



WELCOME TO THE Upper Coeur d'Alene Basin Site Tour

OCTOBER 6TH, 2010; 1:30PM – 4:30PM

EPA's proposed cleanup plan for the Upper Coeur d'Alene Basin is out for public review and comment. We have heard concerns about the complexity of the cleanup plan. The goal of this tour is to get out and see real examples of the work EPA is proposing and some cleanups already completed. The tour is intended to help community members understand the scope and scale of the proposed cleanup. Participants will have a chance for informal discussion and questions along the way.

TOUR GUIDES:

Anne Dailey, Project Manager, Environmental Protection Agency

Bill Adams, Project Manager, Environmental Protection Agency

TOUR AGENDA:

- Welcome, health and safety briefing, load vans
- Drive to Wallace and learn general background about the site and the proposed cleanup
- Stop at Golconda Mine east of Wallace
- Stop at Woodland Park: presentation by Jim Stefanoff (CH2M Hill) about contamination problems in Canyon Creek
- Drive through Canyon Creek up to Burke
- Stop at mouth of Ninemile Creek
- Restroom stop in Wallace
- See proposed community drainage projects and remedy protection in Silverton
- Stop at Big Creek Repository
- Stop at Moon Creek: presentation by Jeff Johnson (U.S. Forest Service) about cleanup work completed
- Return to Smelterville and wrap up tour

Note: The attached maps and photos will be referred to during the tour.

For More Information:

Attend the Open House tonight. See displays, chat with project managers, ask one-on-one questions, get help understanding the Proposed Plan document, and turn in written comments. There will be no presentation. Drop in any time.

October 6

Shoshone Medical Center Health and Ed Center

6:30 pm – 8 pm

858 Commerce Drive, Smelterville, Idaho 83868

Contact the Project Managers:

Anne Dailey, dailey.anne@epa.gov or 206-553-2110

Bill Adams, adams.bill@epa.gov or 206-553-2806

Anne McCauley, mccauley.anne@epa.gov or 206-553-4689

Or call toll-free at 1-800-424-4372

You can also visit the website at:

<http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/bh+rod+amendment> or <http://go.usa.gov/igD>

Please Send in Your Comments on the Proposed Plan: Due November 23, 2010

We want to hear from you. Your comments are important to help design the Proposed Plan and guide the cleanup. Public comments are due November 23, 2010. Send comments to:

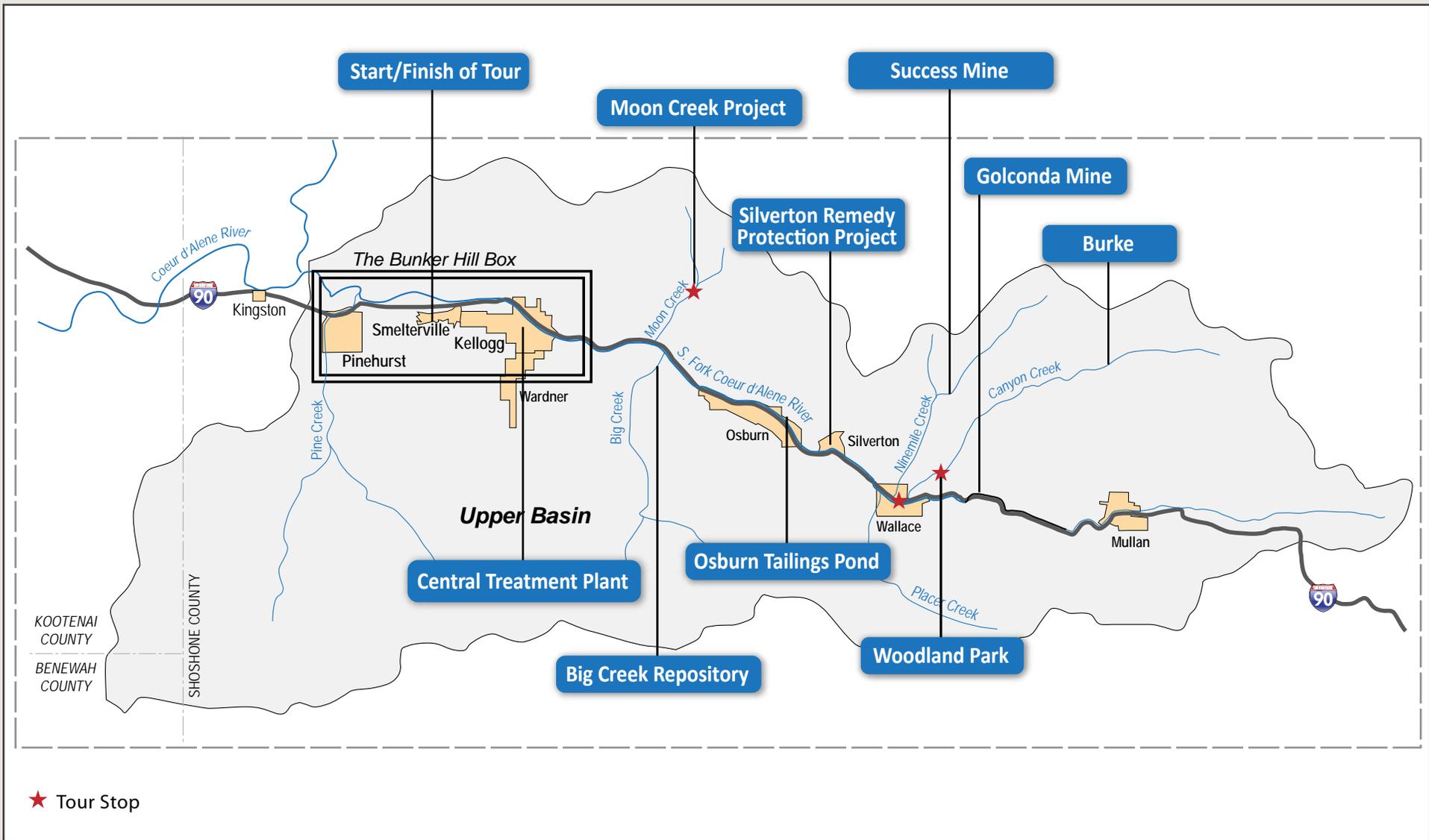
cdabasin@epa.gov

OR

Coeur d'Alene Basin Team - EPA

1200 6th Ave., Ste. 900, ECL-113, Seattle, WA 98101

Thank you for your interest and participation!



★ Tour Stop

ES0927100847415EA

0 5 10 20 Miles



Tour Overview Map
UPPER BASIN PUBLIC TOUR



BUNKER HILL MINING AND METALLURGICAL COMPLEX SUPERFUND SITE, IDAHO AND WASHINGTON

COEUR D'ALENE BASIN LOCATION



SITE HISTORY

- Coeur d'Alene Basin impacted by over 100 years of mining
- Until 1968, 2100 tons/day of mine waste discharged directly to river and creeks
- Most tailings piles located in and near streams
- Over 100 million tons of mine waste, including 2.4 billion pounds of lead spread over thousands of acres
- Bunker Hill Site listed on National Priorities List in 1983



SUMMARY OF BASIN-WIDE RISKS

- Direct human contact with lead-contaminated soil, sediment, and dust
- Historic high blood lead levels
- Ecological impacts on surface water, groundwater, and soil/sediments
- Impacts on wildlife/waterfowl
 - Fish and other aquatics significantly impacted from elevated Zn and Cd
 - Species diversity reduced and habitat fragmented
 - Waterfowl deaths from eating lead-contaminated sediment reported for decades



EPA DECISION DOCUMENTS

- Bunker Hill "Box" (21 square mile area around the former smelter complex)**
 - OU 1 Populated Areas ROD (1991)
 - OU 2 Non-Populated Areas ROD (1992)
 - Two ESDs and two ROD Amendments
- OU 3 Coeur d'Alene Basin ROD (2002)**
 - Final Human Health and Interim Ecological Remedies

SUPERFUND LONG-TERM GOALS

- Reduce people's exposure to lead and other metals – top priority
- Attain water quality criteria for protection of aquatic life
- Reduce wildlife exposure to lead in floodplain soil and sediment
- Reduce particulate lead in surface water
- Create economic redevelopment opportunities through cleanup and property transfer where possible

MANY BASIN STAKEHOLDERS INVOLVED

- Coeur d'Alene Basin Commission
- State of Idaho, State of Washington
- Coeur d'Alene Tribe, Spokane Tribe
- Natural Resources Trustees
- Community leaders
- Shoshone, Kootenai, and Benewah Counties



CLEANUP ACTIVITIES TO DATE (2010)

HIGHLIGHTS OF CLEANUP PROGRESS

- Cleanup of more than 5000 residential properties and community areas
- Blood lead levels now near national averages
- Box residential and community area cleanup complete
- Nearly 2,000 acres transferred to the State of Idaho for economic development projects
- Box Phase 1 source control actions
- Contaminated soil removal, clean soil replacement or consolidation, capping, and revegetation
- Minimization of waste disposal
- Provision of bottled water in areas with shallow wells
- Clean areas for recreational use, such as boat launches in Lower Basin
- Intervention and education efforts to reduce exposure to lead contamination
- Convert clean agricultural lands to wetland habitat under a conservation easement agreement, collaborative partnership among private land owner, EPA, USFWS, Ducks Unlimited
- Cleanup that created 72 mile bike trail

CLEANUP OF RESIDENTIAL AREAS

Contaminated soil has been removed from residential yards, schools, and day cares.

Soil has been replaced to create a clean barrier in residential yards.

Sod placed on top of the clean soil barrier provides protection against erosion.

CLEANUP OF MINE / MILL SITES WITH RECREATIONAL USE

Remedies at sites such as the former Rex Mine and Mill took into account recreational uses. ATV and other recreational uses cause erosion and leaching; cleanup consisted of consolidating wastes in upland areas and capping.

CLEANUP OF RECREATION AREAS

Soil lead concentrations ranged from 4000 ppm to 10,000 ppm. The remedies in these areas included consolidation, capping, and minimization of waste disposal.

For example, cleanup East of the Rose Lake Boat Launch involved remediating the high soil lead levels to create a clean recreational site.

TRAIL OF THE COEUR D'ALENES

72 miles of contaminated railroad right-of-way has been cleaned up and converted to a popular recreational trail.

BOX PHASE 1 NON-POPULATED ACTIONS

- Industrial complex demolished, 4 M cy of waste consolidated, and Principle Threat Materials addressed
- 800 acres capped and 3200 acres of hillside revegetated

CLEAN WATERFOWL FEEDING HABITAT PROJECT

400 acres of agricultural lands are being converted to clean wetland habitat.

Clean waterfowl feeding habitat is being created in an area with widespread soil lead contamination.

BOX HILLSIDES REVEGETATION PROJECT

- Fire, timber for mines, excessive soil erosion, and other impacts resulted in thousands of acres of denuded hillsides
- PRPs terraced the hillsides in an attempt to minimize ongoing severe erosion
- Agency-funded revegetation program began in 1998; yearly lime and seed applications until 2001
- Tree and shrub planting completed in 2002
- Hugely successful, adaptively managed project
- National American Consulting Engineering Council award winning project

HELIKOPTER LIME APPLICATIONS

1997 HILLSIDES

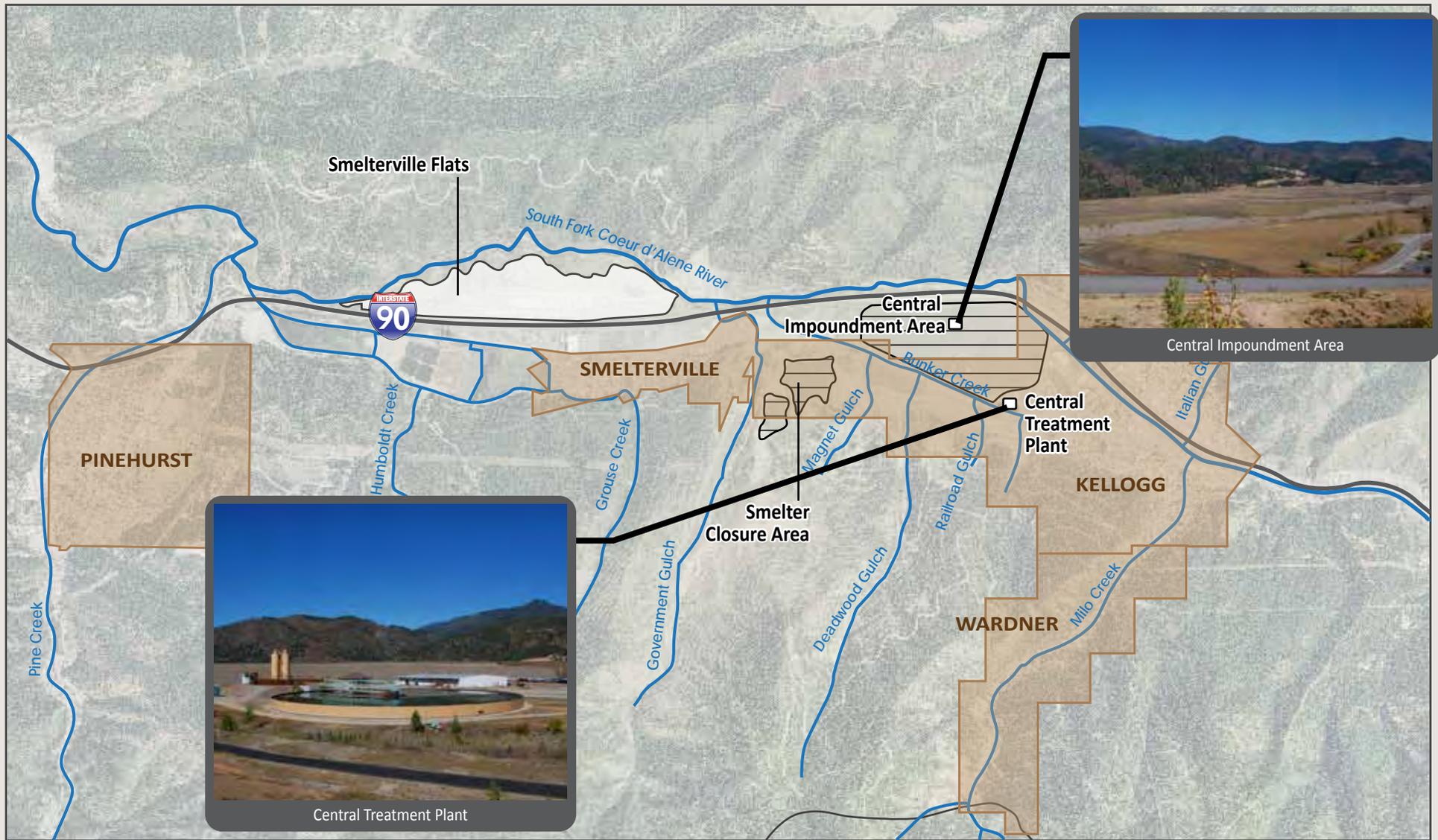
2003 HILLSIDES

2010 HILLSIDES

TREE RESPONSE



United States Environmental Protection Agency Region 10



Base Map Data: NHDPlus (Rivers, Waterbodies);
 ESRI (Interstates 2006, Major Highways 2008);
 IDWR (Aerial Imagery 2009).

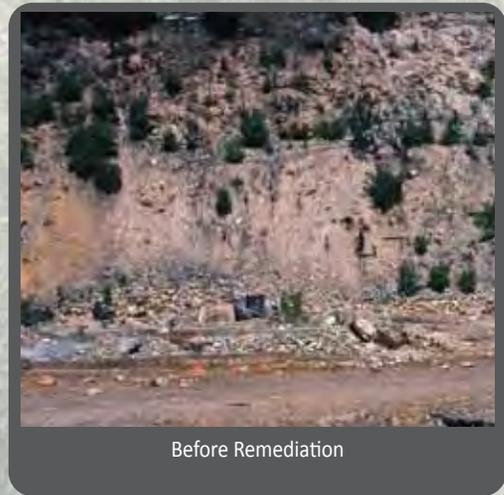


Bunker Hill Box

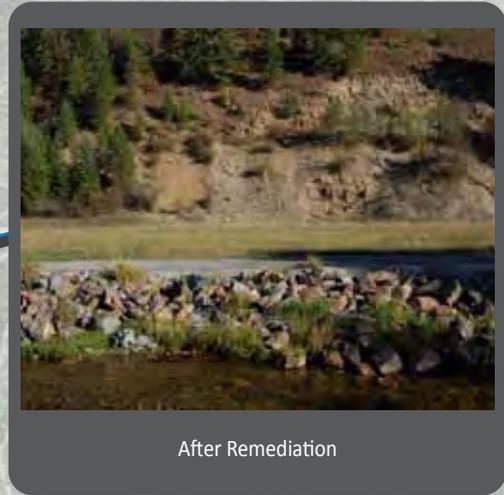
UPPER BASIN PUBLIC TOUR



Base Map Data: NHDPlus (Rivers, Waterbodies);
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Before Remediation



After Remediation

Golconda Mine Cleanup

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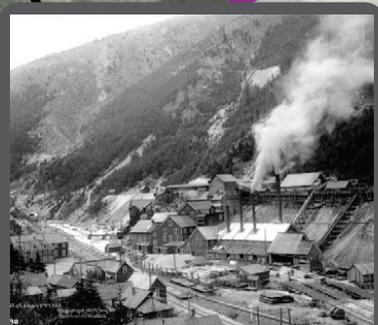
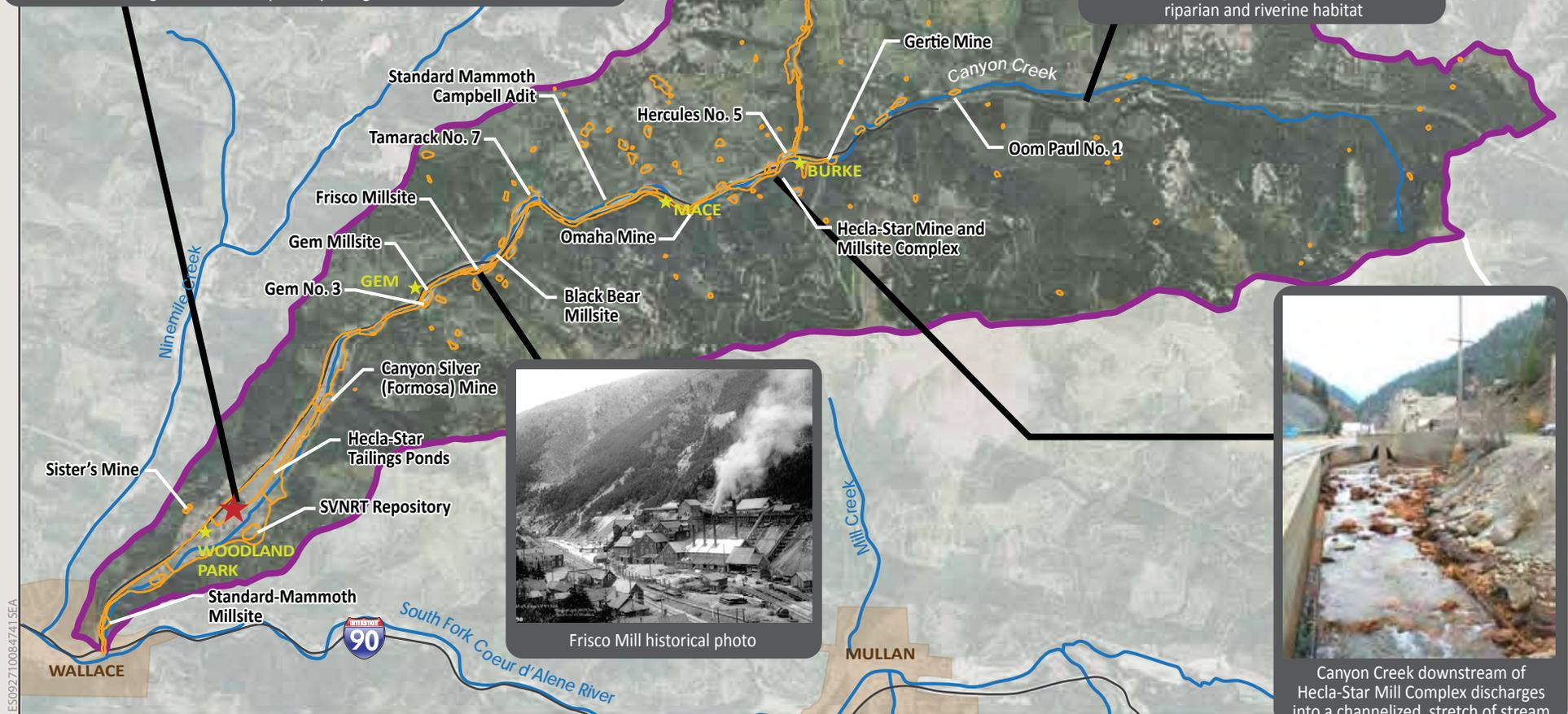




Metals leaching from SVNRT Repository into groundwater and surface water



Canyon Creek headwaters above Oom Paul No. 1 showing relatively natural riparian and riverine habitat



Frisco Mill historical photo



Canyon Creek downstream of Hecla-Star Mill Complex discharges into a channelized stretch of stream

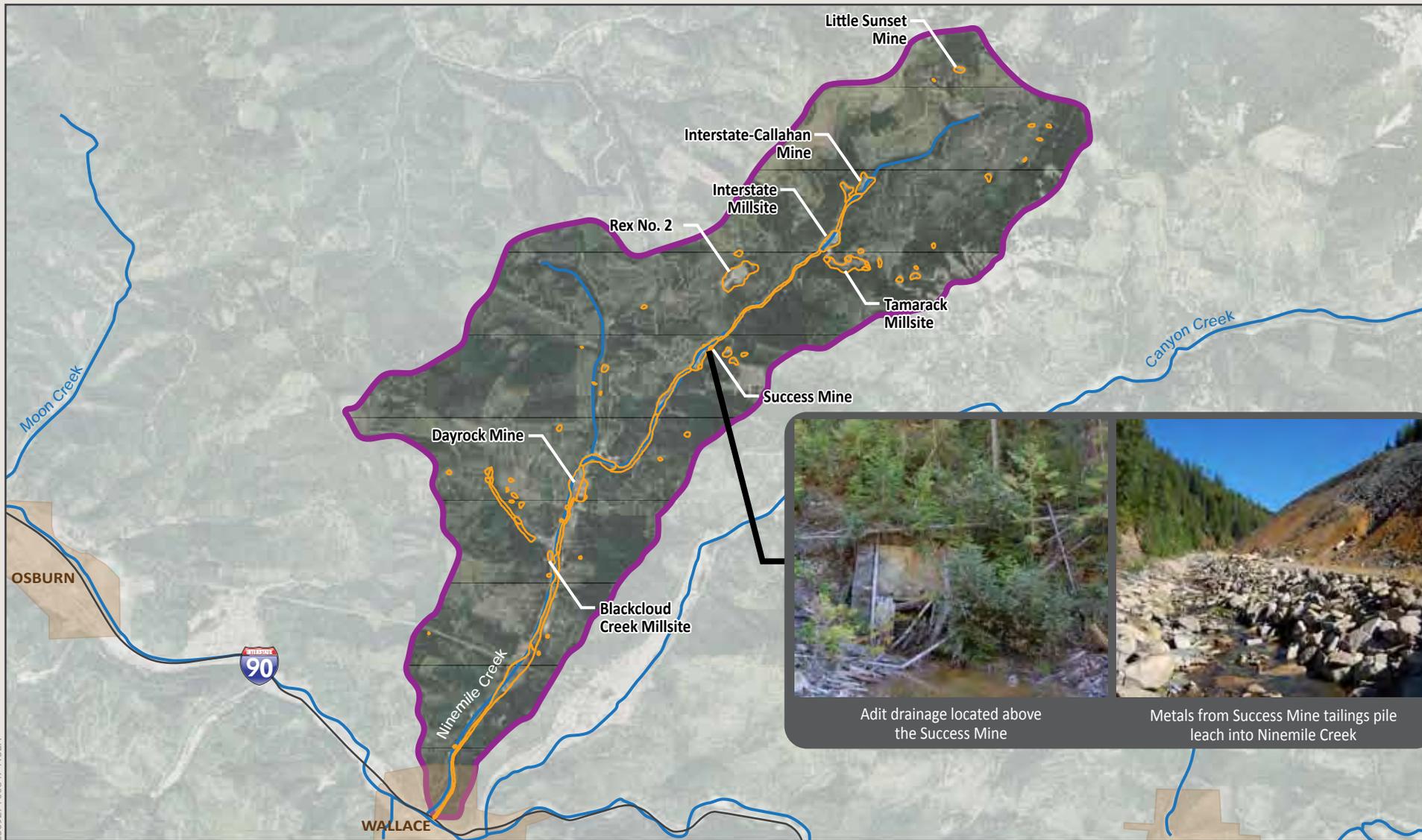
Base Map Data: NHDPlus (Rivers, Waterbodies);
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-  Source Area
-  Tour Stop



Canyon Creek Watershed

UPPER BASIN PUBLIC TOUR



Base Map Data: NHDPlus (Rivers, Waterbodies);
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 IDWR (Aerial Imagery 2009).

 Source Area



Note: Ninemile Creek is not part of the tour due to time constraints. This map is for illustrative purposes.



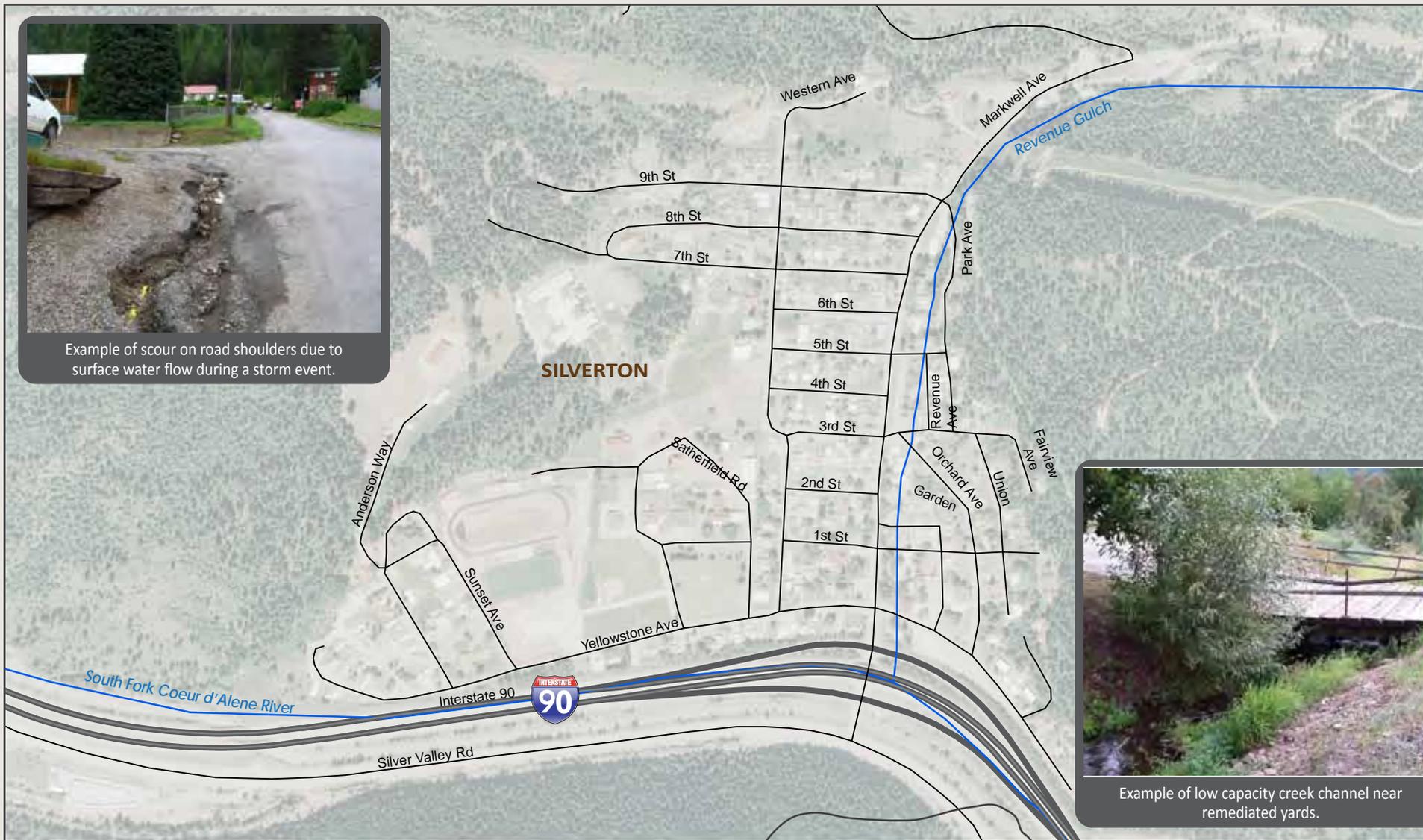
Ninemile Creek Watershed

UPPER BASIN PUBLIC TOUR





Example of scour on road shoulders due to surface water flow during a storm event.



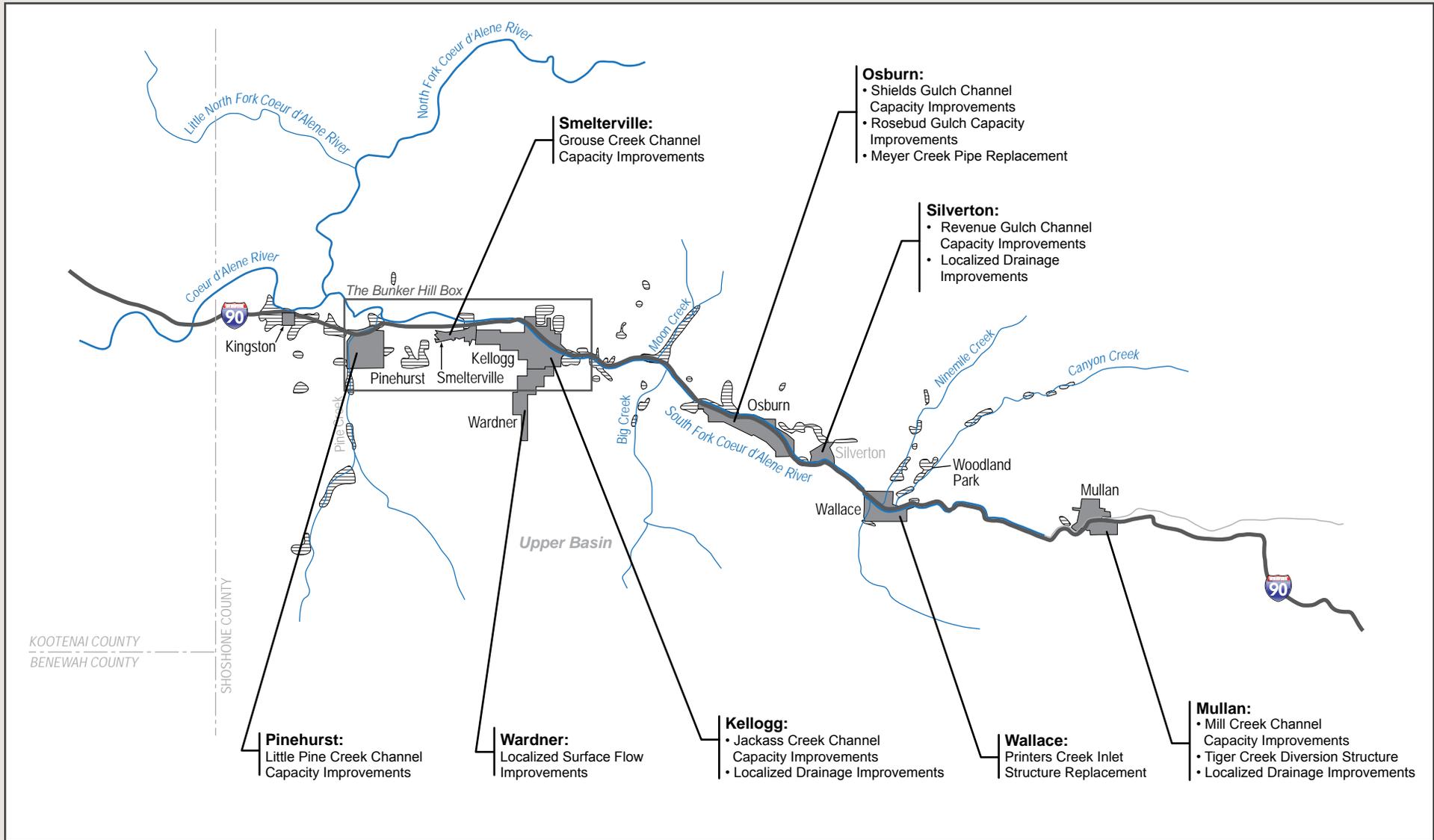
Example of low capacity creek channel near remediated yards.

Base Map Data: NHDPlus (Rivers, Waterbodies);
ESRI (Interstates 2006, Major Highways 2008);
IDWR (Aerial Imagery 2009).



Silverton Remedy Protection Projects

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Remedy Protection Areas

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Photos Taken From Twomile Creek Looking East



Photo taken around 1900



Photo taken in early 1990s

Osburn Floodplain Photos
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Silver Crescent Mine Site
1996 - Before Restoration



2008
Final Restoration
Just Completed
Silver Crescent Mine Site
2008 - Final Restoration Just Completed



Silver Crescent Mine Site
Summer 2009 - After Restoration



Base Map Data: NHDPlus (Rivers, Waterbodies);
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IDWR (Aerial Imagery 2009).

 Source Area

 Tour Stop



Moon Creek Restoration

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