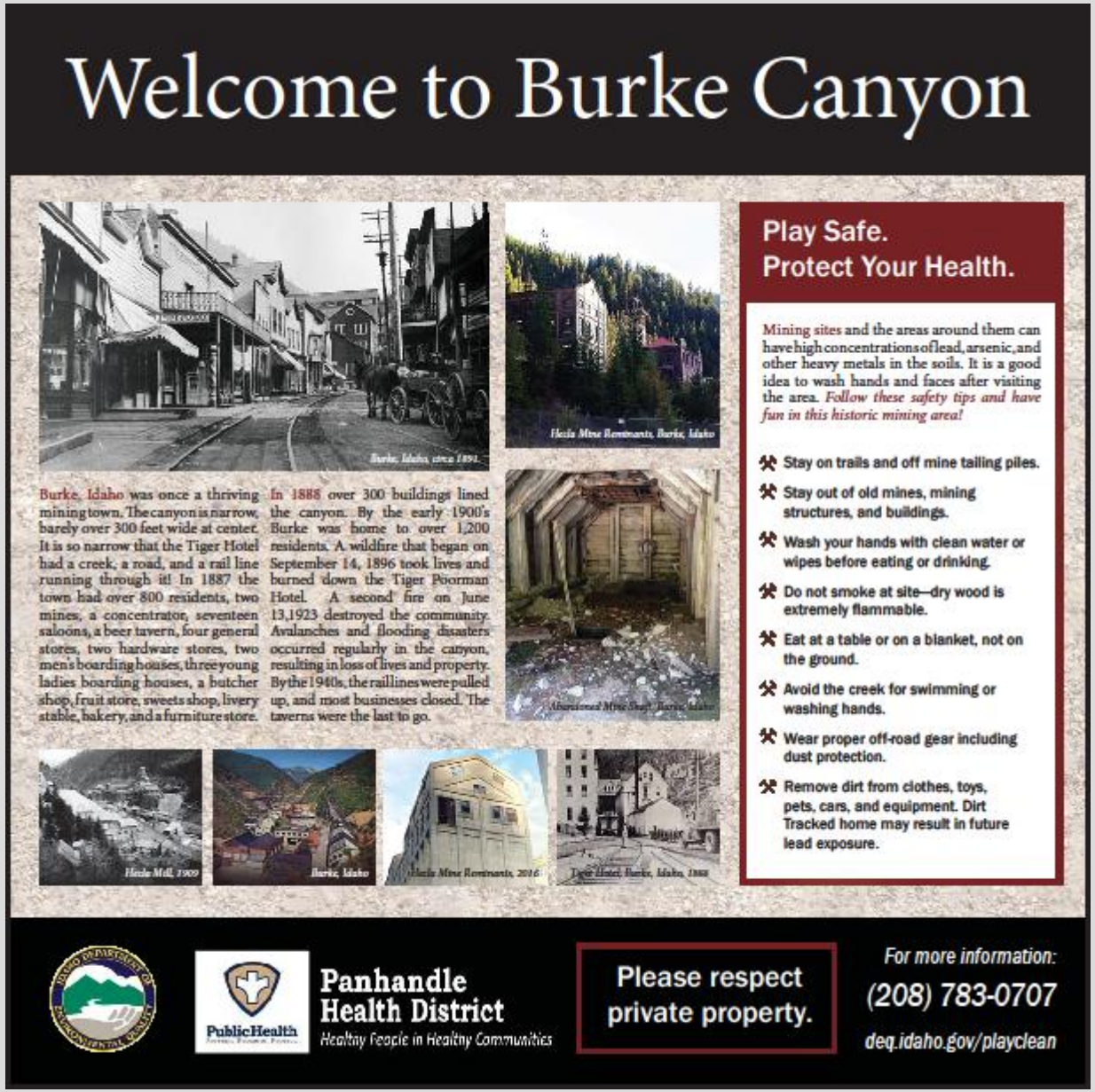
or visit: deq.idaho.gov/playclean

# New Signage


Protect Your Health
The soils and sediments in this area contain harmful levels of lead and other metals. Small children and pregnant women are at the greatest risk from exposure.
KEEP CLEAN ! Wash your hands and face before you eat anything. Wash toys, bottles, and pacifiers if they have been in contact with soil or dust. Remove loose soil from your clothing, camping equipment, and pets before leaving the area. Wash all items when you return home.
EAT CLEAN ! Drink, cook, and wash only with water from home or other approved source. Do not use river water. Always eat at a table or clean surface off the ground. Clean fish thoroughly and eat only fish fillets.
PLAY CLEAN ! Children should play in grassy areas and avoid loose soil, dust, and muddy areas. No mud pies.
Healthy Choices.....Healthy Kids !
For more information call Panhandle Health District / Kellogg at (208) 783-0707
07/02/2014


Welcome to Burke Canyon
Burke, Idaho was once a thriving mining town. The canyon is narrow, barely over 300 feet wide at center. It is so narrow that the Tiger Hotel had a creek, a road, and a rail line running through it! In 1887 the town had over 800 residents, two mines, a concentrator, seventeen saloons, a beer tavern, four general stores, two hardware stores, two men's boarding houses, three young ladies boarding houses, a butcher shop, fruit store, sweets shop, livery stable, bakery, and a furniture store. In 1888 over 300 buildings lined the canyon. By the early 1900's Burke was home to over 1,200 residents. A wildfire that began on September 14, 1896 took lives and burned down the Tiger Poorman Hotel. A second fire on June 13,1923 destroyed the community. Avalanches and flooding disasters occurred regularly in the canyon, resulting in loss of lives and property. By the 1940s, the rail lines were pulled up, and most businesses closed. The taverns were the last to go.
Play Safe.
Protect Your Health.
Mining sites and the areas around them can have high concentrations of lead, arsenic, and other heavy metals in the soils. It is a good idea to wash hands and faces after visiting the area. Follow these safety tips and have fun in this historic mining area!
Stay on trails and off mine tailing piles.
Stay out of old mines, mining structures, and buildings.
Wash your hands with clean water or wipes before eating or drinking.
Do not smoke at site—dry wood is extremely flammable.
Eat at a table or on a blanket, not on the ground.
Avoid the creek for swimming or washing hands.
Wear proper off-road gear including dust protection.
Remove dirt from clothes, toys, pets, cars, and equipment. Dirt Tracked home may result in future lead exposure.
PublicHealth
Panhandle Health District
Healthy People in Healthy Communities
Please respect private property.
For more information:
(208) 783-0707
deq.idaho.gov/playclean

# Play Clean Brochure

## You May Encounter Contaminants at:

**Historic mine and mill sites**

**Shorelines**

**Floodplain deposits**

*Prior to the release of mine waste contamination, swimming in the Lower Coeur d'Alene River was a common practice among the Tribe. Today, Tribal members are confined to swim in uncontaminated areas in the Coeur d'Alene Basin.*

The Schitsu'umsh, "those who were found here" (The Coeur d'Alene Tribe) have long used the Basin for every aspect of their lives and they view this land as given to them by the Creator. Today, the Tribe maintains a strong spiritual connection to their aboriginal territory.

The Schitsu'umsh continued to use the Lower Coeur d'Alene River Basin until the late 1800's, when oral history says that the River "turned white." Recognizing the health risks, they moved many of their activities to other parts of the Basin that were free of contamination. Today, the Schitsu'umsh long to reconnect to their aboriginal territory and their hope is that through clean-up and restoration, this will become a reality.

**Get Cleanup Information** EPA Region 10, Seattle Community Involvement Coordinator

**(206) 553-1896**

www.epa.gov/r10earth/bunkerhill

## Get the Best Information

**Lead Health Intervention Program**

Lead health effects commonly go unrecognized. Ask about risk of exposure, blood lead screening, and education programs. We recommend annual lead testing for all children, especially those living or recreating in the Coeur d'Alene Basin.

Panhandle Health District

**(208) 783-0707**

www.panhandlehealthdistrict.org

There is a resource available to help you make decisions that protect you, your property, and water quality on or near waterways in the Coeur d'Alene Basin. For more information, contact the CdA Lake Management coordinators at **(208) 666-4623**, **(208) 667-5772**, or go to http://ourgem.org/landowners.php.

**Riley and Rita Raccoon say: "Be Smart Around Lead,**

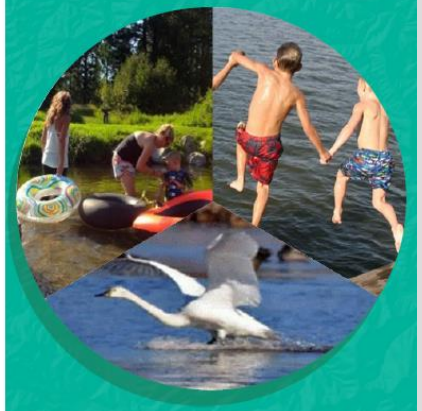
Print "Riley's Family" Coloring and Activity Book Online!

Idaho Department of Environmental Quality

**(208) 783-5781**

www.deq.idaho.gov/PlayClean

## Recreate Safely in the Coeur d'Alene Basin



# PLAY CLEAN

www.deq.idaho.gov/PlayClean

www.facebook.com/CDAbasin

# Trail of the Coeur d'Alene's

## Healthy Recreation in the Coeur d'Alene Basin

The discovery of silver in the 1880's led to the "Silver Valley" becoming one of the most productive mining areas in the U.S. Common industry practices of the time and natural processes like flooding, caused heavy metal contaminants to be spread throughout the Basin. Environmental cleanup has been ongoing for decades. Cleanup continues to protect human health and provide ecological restoration. Heavy metals that pose a risk to human health are still encountered along shorelines, floodplains, and historic mine and mill sites. One of the most common contaminants is lead. Exposure to lead and other heavy metals can occur through ingestion and inhalation of contaminated soils. Lead exposure can affect nearly every system in the body and often occurs with no obvious symptoms. No safe blood lead level in children has been identified.

**It is easy to reduce exposure and enjoy your time recreating in the Coeur d'Alene Basin. Follow the safety tips in this brochure.**


## Protect Yourself: Keep Clean, Eat Clean, Play Clean

* Wash hands and face before eating.
* Bring water for drinking, cooking, and washing. ***Do not*** use water from the river - even if it is filtered!
* Eat on a table or on a blanket in grassy areas for protection.
* Remove dirt from clothes, toys, pets, and equipment ***before*** leaving area.
* Soil tracked home from recreation areas becomes an exposure source. Keep yourself and belongings clean.


- Boat Launches
- Point of Interest
- Chamber of Commerce
- *Towns*
- Trail of the Coeur d'Alenes
- Major Highways
- Lakes

## Recreate Safely:

* Wear bandanas or other dust-coverings over the mouth and nose when riding off-road trails.
* When you use the *Trail of the Coeur d'Alene's*, stay on the trail and in designated areas.
* Check fish consumption advisories. It is best to eat fillets only.
* Do not harvest edible plants from floodplain areas.
* Prolonged exposure increases risk, especially for young children and expecting mothers.

# Recreation Posters

**What potential health risks might someone encounter here?**

Exploring the area either on ATVs or on foot can be a great adventure. Hikers and ATV riders should avoid hillsides covered with mine waste rock and tailings. Disturbing the hillsides can cause exposure to heavy metals that you don't want to breathe or bring home. The creek may look inviting, but bare hillsides and rock piles are your clue to stay away.

***East Fork Nine Mile***

**What do you think is in this water?**

The water looks clean. BUT…. Unfortunately, you can't see, taste or smell lead. We know that there are high levels of lead in creek and river banks along the South Fork and Main Stem of the Coeur d'Alene River because we can test for lead. The bank along this creek was tested by PHD and is 13,000 parts per million (ppm) lead. That's a lot of lead!

***Canyon Creek***


## COLORING CONTEST

Enter for a chance to **WIN!** One Free Bike Rental from Excelsior Cycle or One Free Season Pool Pass to City of Kellogg or City of Wallace Pools

**Excelsior Cycle** **Kellogg Pool** **Wallace Pool**

**Two winners will be selected from ages 3-8 years old. Submit entries to Wallace Harvest Foods, or Stein's Market in Osburn or Kellogg. Entries Due by June 8th.**

## WE PLAY CLEAN

We use areas made for picnicing, camping and bike riding.


We stay on the bike trail and follow the safety signs.

**Play smart around lead and other elements in the soil**

- Wash hands before eating • Eat on a clean table
- Wash play-clothes • Leave dirt outside
- Stay on the bike trail & read health signage

Public Health Panhandle Health District — Find out about free, confidential, professional blood lead testing for kids. Call 208-783-0707

To find out more visit www.deq.idaho.gov/playclean

Name: Mi Wo W Paschert Age: 6

## Life-Long Good Health

Because lead exposure often occurs with no obvious or immediate symptoms, it frequently goes unrecognized. Even small amounts of lead exposure during summer recreation can have an effect, especially for young children.

Kellogg Panhandle Health District offers free blood lead testing for children and expecting mothers. If you live or recreate in the Coeur d'Alene River Basin call the Kellogg Panhandle Health District to schedule an appointment for a free blood lead screening.

**Free Blood Lead Testing**

**114 W. Riverside Ave, Kellogg**

**July 27-31** 9:00am-6:00

**August1** 10:00am-2:00

**(208) 783-0707**

Public Health
Prevent. Promote. Protect.
Panhandle Health District

www.DEQ.Idaho.gov/PlayClean

## Be Smart Around Lead.
## Play, Eat & Keep Clean!

**Lead & other heavy metals are found in the soil along the lower Coeur d'Alene River, South Fork & Chain Lakes where people play.**

- Wash hands & face before eating.
- Bring water for all personal use. Don't use filtered river water.
- Eat on a table or blanket in grassy areas.
- Soil tracked home is an exposure source.
- Remove dirt on clothes, toys, pets & equipment before leaving.

**RECREATE SAFELY**

- Wear dust covering over mouth & nose when riding off-road trails.
- Recreate in designated areas & stay on trails.
- Follow fish consumption advisories. It is best to eat fillets only.
- Do not harvest edible plants from floodplain areas.

Know your child's blood lead level through simple blood testing
**Panhandle Health District: 208-783-0707**
Know how to reduce your child's exposure to lead in soil
**Idaho DEQ: www.deq.idaho.gov/PlayClean**


## The ICP reminds you to
## Protect Your Barrier!
## CALL US BEFORE YOU DIG
## 783-0707
## Institutional Controls Program (ICP)

*Remember...lead contamination may remain below clean soil or other protective barriers in yards and elsewhere on public and private property throughout the Bunker Hill Superfund Site. Protect your family and property value by making sure these barriers remain in-place and effective.*

**Panhandle Health District**

114 W. Riverside Ave. · Kellogg, ID 83837 · (208) 783-0707

Public Health
Prevent. Promote. Protect.
Panhandle Health District

811 Know what's **below.** **Call** before you dig.

University of Idaho

Would like to thank Roger Lew, Austin Baymen, and Dylan Luchini

DEPARTMENT OF ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES
UNIVERSITY of WASHINGTON · SCHOOL OF PUBLIC HEALTH

# Pediatric Lead Exposure: Diagnosis, Management & Prevention

## *On-Demand Webinar*

http://www.pehsuclassroom.net/lms/index.php?r=course/details&id=77

With the Bunker Hill Superfund Site as a case study, this CME-approved training will highlight the importance of pediatric lead screening and review the standard of care for children with elevated blood lead.

WEBINAR INCLUDES:

**Overview and History of the Silver Valley Bunker Hill Superfund Site**
Andy Helkey, Panhandle Health District

**Pediatric Lead Exposure: Diagnosis, Management and Prevention**
Ada Otter, DNP, ARNP, NW PEHSU

The NW Pediatric Environmental Health Specialty Unit seeks to reduce environmental health risks to children by providing training for health professionals, communities and families through consultation, educational activities, and referrals. NW PEHSU is part of a national network of pediatric environmental health experts funded by the CDC and ATSDR. Assistance in organizing the trainings was provided by the University of Washington Superfund Research Program, an interdisciplinary program that conducts and communicates research on the impacts of metal neurotoxicity on humans and ecological health

Sponsored by:
University of Washington
Northwest Pediatric Environmental Health Specialty Unit &
Superfund Research Program

Questions? Email: pehsu@uw.edu

# Then & Now


# Questions???

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