BUTTE CLEANUP UNIVERSE UNIVERSE

The Butte Site Consent Decree (or CD) is ready for review. This is a legal agreement that would provide a permanent remedy for historic mine site contamination in the Butte Priority Soils site. That remedy would:

- Protect and revegetate additional areas of exposed mine waste on Butte Hill
- Expand systems to capture and treat contaminated stormwater before it enters Silver Bow Creek
- Expand systems to capture and treat contaminated groundwater before it reaches Blacktail and Silver Bow Creeks
- Remove contaminated flood plain sediments from segments of Blacktail and Silver Bow Creeks
- Move Silver Bow Creek out of the slag canyon and into a new clean channel nearby

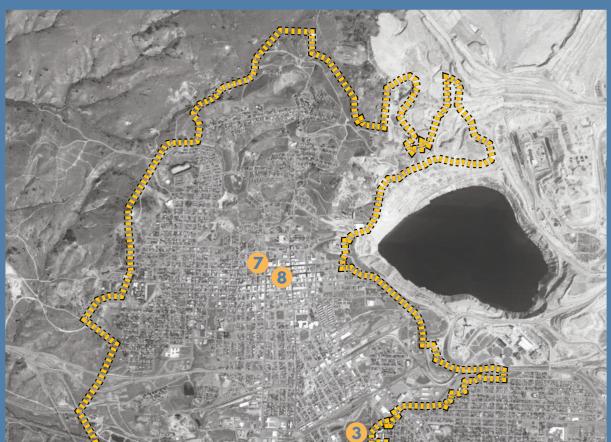
If the CD is approved by the court, Atlantic Richfield would fund the construction, operation, maintenance and monitoring of this remedy. Atlantic Richfield would also provide the State with funds to complete a coordinated remedy and restoration project at Blacktail Creek, with the flexibility to use any surplus funds for other restoration projects in Butte. Atlantic Richfield would also combine the remedy with the creation of 120-acres of park and green spaces along the creek corridor, with trails, a fishing pond, an amphitheater and other amenities for the community to enjoy.

The work that Atlantic Richfield proposes to perform and pay for under the CD goes beyond the work that EPA can legally require as part of the remedy under the Superfund Program (the Comprehensive Environmental Response, Compensation Liability Act (CERCLA)). The CD will benefit all parties because it is an agreement to:

- Resolve long-standing disputes over remedy options and who should pay for them
- Establish a remedy that will be safe, feasible, sustainable and permanent
- Combine that remedy with restoration along a segment of Blacktail Creek, and with park areas that will offer benefits for the community to enjoy in the future While Butte-Silver Bow has been

named as a party with potential responsibility for some of the contamination in Butte, this CD also will ensure that the above work will be funded by Atlantic Richfield.

WHERE IS THE BUTTE PRIORITY SOILS OPERABLE UNIT



HOW TO LEARN MORE

Educational open houses and informal coffees are scheduled to provide members of the public opportunities to ask questions and better understand the Consent Decree.

SCHEDULE OF UPCOMING EVENTS

Community Coffee

February 18, 2020 8:30-10:00 am Park & Main

Community Coffee

February 19, 2020 8:30-10:00 am City Brew

Open House

February 20, 2020 6:00 - 8:00 pm Butte Archives

Community Coffee

BPSOU covers more than 4,200 acres, from historic Uptown Butte, to significant reaches of both Blacktail and Silver Bow Creeks at the base of the Butte Hill. The operable unit extends as far south as Timber Butte and the Copper Mountain Sports and Recreation Complex.

E TO DE ADDRESS

9 PROJECT AREAS WITHIN THE BPSOU

- Diggings East Stormwater Basin Area
- 2 Buffalo Gulch Stormwater Basin(s)
- 3 Northside Tailings/East Buffalo Gulch Area
- 4) Grove Gulch Sedimentation Bay
- 5 Blacktail Creek Remediation & Contaminated Groundwater Control
- 6 Butte Reduction Works, Smelter Area Mine Waste, Remediation & Contaminated Groundwater Hydrological Control
- 7 Insufficiently Reclaimed Source Areas *Multiple Sites present throughout BPSOU
- 8 Unreclaimed Solid Media Sites *Multiple Sites present throughout BPSOU
- 9 Uncontrolled Surface Flow Areas (BMPs) *Multiple Sites present throughout BPSOU

TABLE OF CONTENTS

- **PAGE1** Schedule of Events
- PAGE 2 Environment and Cleanup
- **PAGE 3** Health and RMAP Expansion
- **PAGE 4** Future of the BPSOU

WANT TO LEARN MORE?

To download a copy of the CD, please visit:

- www.armontana.com
- www.co.silverbow.mt.us
- www.epa.gov/superfund
- deq.mt.gov/Land/fedsuperfund

February 21, 2020 8:30-10:00 am Park & Main

Community Coffee

February 24, 2020 8:30-10:00 am Park & Main

Lunch Hour Open House

February 25, 2020 12:00 - 1:00 pm Butte Archives

Open House February 25, 2020 6:00 - 8:00 pm Butte Justice Center

Community Coffee February 26, 2020

8:30-10:00 am City Brew

End Land Use Presentation

February 27, 2020 5:30 - 7:00 pm Butte Brewing Co.



CONSENT DECREE DEFINES MONITORING AND MAINTENANCE PROGRAMS EXPANDED



Above: Conceptual rendering showing the transformation of Butte Reduction Works site. Inset: Historic photo of Butte Reduction Works at the turn of the century.

COMPLYING WITH STANDARDS

Metal levels in Silver Bow Creek have declined dramatically since cleanup began. Today the creek meets State water quality standards most of the time, but when it rains, metal levels in the creek increase (see inset). Because it is not technically practicable to achieve the State's total recoverable copper and zinc acute standards at all times, Federal standards for copper and zinc will be used to measure water quality.

There are also elevated levels of cadmium, arsenic, aluminum and other metals in our creeks during storms. Modeling indicates that if the work outlined in the Consent Decree is performed, the concentrations of these metals will meet State water quality standards.

The Consent Decree includes two key documents that focus on compliance. The Surface Water Management Plan and Compliance Determination Plan outline a period of time where water quality will be monitored to determine compliance with

The compliance plan requires the soil caps, stormwater basins, and groundwater capture and treatment systems to be properly built, operated and maintained to capture metal contamination that would otherwise flow into the creek. If the metal concentrations in surface water exceed State water quality standards, these remedies may need to be repaired or adjusted, and newly identified sources of historic mine waste may need to be addressed. If exceedances continue to occur, then Federal water quality standards for those metals will then apply.

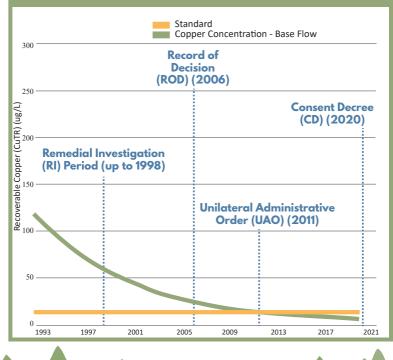
The Butte Priority Soils cleanup is planned for a variety of locations. If you live on the Hill or near the creeks this work will likely take place in your neighborhood.

The Silver Bow Creek flood plain and Blacktail Creek west of Kaw Avenue will see major attention. Historic mine wastes have been in the ground in this area for over a century. The groundwater beneath this area is impacted and can potentially make its way in to Blacktail and Silver Bow Creeks.

Six project locations generally located near Blacktail and Silver Bow Creeks will see extensive work. Grove Gulch, Northside Tailings, Diggings East, Buffalo Gulch, Blacktail Creek and its confluence, and Butte Reduction Works will see removal of historic mine waste, stream reconstruction, expansion of groundwater capture and treatment systems, and installation of stormwater treatment ponds.

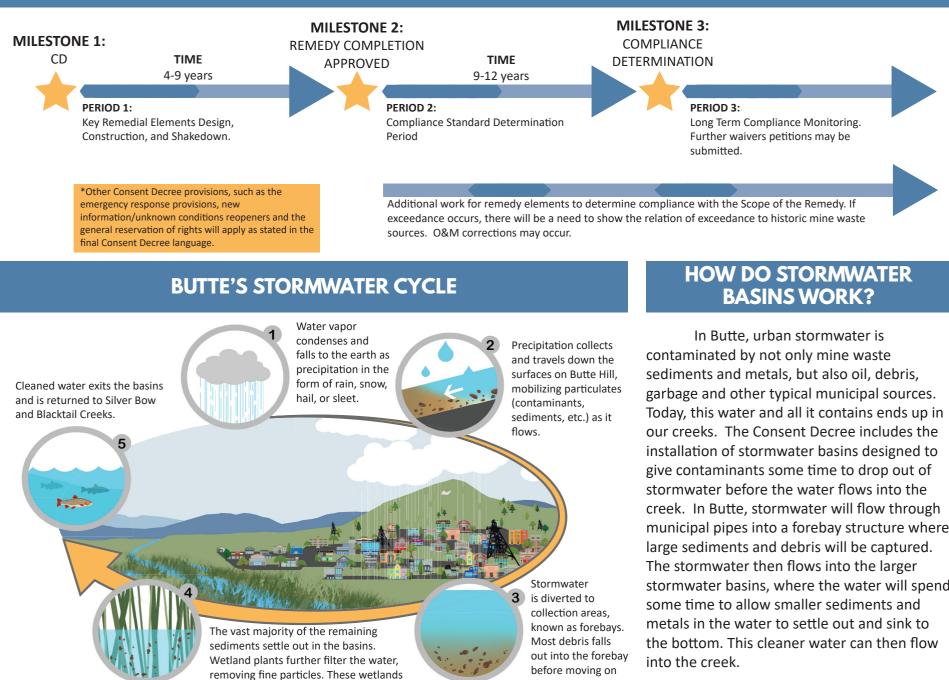
Areas across the Hill will be evaluated again to determine if more cleanup is necessary and if protection from stormwater flow is required. In addition to work happening on the Hill and in the creek corridor, drainages that discharge to the creeks will be controlled to prevent contaminated sediments from entering the creek.

TOTAL RECOVERABLE COPPER CONCENTRATIONS GOING DOWN



standards. This is called a Compliance Determination Period.

COMPLIANCE PROCESS



provide natural cleaning for the water as

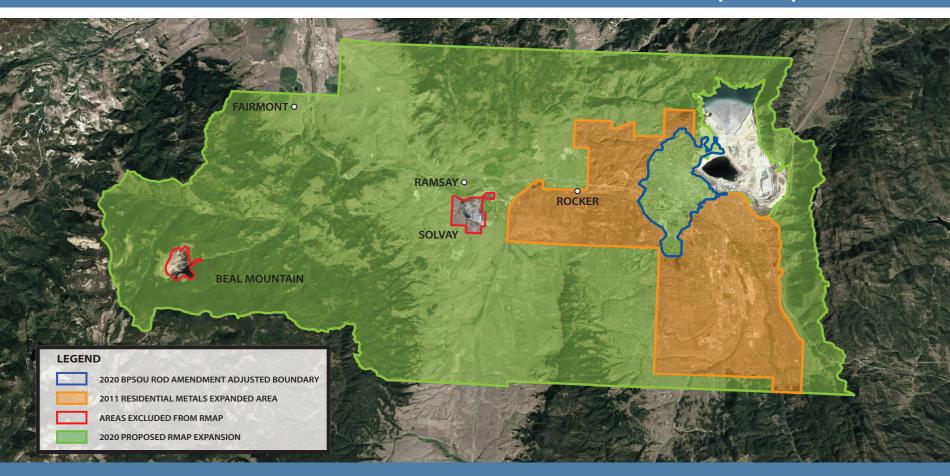
well as wildlife habitat.

to the stormwater

basin.



EXPANDED RESIDENTIAL METALS ABATEMENT PROGRAM (RMAP) AREA



RMAP ACTIONS



Home is assessed and determined to be above levels outlined in the Residential Metals Abatement Program.

The Residential Metals Abatement Program or RMAP is designed to mitigate potentially harmful exposure to residents living within areas impacted by past mining and smelting activities. The RMAP coverage area has been expanded to much of Silver Bow County. The program aims to mitigate exposures to sources of lead, arsenic, and mercury which may originate from both mining-related (waste rock, tailings, aerial emissions) and non-mining-related sources (lead-based paint and lead solder). An emphasis is placed on protecting children six years of age or less, and pregnant women. This Program is 100% funded through an Allocation Agreement with Atlantic Richfield Company.

ELEMENTS OF THE RMAP

- Sampling of residential soils, paint, attic dust, and indoor dust.
- Blood lead sampling for children and adults through the WIC program.
- **3** Education to the general public, contractors, realtors, etc. on lead, arsenic, and mercury.
- Data management and tracking of blood lead levels.
- 5 Abatement of soils, attic dust, paint,



Contaminated materials are removed and taken to a repository for containment.



Reconstruction is carefully completed on residential lots to limit potential recontamination.



Potential exposure to contamination removed and replaced with clean soil and surface treatments such as sod or beauty bark.

WHAT HAS BEEN DONE TO DATE

- Nearly 3,500 residential properties assessed
- 2 Over 1,800 attics sampled and 795 remediated
- **3** Over 2,300 yards sampled and over 450 remediated
- 4 150 lead-based paint projects completed

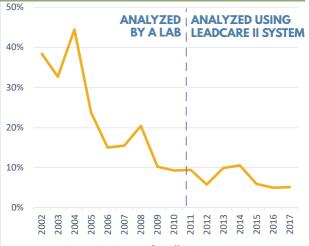
and/or indoor dust if sampling exceeds action levels.

EXPANSION DETAILS

The RMAP program has been a successful and key component of a protective clean up for Butte. The RMAP will move forward under a Unilateral Administrative Order, which will require Atlantic Richfield and Butte-Silver Bow to develop a new work plan for the program and define the scope of work for expanding the program to more areas of the County. The expansion will include all aspects of the program. It also ensures uninterrupted service of the existing program while the expansion details are finalized.

LEVELS CONTINUE TO DECREASE

PERCENTAGE OF BUTTE CHILDREN WITH ELEVATED BLOOD LEAD LEVELS



HOW TO PARTICIPATE IN THE RMAP PROGRAM

Contact the Butte-Silver Bow Residential Metals Abatement Program to schedule a home assessment or blood lead screening:

> Call 497-5040 Or Email ehassler@bsb.mt.gov bwarner@bsb.mt.gov canderson@bsb.mt.gov

AGREEMENTS IDENTIFY SIGNIFICANT COMMUNITY BENEFIT

FUNDING & FINANCIAL ASSURANCE

There is a lot of work to be done in Butte as a result of the Consent Decree. It will take over \$150 million to complete the remedies and other projects included in the Consent Decree. Atlantic Richfield will provide the funding to complete this work.

Because this work will take place over many years, the Consent Decree requires Atlantic Richfield to provide financial assurance (trust funds, bonds, insurance policies, or other instruments) to ensure there will be funds to pay for the work in the future. If Atlantic Richfield does not perform or pay for the work as required in the Consent Decree, then the EPA could use money from the financial assurance to complete the work.

Financial assurance includes the money Atlantic Richfield has set aside in trust accounts for use by Butte-Silver Bow to complete and maintain certain parts of the clean-up. The trust accounts grow with the interest they receive. An agreement between Atlantic Richfield and Butte-Silver Bow spells out the tasks funded by the trust accounts. The money is used to pay Butte-Silver Bow staff to implement the Residential Metals Abatement Program (RMAP), complete operations and maintenance, improvements to the municipal stormwater and sanitary sewer infrastructure, and to fund the Superfund Advisory Redevelopment Trust Authority (SARTA) account.

SILVER BOW CREEK CONSERVATION AREA (SBCCA)



THE SUSTAINABLE SITES INITIATIVE PRECERTIFICATION

Atlantic Richfield, Butte-Silver Bow, the State of Montana and the US EPA have engaged in numerous public meetings to ask the community what they want the center of Butte to look like after the clean-up work is done. The community responded and the parties have worked hard to capture the community's vision. The stormwater and groundwater remedies will be located in the Silver Bow and Blacktail Creek corridors, and the proposed Consent Decree sets aside approximately 120-acres for these remedies and surrounding land uses. These areas will be converted into connected greenways – natural park spaces that have reconstructed wetlands, flowing water, abundant native plants, and habitat for wildlife.



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habitat, and solitude for people who seek it throughout the park space. Grab some shade under one of many trees that will be planted. There will be a fishing pond at Northside Tailings to wet a line on a summer afternoon. A gathering area will be constructed at Diggings East that can be used for family barbeques or larger events such as art in the park, farmers market, outdoor education seminars, plays or small concerts.

And just one more thing, there will be an amphitheater at Butte Reduction Works. The design and placement of the amphitheater is being carefully considered so that it integrates into our local festival scene (without detracting from it) while also providing an enticing venue to artists of a broader regional scale. The amphitheater will make use of the reconstructed slopes near the slag walls and provide an epic view of not only the stage, but also of Timber Butte and of our Highland Mountains at the southern end of the valley.

Nearly 8-miles of trails and boardwalk will be constructed allowing users to access all corners of the park during all seasons. There will be play areas, interpretive and educational features for the inquisitive type, wildlife



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TIMELINES **Construction Timeline** Lexington Wetlands 2020 Grove Gulch Parrot Tailings Project (continues) 2021 Northside Tailings **Diggings East** 2022 **Buffalo Gulch 2023 Blacktail Creek** 2024 Butte Reduction Works *Timelines are approximate and subject to change. Years reflect when projects are scheduled to begin. Lower Area One (LAO) **Timeline** 2020 2037-2040 2026 Consent Construction Compliance Decree: Complete: Determination: Consent Decree SBCCA Projects Agencies is finalized Complete determine and Construction begin CMP **Begin SBCCA** Remedy Projects: Completion: Construction Begin starts Compliance Determination 2020 Period 2028

*Unreclaimed Areas, Insufficiently Reclaimed Sites, and Uncontrolled Surface Flow Area Projects will be performed concurrently with the corridor projects.

Want to learn more? For further information, please visit armontana.com