



# BASIN BULLETIN

## Review of Cleanup in the Coeur d'Alene River Basin

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EPA Community Involvement Contacts:

**Debra Sherbina**  
[sherbina.debra@epa.gov](mailto:sherbina.debra@epa.gov)

**Andrea Lindsay**  
[lindsay.andrea@epa.gov](mailto:lindsay.andrea@epa.gov)

800-424-4372

(see Page 13 for websites)

## Our Environmental Cleanup: A Look Back

More than 25 years ago, scientific studies confirmed that there were high levels of heavy metals like lead and arsenic all over the Coeur d'Alene Basin, from past mining and smelting operations. Entire communities had been built right on top of old mine tailings. There was a public health crisis going on. Hundreds of children and families had elevated blood lead levels, some of the highest ever recorded. Lead causes serious health problems, especially for young children — learning disabilities, neurological problems, developmental delays, behavioral problems, and so on. Lead also poses a risk to pregnant women. Even wildlife is affected — the annual die-off of swans and other waterfowl is just one example. This crucial problem just had to be addressed.

*EPA has a public mandate to protect people's health and the environment*

EPA has a public mandate to protect people's health and the environment, and is required under the Superfund law to respond to these types of situations. The agency stepped up to its responsibility, named the area a Superfund site, and began cleanup. EPA partnered with the Department of Environmental Quality, an Idaho state agency which shares our mandate, and together started the long task of cleaning up communities. Tribes, local governments, other federal and state agencies, and community groups also became involved.

The agencies have worked hard to develop a sensible, reasonable approach to solving this complex problem. We are cleaning up yards, community areas, mine and mill sites, and other places where metals levels present a serious risk. It might look

## East Mission Flats Repository Closes for Winter

In late October, the last waste soil truckloads were received at the East Mission Flats Repository (EMF), near Cataldo. EMF shut down for the winter November 13.

Closure activities were performed to protect the waste soil and on-site disturbed areas from erosion during winter and spring storm and high-water events.

The repository's side slopes were protected with riprap or a spray-on tackifier and straw wattles. Areas disturbed by bridge construction outside the footprint of the repository were hydro-seeded.

A temporary stormwater retention pond was constructed on the north side of this year's fill area to capture runoff from the surface areas of the repository. To prepare the site to receive more waste soil next year, brush and trees from additional areas were cleared.

Clearing debris (tree tops, limbs, and other woody debris) was burned in late October, during the "Open Burn" season. The burning lasted about one week.

So far, about 23,500 cubic yards of contaminated waste soil have been placed at EMF.

Individual Control Program users should contact Panhandle Health District at (208) 783-0707 to arrange for disposal of ICP waste during winter closure.

This winter, a new monitoring well will be installed as part of the ground water monitoring program. In spring 2010 when EMF reopens, the permanent repository decontamination facility will be constructed.

The access road approach off Exit 39 and the bridge deck will be paved before the site reopens to receive more waste soil from the residential and commercial property cleanup program and the local Institutional Controls Program. For more information, contact Andy Mork, DEQ, at [andy.mork@deq.idaho.gov](mailto:andy.mork@deq.idaho.gov) or (208) 373-0141, or Ed Moreen, EPA, [moreen.ed@epa.gov](mailto:moreen.ed@epa.gov) or (208) 664-4588.

### Want to Be On Our Email Alert List?

*Get timely news and notices about the cleanups.  
You can expect to get about 2 or 3 emails a month.  
To get on the list, send your email address to  
[lindsay.andrea@epa.gov](mailto:lindsay.andrea@epa.gov)*

### What's been done?

In 2009, the following work took place at East Mission Flats:

- Brush and trees from about six acres were cleared in two phases;
- A temporary access road was constructed on the site using clean fill material to link the ICP area on the east with the Exit 39 construction area on the west;
- Haul trucks carrying contaminated soil used the access road to place about 23,500 cy of waste soil at the site while the Exit 39/Dredge Road bridge was being built;
- The bridge connecting Exit 39/Dredge Road to EMF was constructed on the west side of the site. The embankments to support the bridge were built from clean material;
- The contaminated soil was placed according to the fill plan. It was compacted and sloped to drain rainwater and snowmelt to an on-site stormwater retention pond;
- A silt fence was set up around the perimeter of the entire repository footprint as part of the stormwater "Best Management Practices" (BMPs) to keep sediment from being transported off-site. Other BMPs included hydro-seeding, tackifier and straw wattle placement, repository surface shaping and construction of a retention pond;
- Jersey barriers were placed along the north and east side of the Exit 39/Dredge Road bridge approach area for traffic safety;
- A metal gate was installed on the west end of the bridge to control site access.

## EMF Enhanced Monitoring Plan Open House Summary

The Idaho Department of Environmental Quality and EPA held a Public Open House October 29 at the Canyon School near Rose Lake. The Open House was an informal opportunity for people to learn about the East Mission Flats Repository “Enhanced Monitoring Plan” and give input. About 20 people came and met with project managers one-on-one, and viewed displays. People raised questions about the Enhanced Monitoring Plan and about other site activities.

DEQ and EPA know there are individuals and groups that support — and others who oppose — the East Mission Flats Repository. We welcomed all viewpoints at the Open House. We recognize that some local groups and residents, such as the Silver Valley Community Resource Center, continue to oppose the repository.

Therefore, we invited SVCRC and other interested parties to set up a table at the Open House. SVCRC accepted and presented their materials at a table. Tables were also made available for other interest groups or individuals to present their

materials as well. No other groups requested a table at the Open House.

The Enhanced Monitoring Plan (EMP) is being completed in response to the EPA Office of Inspector General’s (OIG) recommendation. It outlines the agencies’ plans to monitor moisture conditions within the repository and water levels in the ground below the repository.

Data collected from the monitoring will be used as an early warning system to test the design assumption that the repository will not leach metals to the local groundwater. The public review opportunity ran from October 13 - November 12, 2009. No comments were received on the EMP during the public review period.

The final EMP was submitted to the OIG on November 30. For more information, contact Andy Mork, DEQ, at [andy.mork@deq.idaho.gov](mailto:andy.mork@deq.idaho.gov) or (208) 373-0141. To see the plan and summary, visit: [http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/east\\_mission\\_flats\\_repository](http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/east_mission_flats_repository)

## Page Repository Expansion Update

The foundation of the 1.6-acre Page Repository expansion is now complete and will be ready to accept waste soil from the Bunker Hill Box in the spring. ICP waste received throughout the winter will be directed to a designated location on the existing repository.

The existing repository has been graded to direct runoff to water management structures. More drainage control and upgrades to the existing structures are planned by the end of the year. The repository has been mulched and seeded with native grasses to limit erosion and dust.

Access to the closed portion of the repository has been restricted by a new fence on the north and soon by concrete blocks on the south access road. A gate has been installed in the east fence to allow South Fork Sewer District employees access to the closed repository next to their treatment ponds.



*Constructing foundation for Page Repository expansion, fall 2009.*

*Photo: Idaho Dept. of Environmental Quality*

A Community Open House was held at the Kellogg High School on September 9, 2009. Representatives from EPA, DEQ and Hecla Mining Company were available to talk one-on-one with attendees. Several concerns and suggestions were heard. For example, several people expressed

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## A look back

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like a hodge-podge approach to picking which yards get cleaned, but that is because we are cleaning the highest priority areas first — the aim is first to protect young kids and pregnant women.

The cleanups are disruptive for a lot of people. At the same time, we're pleased to report that we are seeing major reductions in blood lead levels in the children who participate in the annual screening program. And, the locally-run Institutional Controls Program is helping by making sure that clean soil caps are maintained when they are disturbed, and new ones are installed when development takes place. The ICP is also responsible for making sure that contaminated soils from development and improvement projects are properly disposed of, instead of staying in community areas.

There are already many repositories in the area. Many are in the floodplain, have been in place more than a decade, and have a strong record of safely containing lead and other heavy metals. But they are getting full. To keep protecting people and the environment by removing contaminants, we need more repositories.

Repositories are engineered to withstand floods and protect groundwater and valuable wetlands.

*We are seeing major reductions in blood lead levels in the children who participate in the annual screening*

We're here to clean up the environment and protect people. We do not intend to build a repository that spreads more contamination. We wish we could just make the contaminated soil disappear, but that just isn't going to happen. Please work with us; there is a lot of soil, and it's going to be a tough road ahead to figure out where to put all of it.

We, as federal and state environmental agencies, are obligated to make sound scientific decisions. We are dedicated to our mission to protect people's health and the environment, even if our actions are unpopular. We take your input seriously and always consider the information you provide. We recognize that, at times, EPA may make decisions that some people do not agree with. This does not mean that we are not listening to your concerns or are carelessly disregarding public input. In these instances, we are listening but have not heard or seen information that would cause us to change our conclusions.

Although much progress has been made, there is still a lot more work to be done. The problem is huge, the contamination is widespread, and the cleanup will take decades. We will do what we can to be good neighbors while we work to get this cleanup done as quickly as we can.

## Page Repository Expansion Update

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a desire to see the wetlands west of the existing repository retained, especially in light of the vegetation and wildlife seen from the Trail of the Coeur d'Alenes. One person asked EPA and DEQ to consider designing repositories to look more natural next to the trail.

### For More Information, Contact:

- **Bruce Schuld, DEQ**  
[bruce.schuld@deq.idaho.gov](mailto:bruce.schuld@deq.idaho.gov), (208) 373-0554.
- **Anne McCauley, EPA**  
[mccauley.anne@epa.gov](mailto:mccauley.anne@epa.gov),  
or (800)424-4372, ext. 4689.



*An extra layer of stone was placed along the perimeter of the expansion as rip rap against high flows in Humboldt Creek.*

*Photo Idaho DEQ*

## A Very Productive Year for Basin Property Remediation Program

The Coeur d'Alene Basin Property Remediation Program (BPRP) began the 2009 construction season in late April. The program started strong with 180 people working on the project.

At the peak of the construction season in August, a total of 312 people were working on the project. The program has kept its momentum into November.

By the end of October, 454 properties were cleaned up – nearly 4 million square feet. This is well over the nearly 2.5 million square feet that were remediated during the entire 2008 construction season.

In July 2009, the State of Idaho received \$15,000,000 in additional funding through the American Recovery and Reinvestment Act to be used over 2 to 3 years for the BPRP.

The addition of this “Stimulus” funding enabled the program to clean up an additional 203 properties, including a number of larger properties that were not included in previous years due to funding constraints.

Sather Football Field in Silverton was completed in 2009, along with a number of large commercial and residential properties in the Nine Mile and Osburn area.



*Sather Football Field in Silverton, after cleanup*

*Photo by by Jan Olsen, IDEQ, Kellogg.*

In October, the BPRP hauled 14,832 loads of contaminated waste material to the Big Creek Repository.

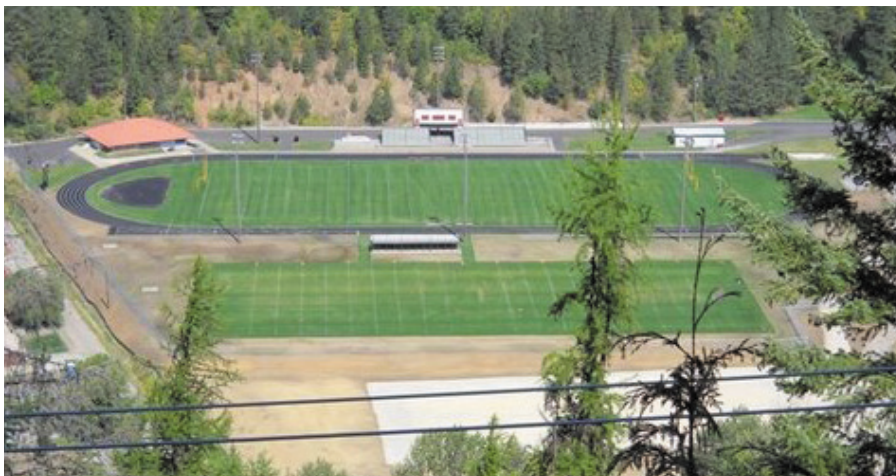
The East Mission Flats (EMF) Repository began receiving contaminated BPRP material on August 20. Contaminated material was hauled to EMF through the end of October, when wet weather made it necessary to stop hauling.

During the 2009 construction season, 3,755 loads of contaminated waste material were hauled to EMF.

### For more information

Dan Meyer, DEQ,  
[dan.meyer@deq.idaho.gov](mailto:dan.meyer@deq.idaho.gov) or  
(208) 783-5781

or Bill Ryan, EPA,  
[ryan.william@epa.gov](mailto:ryan.william@epa.gov) or  
(800) 424-4372, x8561.



*Sather Field Remediation Completed*

*Photo by Kevin Redmond, North Wind (contractor)*

## Update to Cleanup Plan Seeks to Protect Water Quality, Human Health Remedy

EPA is continuing to work on changes to its cleanup plans for the Upper Basin. The change, called a ROD (Record of Decision) Amendment, will result in a new cleanup plan for the Upper Basin to protect public health and the environment.

### **Protecting Water Quality**

The goal of this effort is to set out a comprehensive cleanup approach across the Upper Basin to protect the environment, particularly water quality. It will ensure better protection for local water quality and wildlife.

EPA is doing this work to reflect improved knowledge of local conditions, as well as to address National Academy of Sciences' recommendations. The cleanup plan will include actions at a large number of mine and mill sites in the Upper Basin, impacted streams, and areas within the Bunker Hill "Box" (Operable Unit 2) to remove or cap contaminants, or collect groundwater for treatment.

### **Protecting the Existing Remedy**

EPA's primary focus is on human health. Among other things, this means keeping clean soil barriers in place and clean areas clean. As part of the ROD Amendment, EPA is working with DEQ in the Upper Basin to better understand where barriers that protect people's health may be at risk from tributary flooding and heavy rain and snowfall. Tributary and precipitation flooding has been modeled in the populated areas of the Upper Basin. Areas of expected scouring and recontamination have been mapped.

Upper Basin Mayors, Shoshone County Commissioners, and their Public Works and Streets Supervisors have provided input to the technical analysis. They have also given feedback on the resulting impact maps based on their on-the-ground experiences. In the ROD Amendment, EPA and DEQ expect to propose projects to address tributary and precipitation flooding to prevent damage to clean barriers.

This fall there have been technical meetings with the Upper Basin PFT to share the results of groundwater modeling and to discuss remedial alternatives. Updates on the cleanup plan revisions are also provided at all TLG, CCC and Basin Commission meetings.

In addition, information about the cleanup plan changes has been shared at various community group meetings. If you are interested in having EPA give a presentation to your organization, contact Debra Sherbina at [sherbina.debra@epa.gov](mailto:sherbina.debra@epa.gov) or (800) 424-4372, x0247.

*EPA's primary focus is on human health*

EPA anticipates that the draft cleanup plan or "Proposed Plan" will be available for public comment in late spring/early summer 2010. During the comment period, a public hearing will be held in the Upper Basin. EPA wants the cleanup work to reflect local priorities and needs.

Your input can help shape the plan and the priorities. While EPA will respond to all comments received during the formal public comment period and hearing, we would prefer to hear from you sooner and more often so we can make adjustments as we move along. Your ideas are important to help design the modified cleanup plan and guide the cleanup process.

### **For More Information**

More information about the ROD Amendment is online. Find technical memos, meeting presentations, and community involvement documents at: <http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/bh+rod+amendment>

If you have questions or early suggestions, contact Anne Dailey, (206) 553-2110, [dailey.anne@epa.gov](mailto:dailey.anne@epa.gov) or Bill Adams, (206) 553-2806, [adams.bill@epa.gov](mailto:adams.bill@epa.gov)

For questions or suggestions about tributary and precipitation flooding, contact Anne McCauley, (206) 553-4689 or [mccauley.anne@epa.gov](mailto:mccauley.anne@epa.gov) or call toll-free (800) 424-4372.

## Repository for Upper Basin: Getting Closer ROD Amendment Repositories Will Be Needed

The ROD Amendment cleanup is also driving the need for new repositories, in addition to residential property cleanups. The ROD Amendment will lead to more cleanups in the Upper Basin. That means there will be more waste soil to be placed into repositories. Soils from old mine sites, and possibly contaminated sediments from the South Fork of the Coeur d'Alene River or its tributaries, will need places to go. Without repositories, the cleanup cannot move forward and the public will continue to be exposed to high metals levels.

At this time, we don't know how many repositories we'll need to contain wastes from ROD Amendment work. The number of future repositories depends on the amount of waste, and the size of the repositories. If the repositories are bigger, fewer will be needed to store the waste.

Large, centrally-located repositories are one option for storing waste from new cleanups in the Upper Basin. However, for mine and mill site ("source area") cleanups, EPA's first step will be to see if waste can be safely consolidated and capped on site. EPA has done this successfully at many places, such as the Golconda, Rex and Constitution mine site cleanups. As a result, we have been able to reduce the volume of soils hauled to repositories. If EPA cannot safely contain waste on site, it will be taken to a repository.

DEQ, EPA, and the Basin Commission are work-

ing together to find places for new repositories in the Upper Basin. There are many opportunities for community involvement in repository siting. To learn more, contact Andy Mork, as noted below, or Ed Moreen, EPA, (208) 664-4588. Online, visit: [http://basincommission.com/TLG\\_PFT\\_Repository.asp](http://basincommission.com/TLG_PFT_Repository.asp).

### **Update: Repository for Upper Basin Property Cleanups**

Osburn Pond and Star Ponds are rising to the top of the list of possible repository sites in the Upper Basin. Although the selection process is not final, these two sites are now strong repository site candidates.

The agencies worked with the public to create selection criteria. Then they worked with local elected officials and the Repository Project Focus Team to "weight" the criteria. Using these weighted criteria, eight sites were then ranked. The agencies are now looking into things like access options, development costs, and acquisition considerations.

In 2010, the agencies will host an Open House on the proposed site selection. The public will have a chance to formally comment on site selection during a 30-day comment period. To learn more, contact Andy Mork, DEQ Project Manager, at [andy.mork@deq.idaho.gov](mailto:andy.mork@deq.idaho.gov) or (208) 373-0141.

## Fill the Holes: Policy Development Update

An idea proposed by local community representatives and discussed at community workshops is now being considered for implementation. The agencies are working with local community officials to develop a policy on "filling the holes," or "Community Fill" projects.

The Community Fill process would involve putting metals-contaminated soils, from within the Bunker Hill Superfund Site area, on vacant property that is similarly contaminated. This would create level ground in the Silver Valley for economic development. In other words, it would mean filling

low spots to create developable land, using soil that would otherwise have gone to a repository. In considering doing this, it is important to remember that contaminated soils are nearly everywhere on the valley floor and floodplain. The Superfund remedy does not call for removal of all of these materials – this would be practically impossible. The remedy calls for placing a barrier between the contaminants and people to limit exposures. The Community Fill process would be regulated by the local Institutional Controls Program (ICP), which

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## Fill the Holes: Policy Development Update

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requires a clean barrier cap on the contaminated fill. In some cases, access would be restricted. The ICP also regulates contaminant movement off of properties. So, the fill area would need to control movement of soils off the property.

The Community Fill process would take some pressure off the need for repositories. However, even if the process moves forward, repositories still will be needed to take in the huge amounts of soil removed as part of cleanups around the Basin.

In September 2009, DEQ met with the Panhandle Health District (PHD). PHD runs the ICP and worked with DEQ to outline a Community Fill process that could be allowed under existing ICP rules. Based on that discussion, a draft policy was crafted to allow “third parties” to use metals-contaminated material as construction fill.

Third parties could be local residents, contractors, and developers. The early draft is now being reviewed by PHD, EPA and DEQ. DEQ gave

an update on the Community Fill process to the Basin Commission in November.

PHD, EPA and DEQ will meet in January to discuss the draft policy, identify issues, and see about reconciling differences. Among the issues to discuss is ensuring that contaminated fill is not placed in areas where additional cleanup is likely to occur. DEQ will also discuss the draft with the Bunker Hill Task Force. This group is made up of local citizens, local elected officials in the Coeur d’Alene Basin, and the Basin Commission’s Repository Project Focus Team.

If it looks like the idea is feasible, and legal and technical challenges can be resolved, the agencies will seek input from local citizens before a final policy is put in place. The goal is to have the Community Fill process in place by the start of the 2010 construction season. For more information, contact Andy Mork, DEQ, at [andy.mork@deq.idaho.gov](mailto:andy.mork@deq.idaho.gov) or (208) 373-0141.

## Other Ways to Dispose of Contaminated Soil in the Basin?

Residents continue to ask if there are other ways to dispose of contaminated soil besides just using repositories. DEQ and EPA have considered and responded to many ideas for waste disposal. Some ideas have been proposed by community members.

The 2002 Record of Decision for the Coeur d’Alene Basin selected “soil stabilization through consolidation and capping” as the preferred alternative for addressing contamination. Soils are consolidated at individual mine and mill sites, and at regional repositories such as Big Creek. The agencies considered other alternatives that would protect people and wildlife, but EPA continues to consider repositories to be critical for soil stabilization. We continue to evaluate the effectiveness of our cleanup, but even after exploring options and responding in public forums and documents, the agencies still believe repositories are the best option. This does not mean that we are not listening to the public’s ideas. We are. We simply have not found nor heard a solution that will be more workable at this site.

Here are some of the ideas considered:

### **Shipping Off-Site**

The agencies have a responsibility to manage the contaminants within the site if it can be done. And we *can* safely store and contain the waste soil in local repositories. We have been doing so for more than 20 years now. In this case, it would be irresponsible and too expensive to move the waste to other communities.

### **Putting Soil Down Mine Shafts**

Mine-shaft disposal will not work for many reasons. A partial list of the reasons discouraging mine shaft disposal includes:

- Volume Constraints – although the contaminants came out of the mines, they have been mixed a hundred-fold or more with river sediment and native soil. One cubic yard of rock removed from the mines may require more than 100 yards of waste storage.

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## Other Ways to Dispose of Contaminated Soil in the Basin?

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There is not that capacity available in all the Silver Valley mines combined to contain this volume of waste material.

- **Water Quality** – Most of the old mines are filled with water, and some parts of them were backfilled with sands and waste materials when in operation. Before anyone could re-enter the underground workings, an expensive system of dewatering pumps would need to be operated at most mines. The water produced from dewatering may be contaminated to the point where dumping it to the creeks and rivers would seriously degrade surface water quality and therefore require treatment.
- **Safety** – Many of the old workings have not been occupied for years. In order to enter the old mines to estimate their storage volume potential, extensive studies would be needed to evaluate the safety of the mineshafts. Safety issues that could happen in old mines include cave-ins, air unsafe for breathing, rotten mine timbers ready to fail, and narrow tunnels only made large enough for running narrow gage rail systems. Many of the old workings would require very expensive rehabilitation just to enter them to calculate potential storage volumes, let alone retrofitting them to store the waste soil.
- **Logistics** - The Bunker Hill cleanup operations are performed on a large scale. The repositories commonly receive over 100 twenty-ton dump trucks per day. This type of operation would require big, heavy-duty roads for safe transport. The mines are scattered all over the Silver Valley, so lots of road improvement or new road construction in the mountains would be necessary to support the increased truck traffic.
- **Operational Constraints** – Many of the old mines would need extensive surface improvements to handle the truck volume.

*Many of the old mines would require very expensive rehabilitation just to enter them to calculate potential storage volumes, let alone retrofitting them*

Additional space would be needed to receive the waste from trucks and transfer soil to underground ore cars or conveyance systems. A very large underground material conveyance system would be necessary at each mine to then place the waste soil deep in the old mine shafts. At many old mines, much rehabilitation would be necessary for equipment to be placed in them to dispose of materials within the mine.

- **Future Mining Concerns** – Mining activity waxes and wanes through the years depending on commodity prices. Currently inactive mines may someday be opportunities for renewed mining activity. Backfilling the mines with waste soil would make it very difficult to re-occupy the mines to start mining activity again.
- **Costs** – Underground operations are very costly and dangerous to move even relatively small amounts of material. When you add up the costs to safely develop an old mine to receive waste soil -- dewatering, keeping operations staff safe, safety studies, shaft rehabilitation, ventilation system installation, road building, and other underground improvements – the price skyrockets in comparison to large surface repositories.

### **Phytoremediation**

Phytoremediation is using certain types of vegetation to partially clean up the soil by taking up the contaminants in the stem, roots, or leaves. It is a relatively new technology, still to be studied for effectiveness on a range of contamination types from petroleum to heavy metals. Phytoremediation takes a long time to clean up the soil to safe levels. It requires planting, harvesting, and disposal of the plants over many years. The plants take up some part of the contamination while they grow and pull nutrients out of the soil.

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## Other Ways to Dispose of Contaminated Soil in the Basin?

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Phytoremediation would require disposing of the used plants each season, as they would hold lead, arsenic, zinc, and cadmium. This technology also requires the areas be replanted every season, over many seasons, to reduce metals levels in the soils. Used plants would have to be placed in a repository, or burned to ash, then put in a repository.

On a very small scale, such as a garden plot or yard, phytoremediation could work if the appropriate plant species were used and the landowner was diligent about cultivation practices. The plants would need to be removed and properly disposed of at the end of the growing season. The landowner would need to commit to a long time period.

Phytoremediation is difficult to accomplish on a large scale. The contaminated soil in the Basin is very widespread. For example, in the Lower Basin alone, over 28 square miles (18,000 acres) of waterfowl habitat is contaminated.

This ground would need to be seeded with appropriate plants to take up the metals.

The areas would have to be maintained. At the

end of the growing season, the plants would have to be harvested and disposed of safely to remove the metals from the environment. This type of contamination management is likely to be incompatible with current land uses of the many different landowners. For example, the plants needed for successful phytoremediation may not be a suitable replacement for the crops grown now -- like alfalfa or grass hay, small grains or orchards.

### Vitrification

Vitrification is a process that permanently traps harmful chemicals in a solid block of glass-like material. The process uses electric power to create heat to melt soil. The temperatures needed to melt soil are very high and if met, would melt other things, like underground utilities. The contamination at this site covers such a large area that vitrification simply does not make economic sense to be applied on this large scale.

At the yard-soil level, vitrification may pose a significant risk to the landowner from applying a large electrical current through the soil. Potential damage to the water and sewer pipes, wells, fences and foundations could take place. It is not a viable option at a site so large, where so many people live and operate businesses.

In-place vitrification will result in a sterile, impermeable block of glass-like soil. The soil could not be used for yards, gardening, or agricultural purposes. Also, the vitrified soil will not allow water to easily pass through it. The result would be ponded water in places where it never ponded before.

### Leaving Contaminants in Place

The agencies have a mandate to protect people's health and the environment. It would be irresponsible for us to leave contaminants in place

where there is serious risk of exposures. However, the cleanup does not call for complete removal of all contaminated soils. For example, it calls for key source material stabilization, excavation, and capping.

*The contamination at this site covers such a large area that vitrification simply does not make economic sense to be applied on a large scale*

### Making Soil into Concrete

Concrete is a blend of cement (powdered limestone), gravel, water, and sand. Soil is not a suitable substitute for the aggregate (gravel) in a concrete mix and would decrease the strength of the concrete and make the concrete unsuitable for most typical concrete uses.

### 'Filling the Holes'

The "Fill the Holes" or "Community Fill" option means moving contaminated soil from a borrow area to a low spot in order to use the low spot for economic development. This option has not been ruled out. The agencies are working with local governments to explore possibilities. However, if it is found to be workable, repositories will still be necessary even if some of the waste soil goes to "filling holes" to create developable land. (See an update on this topic on page 8.)



*Bridge Under Construction at Barker Road South*

*Washington State Dept. of Ecology*

## Department of Ecology Report on Two Lower Basin Cleanups Along the Spokane River

As part of the Record of Decision for the Coeur d'Alene Basin, the Washington Department of Ecology is moving forward with further cleanup of the Spokane River in Washington State.

### **Flora Road Project Completed**

The Washington State Department of Ecology placed a cap of gravel material over contaminated sediments along the river bank at the Flora Road site. The site is an informal river access point in the Spokane Valley, about five miles downstream of the Idaho border. A part of the access path from the Centennial Trail to the beach also was enhanced with gravel to help reduce erosion and improve public access.

Contaminated sediments came from heavy metals that washed downstream from Lake Coeur d'Alene during high flows. During summer months, the river is lower and contaminated sediments were exposed to people using this area. Capping protects people from the contaminated sediments and also protects the ecological health of the shoreline.

### **Barker Road South Project Postponed:**

The Barker Road South site is immediately south and east of the Barker Road Bridge, in the Spokane Valley. The bridge is currently under construction.

During a 30-day comment period, citizens expressed concerns about the project. Ecology heard these concerns, which included river access and safety issues and questions about the proposed fence at the site.

Ecology planned to build a fence around the Barker Road South site near the Centennial Trail. The fence would prevent access to contaminated soil at the bottom of the ravine along the river bank in this area. Work was originally scheduled to begin after the Barker Road North bridge construction was finished. However, delays in the bridge project would complicate river access if Ecology's project continued at the same time.

Ecology postponed the Barker Road South project until current bridge work is completed and Ecology's Barker Road North site has been addressed. This decision will provide proper and safe river access when all of the projects are finished. Ecology also plans to re-evaluate the planned fence at the Barker Road South site for adequacy in providing the level of protection needed given river access and site usage.

If you have questions, contact Dave George, Ecology, at [cgeo461@ecy.wa.gov](mailto:cgeo461@ecy.wa.gov) or (509)329-3520, or Ravi Sanga, EPA, at [sanga.ravi@epa.gov](mailto:sanga.ravi@epa.gov) or (800) 424-4372, x4092.

## Opportunities to Get Involved

### Basin Environmental Improvement Project Commission

Executive Director:

Terry Harwood, (208) 783-2528

[www.basincommission.com](http://www.basincommission.com)

Next Meeting: February 17, 2010 (tentative)

### Citizens Coordinating Council (CCC)

Contact: Jerry Boyd, (509) 455-6000

[www.basincommission.com/ccc.asp](http://www.basincommission.com/ccc.asp)

Next Meeting: January 27, 2010

**Submissions:** To make a submission to the *Basin Bulletin*, please contact Andrea Lindsay or Debra Sherbina (see contact info on the front page).

**Subscriptions:** The *Basin Bulletin* can be e-mailed to you as a pdf. For additions or corrections to the mailing list, contact Andrea Lindsay or Debra Sherbina at:

U.S. EPA, ETPA-081, Suite 900  
1200 Sixth Avenue,  
Seattle, WA 98101-1128

or at their phone and e-mail information on the front page of the *Bulletin*.

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

## Comings and Goings



### A Tribute to John Snider

We are sad to report that **John Snider**, the founding Chair of the Citizens Coordinating Council (CCC), passed away on October 29. John served as CCC Chair from 2002 to 2009 and was a representative for Kootenai County on the Technical Leadership Group. John was honored in April 2009 for his service to the Basin Commission, including his dedication to making sure citizens have an important and consistent voice in the decisions of the Basin Commission. John's commitment and service inspired many. He will be missed.

### A Tribute to Toni Hardy

We are sorry to report that Citizens Coordinating Council member **Toni Hardy** passed away on November 19. Toni was one of the founding members of the CCC and very involved in Basin cleanup issues. She was committed to and straightforward about her opinions on agency decisions. Toni will be missed.

## Community Liaison Coming to Basin

EPA is making plans to hire a Community Liaison to work in the Coeur d'Alene Basin. The goal is to make the agency more accessible, to build relationships locally, and to improve communications about the Superfund cleanup project by having an on-site outreach contact. It is not clear yet whether this position will be full-time or part-time. EPA is still working out the position description and hiring mechanism, and plans to provide additional information in early 2010.



## Websites

EPA Coeur d'Alene Basin

<http://Yosemite.epa.gov/R10/CLEANUP.NSF/sites/cda>

Basin Environmental Improvement Project Commission [www.basincommission.com](http://www.basincommission.com)

Technical Leadership Group (TLG)  
[www.basincommission.com/TLG.asp](http://www.basincommission.com/TLG.asp)

Citizens' Coordinating Council (CCC)  
[www.basincommission.com/CCC.asp](http://www.basincommission.com/CCC.asp)

## Sesame Workshop's 'Lead Away' — Online Resource for Families

You can watch the Sesame Workshop's "Sesame Street Lead Away!" It meets the critical need for up-to-date information and education on the dangers of lead. This bilingual (English and Spanish) online program provides an original Sesame Street video story, children's activity pages, and parent tips. Key messages and strategies are made age-appropriate, engaging, and easy to implement. The materials suggest simple ways we can all help to protect ourselves from these hazards.

Sesame Street Lead Away is available at [www.sesameworkshop.org/lead](http://www.sesameworkshop.org/lead). The Lead Away video is available on iTunes *Learn Along with Sesame*, free of charge.

## Information Repositories

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 Ave.

St. Maries, ID 83861

(208) 245-3732





United States Environmental Protection Agency, Region 10  
Community Involvement and Outreach  
1200 Sixth Avenue, ETPA 081, Suite 900  
Seattle, Washington 98101-1128

Basin Bulletin  
Quarterly Newsletter  
Coeur d'Alene Basin, Idaho

- Inside:**
- Our Environmental Cleanup — A Look Back
  - East Mission Flats Repository closes for winter
  - Do other ways to dispose of contaminated soil work?



*Alternative formats are available. For reasonable accommodation, please call Debra Sherbina at 206-553-0247. TTY users, please call the Federal Relay Service at 800-877-8339.*