

BASIN BULLETIN



Review of Cleanup in the Coeur d'Alene River Basin

December

2013

Inside This Issue

- EPA Invites Public Review: 10-Year Cleanup Projections 2
- Laying the Groundwork: River Bank and Beach Pilot Project..... 3
- Brochure Still Available: Get Tips on Healthy Living 3
- 2013 Panhandle Health District Blood Lead Screening Effort 4
- Big Creek Repository: Filling Up, Annex Considered..... 5
- Lower Burke Canyon Repository: Work Starts in Spring 5
- Cleanup year in review 5
- Five Remedy Protection Projects Completed in 2013 6
- Planning for Groundwater Collection Near Kellogg..... 6
- Progress: Controlling Pollution Sources up in Ninemile 7
- Two Large Basin Properties Cleaned Up..... 8
- Homeowners Tell DEQ They are Pleased with Yard Remediation 9
- Riley Raccoon's *Play Clean* Web Page: 9
- Instinct and Hard Work: The Interstate Callahan Mine..... 10



Road Programs Get Mileage

The Roadway Surface Remediation Strategy is getting some mileage! Already, local jurisdiction contractors have completed about 8 miles of local paved roads. That's roughly three miles in the Box and 5 miles in the Basin. Several neighborhoods throughout the Silver Valley are enjoying their newly paved streets.

The work for next season is expected to bring that total up to 20 miles. We will start the process earlier so that engineering and design can start in the winter. That way, workers can hit the ground running when the weather permits in the late spring and summer.

Capping of contaminated unpaved roads in the Basin by IDEQ contractors is also progressing well. All of the public unpaved roads in the Basin have been sampled. Those found to be above action levels are being capped with clean gravel. All of the roads requiring capping in Kootenai have been completed, and the program is moving up-Basin to finish the work on Shoshone County roads and in Wallace and Mullan. This work is part of the overall property remediation program. We anticipate completion of all of the required work on unpaved roads during the summer of 2014.

The roads work is designed to protect public health. It ensures that surfaces act as barriers to underlying contamination and that drainage issues are addressed if required to protect the new gravel or asphalt barriers. It reduces lead exposure from dirt and dust generated by traffic on county and local public roads and helps prevent recontamination of residential and commercial properties that have been cleaned up.

Continued on next page ⇨

EPA Community Involvement Contacts

Caryn Sengupta
Sengupta.Caryn@epa.gov
 1-800-424-4372 ext. 1275

Andrea Lindsay
Lindsay.Andrea@epa.gov
 1-800-424-4372 ext. 1896

Road Programs Get Mileage

⇒ CONTINUED

The road work will also offset the impacts on roads due to heavy equipment traffic during remedial actions.

Idaho DEQ and EPA coordinate with local road jurisdictions. Many jurisdictions are finding ways to perform other infrastructure work in concert with the roads work to stretch available resources. A good example of this coordination was the successful completion of unpaved, paved and remedy protection work that was timed with replacement of sewer lines in Mullan and water lines in Kellogg.

Working together in the planning and execution of these programs ensured that those streets would not have to be torn up later to replace the old lines.

Contracts are advertised under a Public Works Contract Process with competitive bidding and appear in local newspapers.

For details about the unpaved roads program, call **Terry Harwood**, BEIPC, at 208-783-2528.

For details about the paved roads program, call **Bruce Schuld**, IDEQ, at 208-783-5781.

EPA Invites Public Review: 10-Year Cleanup Projections

EPA invites your review of its updated projections for cleanup over the next ten years. Public input is due by **January 17, 2014**. The *Superfund Cleanup Implementation Plan*, prepared last year, spells out plans for Superfund cleanup in the Basin. The *2013 Annual Update* highlights changes from last year's plan. The documents describe what cleanup work will happen and when. Find the documents at select local libraries or online at <http://yosemite.epa.gov/r10/cleanup.nsf/sites/bh> (under "News").

"We want input from the public as we do this long-term planning," says EPA Team Leader Bill Adams. "Some of the work happens in communities, and people should have a say."

Most changes are related to project schedules. There has also been a change to the design for collecting contaminated groundwater beneath the Central Impoundment Area.

Email your suggestions by January 17 to adams.bill@epa.gov

Or **mail** them to: CDA Basin Team, EPA Region 10
1200 6th Avenue, Suite 900, ECL-113,
Seattle, WA 98101.

EPA will prepare a final Update early next year, telling what changes it made in response to public input.

The mix and priority of projects over the next ten years remain the same:

- Finish property cleanups in the Basin with emphasis on high risk homes with children and pregnant women.
- Continue addressing roads that may have been damaged by cleanup activities, so that those roads can continue to serve as barriers to underlying contamination.
- Complete actions to protect cleanup work that has already been done.
- Upgrade the treatment plant that cleans groundwater from the Box and Bunker Hill mine.
- Construct a groundwater extraction system to intercept contaminated groundwater near the Central Impoundment Area.
- Continue high-priority cleanup work along the East Fork of Ninemile Creek.
- Begin work in Canyon Creek to collect water for treatment at the CTP (Central Treatment Plant) and to control sources of contamination.
- Do pilot projects in the Lower Basin to increase understanding of the area and methods to address risks that may lead to future cleanup work.
- Design and construct repositories.

Laying the Groundwork: River Bank and Beach Pilot Project

EPA is pleased to announce that the Khanderosa RV Park Campground along the CDA River will be the site of a pilot project. Lots of input from the local community guided the decision. This small scale cleanup will help protect people's health and inform possible larger-scale cleanups in the future.

Back in July, EPA announced that it had decided to do a river bank and beach remediation pilot project. This selection resulted from community input as a result of workshops held in March and a multi-step selection process by EPA and IDEQ. The agency has now finished screening the Khanderosa site and confirmed it is suitable for the project. Sampling and surveying are complete and the agency is now preparing a "design" to guide the cleanup.

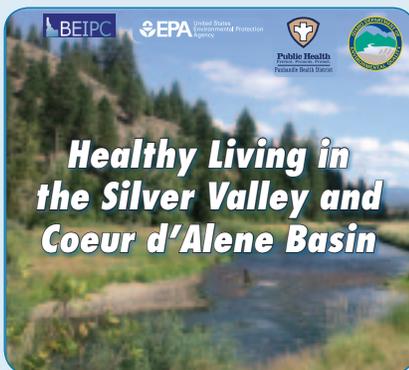
Work could include capping or removing contamination in select areas where the public could be exposed near the river, stabilizing the river bank, providing access to the beach and adding cautionary signs. Cleanup work is expected to be performed next year.

A second pilot project is still in the early research phase. That project would manage water levels in a contaminated area to help prevent waterfowl from feeding there.

Thanks again to all the people who submitted ideas for pilot projects. Your input is helping to shape cleanup actions in the Lower Basin. Find more information at <http://go.usa.gov/WewJ>



The pilot project will include stabilizing this riverbank.



Brochure Still Available: Get Tips on Healthy Living

Earlier this year, EPA and several partners produced, "Healthy Living in the Silver Valley and Coeur d'Alene Basin." This brochure suggests tips to reduce lead exposure and safely enjoy the local environment. Many community members and organizations have found this brochure to be helpful and informative. Let us know if you would like a supply of these documents to share. Find it online at <http://go.usa.gov/24CB>.

2013 Panhandle Health District Blood Lead Screening Effort



By Jerry Cobb, Panhandle Health District

The Kellogg office of Panhandle Health District conducted its annual free children's blood lead screening in the Bunker Hill Box and Basin again this summer. The Idaho Department of Environmental Quality and EPA fund blood lead screening as a service to families with young children and expectant mothers living at the Superfund site.

Solicitation for testing from 1985 until 2002 in the Box was conducted door-to-door by 3 teams comprised of two locally hired individuals. Teams visited each house in Kellogg, Smelterville, Wardner, Page, Pinehurst, Elizabeth Park and lower Montgomery Gulch offering this service. Children ages 6 months through 9 years were eligible for screening and were paid for their participation.

In 2000, 95% of the 320 children tested had a blood lead level below 10 µg/dL, which met the Remedial Action Objective (RAO) set for blood lead levels in children site-wide. This was confirmed and improved upon in 2001 and again in 2002. For 368 children tested in 2002, 2% had a blood lead level of 10 µg /dL or greater.

Federal funding was provided for paid participation and door-to-door screening from 1985 until it was discontinued in 2003. Fixed site testing for Box residents was funded by IDEQ from 2003-2012. In addition, participants were not paid for their involvement in the program during this period. Participation rates dropped dramatically for this 10-year period.

In May of 2012, the Centers for Disease Control and Prevention (CDC) reduced its blood lead level of concern from 10 µg /dL to a new "threshold value" of 5 µg /dL based on the 97.5th percentile of national blood lead levels in children ages 1 year through 5 years of age.

To better determine blood lead levels for children living in the Box in 2013, the screening was again offered door-to-door and children were paid \$30 for their involvement. Over 3,000 homes were visited. While the number of children currently living in the Box has dropped, 276 children were tested.

The average blood lead level was 2.4 µg /dL down from 3.1 µg /dL in 2002. One percent of children tested were above 10 µg /dL and 10 children were above 5 µg /dL.

Program Outreach Activities

- PHD sent a mailer to site residents in early summer announcing the upcoming screening.
- PHD published advertisements in regional newspapers and on the local radio station.
- PHD gives annual lead health presentations to students in kindergarten through grade 3 at all local schools, Head Start and the Christian Academy. PHD provides classes each spring, just before school is out for the summer, to remind children of lead hazards.
- EPA and IDEQ public outreach coordinators provided public awareness of the summer screening

Screening in the Basin in 2013 remained similar to past efforts. Screening sites were located in both the Upper and Lower Basin, and children ages 6 months through 6 years of age were paid \$30 for their participation. This was up from \$20 paid in 2012. Ninety two (92) children participated in 2013, up from 83 children last year.

The average blood lead level for those screened in 2013 was 2.8 µg /dL. Five children were identified with a blood lead level of 5 µg /dL or greater.

All children with a blood lead level of 5 µg /dL or greater were offered a follow-up home visit to help identify lead sources and exposure pathways.

Big Creek Repository: Filling Up, Annex Considered

The Big Creek Repository (BCR) at the mouth of Big Creek Canyon currently takes in waste from the Upper Basin cleanup actions and Institutional Controls Plan (ICP) users. During 2013 BCR received about 25,000 cubic yards of heavy metal contaminated material. Since opening in 2002, BCR has received about 526,000 cubic yards of contaminated material. That's about 85% of the 616,000 cubic yard total design capacity – including the extra capacity from the 2011 expansion. BCR has an expected remaining operational life of no more than two years.

With the BCR filling up, EPA, IDEQ and the Coeur d'Alene Trust are exploring ideas for increasing repository space in the Upper Basin. One of those ideas is to look into the potential to use an adjacent area to create an annex to BCR. This would allow for continued use of the existing infrastructure at BCR such as the wash off area, office, and entrance, saving time and money over selecting a totally new location. A small haul bridge would need to be built over the creek as the potential annex area is west of BCR on the other side of Big Creek.

The Trust is now investigating the potential annex area. The evaluation is expected to continue into 2014. Depending upon the results of the investigation and public input on this location, design work could start in 2014.

Contact:

Craig Cameron, EPA Project Manager
509-376-8665
cameron.craig@epa.gov

Cleanup year in review

It was a very big construction year for EPA and DEQ with over \$40 Million being spent on the cleanup. This work could not have been completed without the local labor force and the cooperation and coordination from local communities. In the course of the cleanup many lessons were learned and cost savings realized that will be applied to our cleanup efforts next year.

Lower Burke Canyon Repository: Work Starts in Spring

Plans are on track for the new Lower Burke Canyon Repository. Next spring, workers will start construction of this facility in Wallace, near Woodland Park. Once preparations are complete, limited volumes of waste from the Basin-Wide Institutional Control Program may be disposed of at this location. However, the majority of the capacity at this repository will be reserved for future cleanup waste generated within Canyon Creek.

Last June, EPA hosted an open house and public comment period about the repository plans. One commenter raised issues about its height. EPA is evaluating alternatives that would lower the height of the LBCR and allow more room for the waste. These include expanding the footprint of the repository and looking for other nearby locations for waste disposal. EPA's goals are to address public health risks, be responsive to comments, and avoid transport of waste through Wallace to another disposal location.

EPA would ask for public input if it is able to identify another disposal location within Canyon Creek.

EPA also received a comment about traffic. There will be increased truck traffic once cleanup begins in the upper canyon. Note that the north end of the repository is up-canyon from Woodland Park. So, truck traffic will be kept to a minimum near the residential area. Drivers will be required to follow safety practices, including safe speed limits, operation only during daylight hours, covering of loads, decontamination procedures, and dust and noise control as necessary.

Another commenter was concerned about dust from and management of the nearby SVNRT repository. The Agency is looking into options that could address the human health issues raised about the SVNRT repository while moving forward with development of the LBCR. To see the full response to comments, visit <http://go.usa.gov/Tvzd>

Five Remedy Protection Projects Completed in 2013

DEQ, EPA, and the Coeur d'Alene Trust completed five Remedy Protection projects in the Silver Valley during 2013. These projects will help to protect completed cleanup work, keep cleaned up areas clean, and reduce the potential for residents to be exposed to contamination in the long term.

The projects also help to protect private and public property from flooding and storm water runoff damage. The cities in which the projects are located have agreed to maintain the installed structures so they will continue to provide flood protection in the future. Shoshone County has agreed to maintain the new culvert in Silverton.

Remedy Protection Projects in the Bunker Hill Box

- **Wardner** - Work to prevent excess water draining down Sierra Nevada Road from depositing contaminated soil on Main Street was completed in July.
- **Smelterville** - Widening and deepening portions of Grouse Creek and replacement of the Old Highway 10 culvert to reduce flooding was completed in November.

Contact: Terry Harwood, BEIPC
208-783-2528

*We know that this work sometimes poses an inconvenience to residents.
Thank you for your cooperation.*

Remedy Protection Projects in the Upper CDA Basin

- **Mullan** - Upgrading roadside ditches and culverts and repaving of Third, Oregon, California, and Montana Streets to reduce scouring of clean barriers was completed in October.
- **Mullan** - Upgrading roadside ditches and culverts along Lower Dewey and Dewey Streets, upgrading the storm water pipe along Hunter, Dewey, and Upper Dewey Streets in Mullan, and repaving road surfaces to reduce scouring of clean barriers was completed in October.
- **Silverton** - In November, replacement of the culvert under Anderson Way west of Sather Field was completed.

Contact: Anne McCauley, EPA
206-553-4689

Planning for Groundwater Collection Near Kellogg

EPA is changing the way groundwater will be collected near the CIA (Central Impoundment Area) near Kellogg, ID.

Last year, EPA did work to learn how groundwater moves in this area and to better understand the water quality so that it can be treated effectively. The groundwater here is contaminated. It carries contaminants to the South Fork of the Coeur d'Alene River.

EPA is designing a system to collect the groundwater and then pipe it to a treatment plant before it goes into the river. Originally, the agency considered using an "interception drain" to capture contaminated groundwater. Instead the design will include a series of extraction wells and a slurry wall (a barrier made up of a soil and bentonite/cement) that is installed beneath the ground surface. This will isolate contaminated groundwater from the South Fork and direct

it to the extraction wells where it can be collected for treatment at the Central Treatment Plant.

Study results showed that the drain design had technical challenges associated with surface water getting into the system. By switching to wells and a slurry wall, costs are estimated to be lower and maintenance reduced. The system will be more efficient because surface water will be kept out and this will decrease the volume of water that requires treatment. This change will not result in any impact to the community; it just changes the way the system is engineered.

EPA expects to have a final design by fall of 2014. Work on the collection system could begin as early as summer of 2015.

Contact:
Kim Prestbo, EPA Project Manager
prestbo.kim@epa.gov
800-424-4372 ext. 0239 or 206-553-0239

Progress: Controlling Pollution Sources up in Ninemile

The CDA Work Trust made a ton of progress up in the East Fork of Ninemile Creek watershed over the summer and fall. Workers are preparing a waste consolidation area, or WCA, in this remote location.

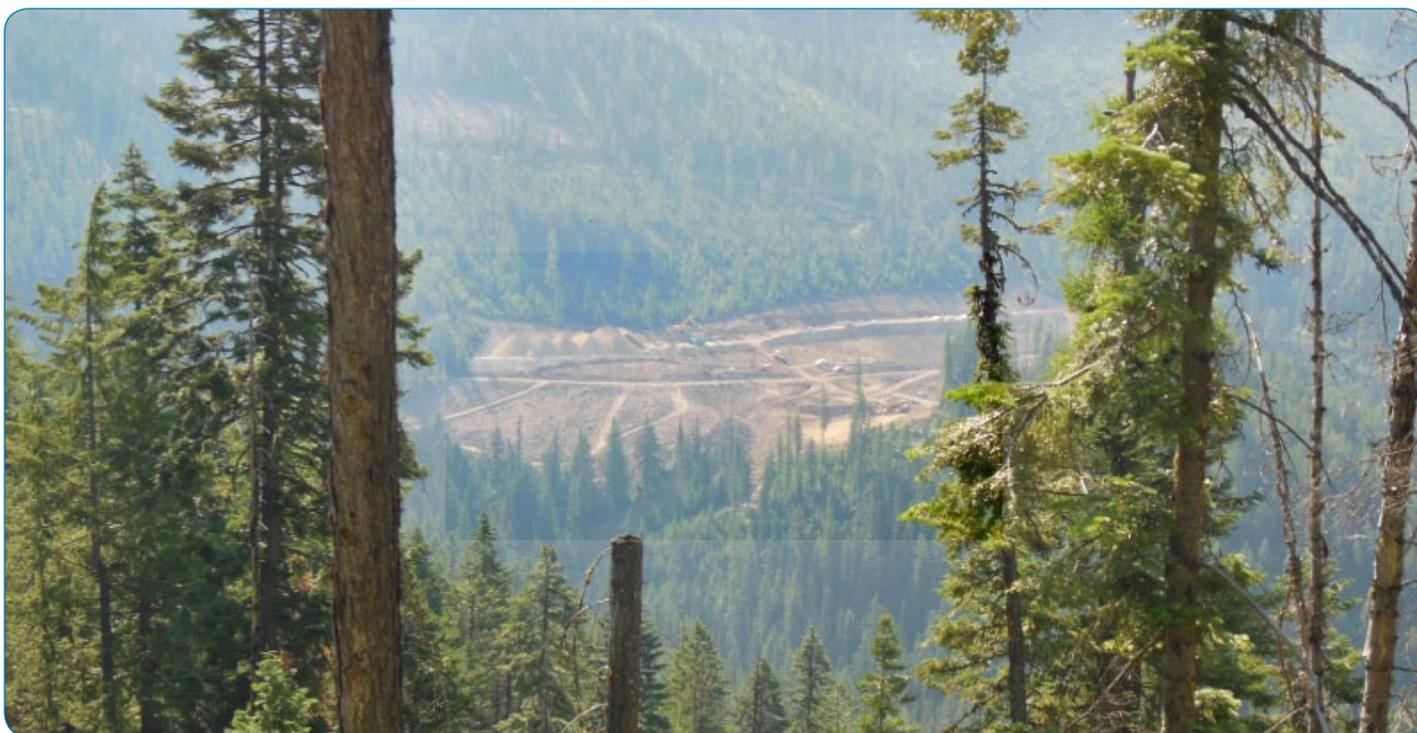
They have taken steps to protect the stream, cleared and blasted, developed roads, installed culverts, put in a drainage layer, and built up the sides of a site to hold cleanup waste.

The WCA will be completed next year. It will take in waste from the 2014 cleanup of the Interstate-Callahan Mine rock dumps site. In future years, cleanups of other mine sites located in the East Fork of Ninemile Creek watershed will also go into the WCA.

Moving contamination from a wide area, and putting it into one smaller, isolated, and managed location, will help keep it from moving downstream.



Major progress up in Ninemile Canyon! Here is a newly laid culvert, part of the overall project to help control sources of metals contamination.



Workers are preparing a "waste consolidation area" to help control sources of metals contamination.

Two Large Basin Properties Cleaned Up



Installation of the clean barrier at the Shoshone County Yard in Osburn

The CDA Work Trust is now done cleaning up two large commercial properties in the Basin: the Shoshone County Yard in Osburn and the vacant US Silver lot in Silverton. Workers placed clean material, including gravel and asphalt in some locations. Together, the two lots represent about 500,000 square feet of cleanup! The goal is to protect public health.

The CDA Work Trust will likely be doing more Basin property cleanup jobs in the future, as well as a number of other cleanup activities throughout the Basin.

The Trust was set up as part of a Superfund settlement in 2009. It administers funds under the direction of EPA, conducting Superfund cleanup work in areas contaminated by historical mining practices in the Basin. Work conducted by the Trust is funded by settlement monies, and does not use taxpayer dollars.

Contact:

Craig Cameron, EPA Project Manager
509-376-8665
cameron.craig@epa.gov

2013 Basin Property Remediation Program by the Numbers

Total Square Feet Remediated	Cubic Yards of Soil Removed	Number of Properties Participating
1,952,952 (equivalent to 34 football fields or 45 acres)	32,086 (almost 4,000 dump truck loads)	127 properties including rights-of-way

2013 Basin Property Remediation Counts (current as of December 2, 2013)

Homeowners Tell DEQ They are Pleased with Yard Remediation

By Denna Grangaard, DEQ Public Outreach Analyst
Denna.Grangaard@deq.idaho.gov

As the 2013 Basin Property Remediation Program buttoned up for winter, DEQ reached out to several homeowners for feedback about our performance. We asked questions such as:

How did your property remediation go? Were you happy with the results? Did you speak with contractors during construction, and were they pleasant and informative? How was the paper work and coordination process for you? Is there a way we can improve?

We received a positive reply about our program. Homeowners liked the landscaping and drainage work on yards, they appreciated the cordial and respectful staff and contractors during the process, and they appreciated being able to ask questions and make adjustments to the work plans as necessary.

DEQ heard that a single-point of contact, or *Property Representative*, is very effective and necessary. This person helps the crew get on the same page and is the liaison for the homeowner. Thank you North Wind Construction Inc. for your continued great work! Each homeowner is contacted before construction, but DEQ understands that some homeowners prefer

more advanced notice of construction than other homeowners. We'll strive to make our scheduling work. Homeowners noticed construction crews doing a careful and attentive job on their property. Thank you, Stewart Construction!

Some homeowners said that the process took a few years, (from soil sampling through construction completion) but noticed that the contractors were on-task. Thank you, homeowners, for your patience with the process. Quality sampling, testing, and construction maps save time and money. Thank you homeowners and TerraGraphics Engineering!

When asked: If a friend or neighbor was thinking about having their property remediated, but hadn't signed up yet, what would you tell them about our process, homeowners said, "I would tell them to get it done!"

Thank you for your confidence and approval of our program. We strive to provide quality service!

Basin Property Remediation Program Contact:

Bruce Schuld, DEQ Project Manager
 208-783-5781
bruce.schuld@deq.idaho.gov

Riley Raccoon's Play Clean Web Page

www.deq.idaho.gov/PlayClean

Q: What's new on Riley's Play Clean webpage?

A: Download your own "Riley's Family" coloring and activity book! Learn how to Keep Clean, Eat Clean and Play Clean while you give color to Riley's Family. Like puzzles? Try the word search and word code! Give a listen! New audio-clips highlight simple ways to reduce lead exposure while recreating along the Coeur d'Alene River:

- DEQ completed a public service announcement in response to public questions about lead exposures on beaches and recreation areas. Although most yards have been remediated (about 6,800), cleanup has not begun along the CDA River where people recreate, so it is important to know how to "play clean."



- A professionally-produced announcement gives people simple ways of reducing risk while recreating. Two versions of this PSA aired on KPND and K102, KXLY AM and KZZU. The spots ran for eight weeks through the end of September.
- The radio stations donated 80 spots per month to double the number we purchased. The matching spots aired from 5 a.M.-12 P.M. And the paid spots aired throughout the day.

Contact:
Denna Grangaard,
 DEQ Public Outreach Analyst
 208-783-5781
Denna.Grangaard@deq.idaho.gov

Instinct and Hard Work: The Interstate Callahan Mine

By Troy Lambert

Born in Illinois in 1858, Jim Callahan left home at 18 and traveled extensively before arriving at Evolution on Prospect Creek in 1883. He worked several odd jobs, spent a year prospecting in Kootenai County and then filed a claim in 1887 on what would become the Callahan mine. He built a cabin nearby that he inhabited for 17 years.

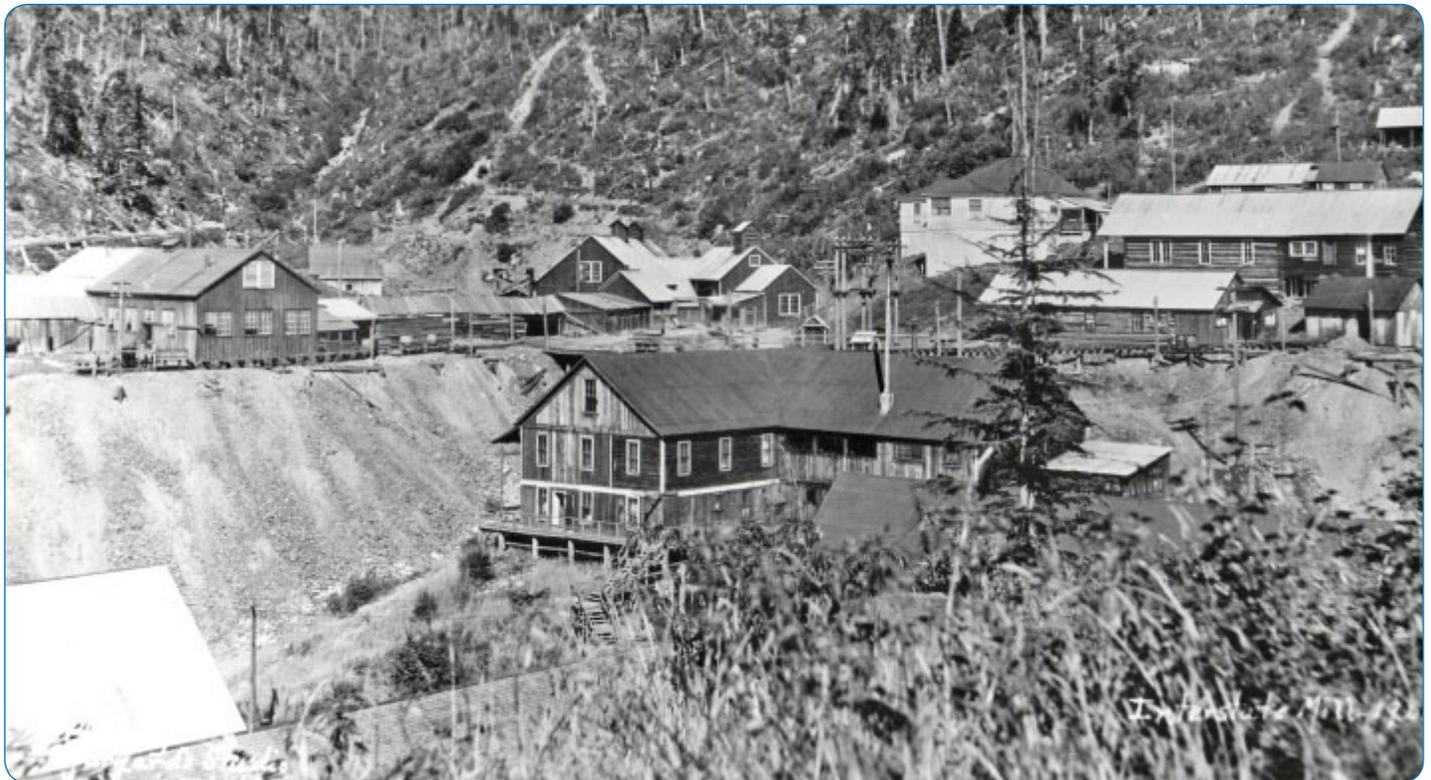
To support his exploration Jim worked at other mines, using his wages to buy powder and supplies. In 1890 he was seriously injured working in the Empire State Mine near Wardner. While recovering from his accident, other miners took an option on his mine, and extended the discovery adit 300 feet before giving up. He returned to work himself, and after extending the adit another 17 feet discovered a major vein.

Throughout 1906 he constructed a mile-long road by hand to the nearest railhead during the day, hand sorting ore by night. At the end of the year he shipped 11 cars of crude ore assayed at 60% lead and 15 ounces of silver per ton and worth \$110,000.

In 1907 the mine shipped 600 tons of ore, but his physical condition deteriorated, and he sought treatment in the southwest and Arkansas. He tried to interest John Robbers, who already had control of the adjacent Interstate, in the mine but failed.

However, in 1911 when he offered stock to raise money for a mill Robbers and other Minnesota investors bought \$100,000 worth, and in June 1912 formed a new enterprise called the Consolidated Interstate Mining Company. Jim continued to hold stock and remained involved in the company until he passed away in 1921. Operations at the mine ceased shortly thereafter in 1923.

Lessees did some mining and reprocessed tailings from dump areas until 1946. Day Mines continued to remove ore and material from Interstate stopes as late as 1977 through the connecting drifts of the adjacent Monitor Group. The mine once thought to be a futile enterprise produced 1,423,619 tons of ore including 1,987,651 ounces of silver, 99,215,270 pounds of lead, 306,931,724 pounds of zinc, 106,104 pounds of copper, and 259 ounces of gold.



Interstate-Callahan Mine complex, Nine Mile Canyon, 1923. Shows Surface Plant & Boarding Houses. Portal goes in toward the ore body, slightly to the left center of photo. Just a half dozen years or so before this photo was taken, this property was the largest Zinc producer in the State of Idaho.

Photo provided by the Wallace District Mining Museum

Comings and Goings

Glory Carlile

Welcome, **Glory Carlile!** Glory serves as the new assistant to the Executive Director of the Basin Commission.

Best wishes to former assistant **Jeri DeLange** who has moved on to another organization.

Documents

North Idaho College Library

Molstead Library
1000 Garden Avenue
Coeur d'Alene, ID 83814
208-769-3355

Wallace Public Library

415 River Street
Wallace, ID 83873
208-752-4571

Spokane Public Library

906 West Main Avenue
Spokane, WA 99201
509-444-5336

EPA Field Office

1910 Northwest Boulevard, Suite 208
Coeur d'Alene, ID 83814
208-664-4588

EPA Seattle Office

Superfund Record Center

1200 Sixth Avenue
Seattle, WA 98101
206-553-4494 or 800-424-4372

St. Maries Library

822 W. College Avenue
St. Maries, ID 83861
208-245-3732

Opportunities to Get Involved

Basin Environmental Improvement Project Commission (BEIPC)

Executive Director:
Terry Harwood, 208-783-2528
www.basincommission.com

Citizens Coordinating Council (CCC)

Contact:
Jerry Boyd, 509-455-6000
www.basincommission.com/cc.asp

Lower Basin Collaborative

lowerbasincollaborative@gmail.com
Learn more at:
<http://lowerbasincollaborative.wordpress.com>

The Basin Bulletin is published by the U.S. Environmental Protection Agency three times a year. The Basin Bulletin offers updates on the Superfund cleanup in the Coeur d'Alene Basin. For mailing list changes, to send comments on this newsletter, contact the editors, or submit articles for consideration, call Andrea Lindsay or Caryn Sengupta at as noted. Mention of trade names, products, or services does not convey, and should not be interpreted as conveying, official EPA approval, endorsement, or recommendation.

*Alternative formats are available.
For reasonable accommodation, please call*

 **Andrea Lindsay at 206-553-1896**

 **TTY users, please call the Federal Relay Service at 800-877-8339.**



BASIN BULLETIN

Review of Cleanup in the Coeur d'Alene River Basin

Look Inside for

- *Roads Program Gets Mileage*
- *Public Invited to Review Cleanup Plan for Next Decade*
- *Riverbank Pilot Project to Protect Health*
- *2013 Blood Lead Testing Results*
- *Much More!*



Printed on 100% recycled paper