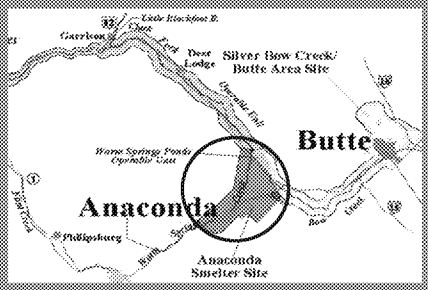
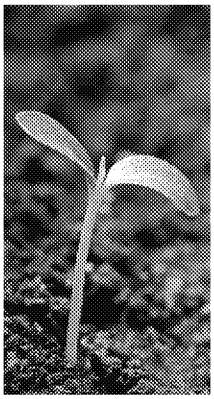
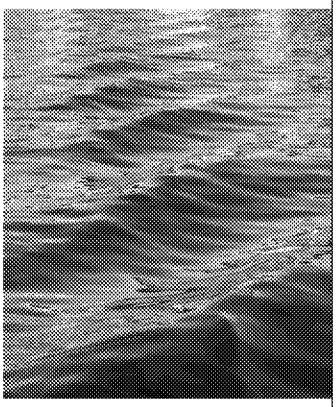


Summary of Anaconda Smelter Conceptual Agreement

December 2018

EPA
United States
Environmental Protection
Agency





Presentation Outline

- Introductions
- Status and next steps
- Conceptual agreement overview
- Work completed to date
- Work to be done
- Process moving forward

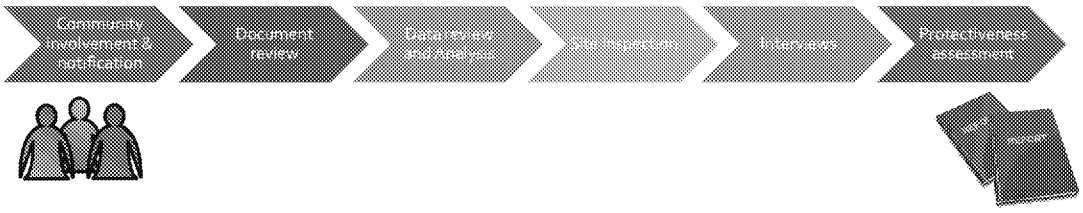
Goals Established in April 2018

- **Initiate delisting** of Mill Creek and Flue Dust operable units by the end of **2018. ON TRACK**
  - OU 15 – Mill Creek. Cleanup is complete. Anaconda-Deer Lodge County is working with developers to reuse the site.
  - OU 11 – Flue Dust. Cleanup is complete. Atlantic Richfield is developing a plan to minimize and manage leachate generated from the repository.
- **Begin delisting** the **entire site** no later than **2025**. **ON TRACK**
- **Reach agreement in principle** for cleanup with EPA, State of Montana, Atlantic Richfield, and Anaconda-Deer Lodge County **by July 31, 2018**. **COMPLETED**

EPA Five-Year Reviews

- Initiate the **sixth** Five-Year Review for Anaconda in 2019
- Studies and investigations include:
  - Health studies
  - Contamination in schools
  - Slag risk
  - Wildlife and livestock risk

The Five-Year Review Process

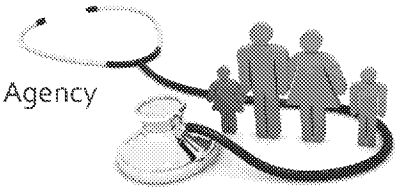


School Sampling Status

- Testing is for **lead and arsenic**.
- EPA sampled the **interiors** of Anaconda schools and Head Start this spring.
- Atlantic Richfield is testing **soils** at the same locations.
- Sampled classrooms, hallways, entrances, lunchrooms, gymnasiums and other spaces used by students and workers were **all below residential action levels.**
- **One soil area** was identified as having elevated levels.
- Elevated **attic dust** was found in two locations.
- **Cleanup completed**.

Interior dust sampling

Human Health Study Status



- EPA is **funding a health study** being conducted by the Agency for Toxic Substances Disease Registry (ATSDR).
- The study is designed to address **community health concerns.**
- The state and ATSDR held a **listening session** and presented the results of that session on July11th.
- ATSDR will conduct an **exposure investigation** in 2018/2019.
- The county and state will conduct a **community health assessment** evaluating mental health, addiction and aging concerns brought up during the listening sessions.
- EPA is currently conducting a **vegetable study** to evaluate fruits and vegetables being grown in Anaconda and the surrounding area.
- **Results** of the study are expected in 2019.

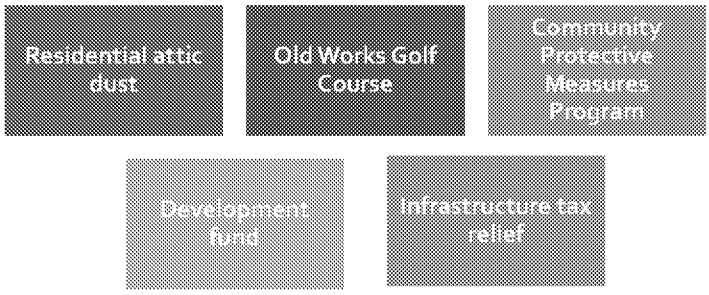
Conceptual Agreement Overview

- **December xx, 2018, confidentiality order modified** to publicly disclose certain assessments and other information about the proposed remedial action.
- Based on community input and collaboration between agencies and stakeholders, a **modified remedy proposal** has been developed.
- Under the proposed remedy:

Residential Yards	Attics	Commercial Properties	Slag Piles	Additional Options
• Sample all • Cleanup where needed	• All addressed under new cleanup program	• Sample all • Cleanup where needed	• Cover while allowing reuse	• Reduce contaminant loading to streams

Conceptual Agreement Overview (continued)

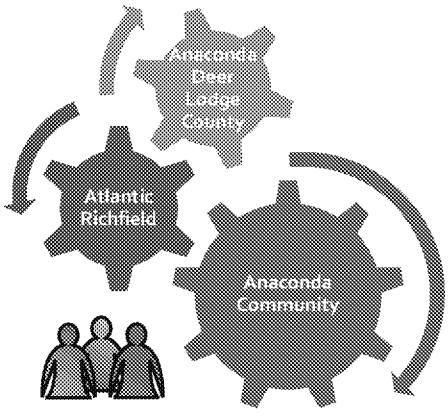
- **Atlantic Richfield would provide funding** to Anaconda-Deer Lodge County to support the remedy, implement institutional controls, and provide for community enhancement and development.
- Proposed funding would include:



- **Implementation** of these remedy and development projects **will support future delisting** of the Anaconda Smelter Superfund site.

Conceptual Agreement Overview (continued)

- Anaconda-Deer Lodge County and Atlantic Richfield will negotiate an allocation agreement to provide funding for **community enhancement and development projects**.
- Community enhancement and development projects would be developed through **community participation and visioning**.

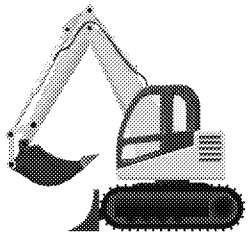


Community Enhancement and Development Projects

Work Completed to Date

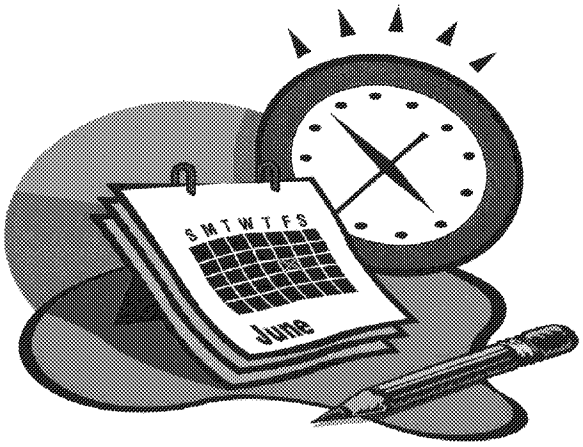
Remedial actions completed on over 80% of the site:

- Treated and disposed **1 million⁺ cubic yards** of hazardous waste (flue dust, Arbiter waste and beryllium).
- Consolidated **several million cubic yards** of smelter waste into disposal areas.
- **Capped Old Works smelter.**
- **Constructed** Jack Nicklaus designed **golf course**.
- Capped **5,000⁺ acres** (Smelter Hill and the Anaconda and Opportunity tailings impoundments).
- Created **700⁺ acres** of new or restored wetland areas.
- Treated and revegetated **12,000⁺ acres** of valley soils.
- Installed **miles of stormwater controls.**
- Restored/stabilized **miles of stream banks** on Warm Springs and Willow Creeks.
- Sampled and cleaned up **1,000⁺ residential properties**.



Work to be Done

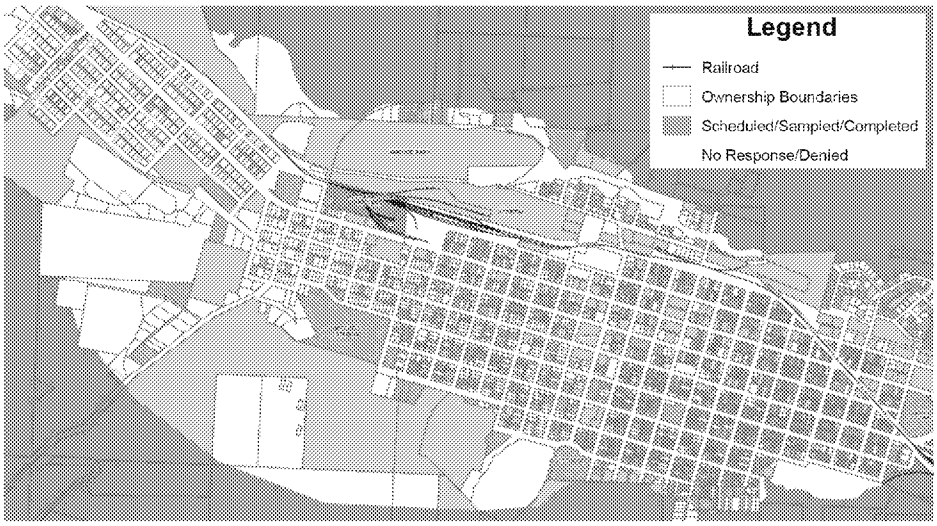
- Community soils
- Upland soils and surface water
- Slag
- Institutional controls



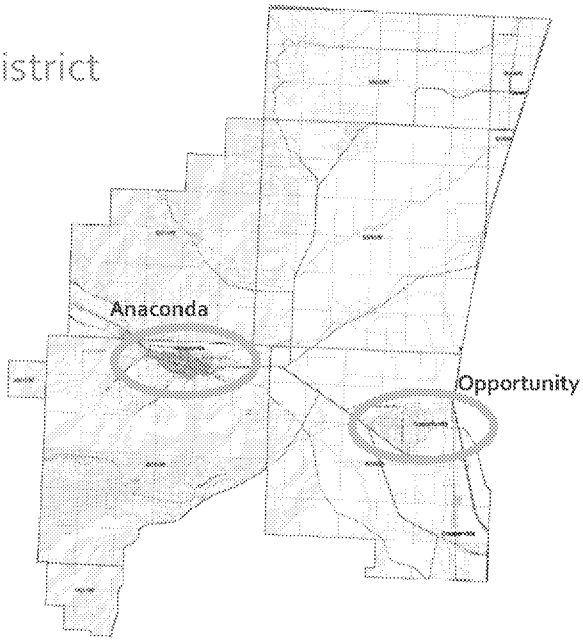
Community Soils – Major Elements

- **Residential Soils**
  - Sample all residential properties within the Site.
  - Cleanup all individual yard components that exceed **250 ppm arsenic** and/or **400 ppm lead** (no averaging)
- **Residential Attics**
  - Long-term program to **sample and cleanup, where needed, all residential attics** on site.
- **Commercial and Recreational Properties**
  - Sample and cleanup, where needed, **all commercial and recreational properties** on site.

Community Soils – 2018 Status



Superfund Overlay District



Upland Soils and Surface Water – Major Elements

- **Steep Slope Reclamation**
  - Use **innovative techniques** to establish vegetation on steep slopes.
  - Construct **stormwater BMPs** to reduce erosion on slopes.
- **Engineered Stormwater Controls**
  - **Construct sediment basins** to reduce sediment loading to streams.
- **Replace Railroad Bridges on Mill and Willow Creeks**
  - **Remove waste materials** associated with current bridge embankments.
- **Surface Water Management Plan**
  - **Monitor in-stream** for metals during **wet weather and normal flow** conditions.
  - **Replace State standards** with protective Federal replacement standards for certain contaminants of concern, if needed.

[Date-Time]

Upland Soils and Surface Water – Major Elements

Work on Slopes

Remedy	Quantity	Units
Aerial Seed	509	AC
Aerial Fertilizer	509	AC
Aerial Weed Spraying	113	AC
On-Slope Wattles	27,250	LF
Planting Trees & Shrubs	13	AC
Check Dams	16	EA

BMPs

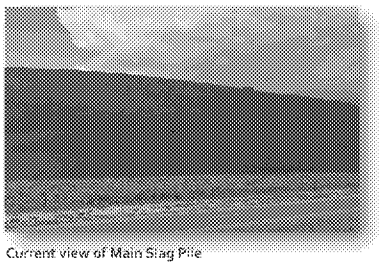
Remedy	Quantity	Units
Stone Check Dams	491	EA
Log Check Dams	1199	EA
Geo-Bag Check Dams	862	EA
Rock Grade Control	16	EA
Riprap Outlet Protection	5	EA

Upland Areas for Supplemental Surface Water Work

STREAM/DRAINAGE LINE
RDU DESIGNED CHANNEL SWPPS
PROPOSED LOG CHECK DAMS
PROPOSED SOIL-FILLED GEOBAG CHECK DAMS
PROPOSED STONE CHECK DAMS
ACCESS ROADS (SR)
RDU DESIGNED INFILTRATION TRENCH
RDU DESIGNED TILLAGE AREAS
EXISTING DESIGNED USE AREAS NOT ESTIMATED FOR DESIGN
INDUSTRIALLY VEGETATED AREAS (NV)
GARDEN AREAS (SV)
EXISTING RDU DESIGN AREAS
PROPOSED DETENTION PONDS
REDESIGN DETENTION PONDS

Slag Management – Major Elements

- **Regrade and cover** north and west faces of Main Slag Pile.
- **Initiate closure** of Arbiter slag pile.
- Continue to **allow reuse** of slag.
  - Require best management practices to protect workers and prevent releases to the environment.
  - Market use of west stack slag.
  - Develop metrics for final closure of slag piles.



Current view of Main Slag Pile

View of how a covered slag pile would look

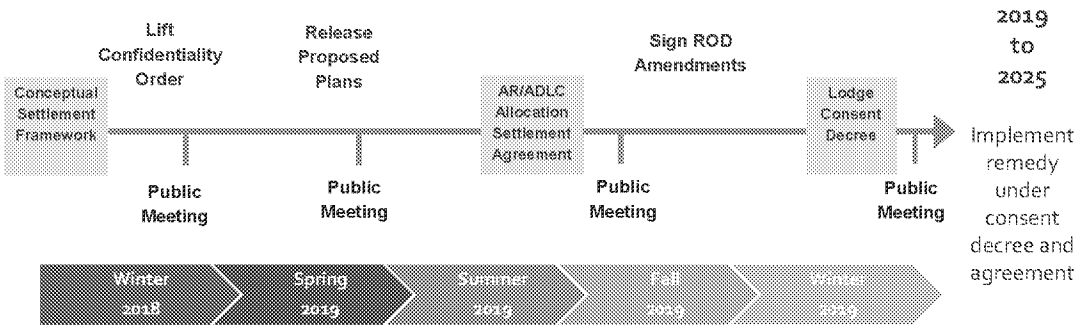
Institutional Controls – Major Elements

- **Development Permit System**
  - Soils handling protocols
  - Domestic well testing

- **Community Protective Measures Program**

Blood lead monitoring	Soil swap program	Interior dust program	Community outreach & education

Process Moving Forward



AR=Atlantic Richfield
ADLC=Anaconda-Deer Lodge County

Where We Are

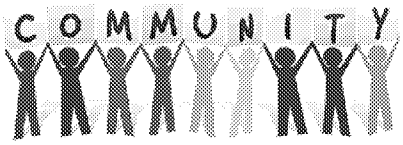
Timeframe	Decision or Action
Fall 2018	Complete Conceptual Settlement Framework
Fall 2018	File motion to lift confidentiality order. Hold public meeting.
Next Steps	
Spring 2019	Release proposed plans. Hold public meeting.
Summer 2019	AR and ADLC to complete allocation settlement agreement. Hold public meeting.
Fall 2019	Complete decision documents.
Winter 2019	Lodge consent decree. Hold public meeting
2019-2025	Remedy implementation under CD and agreement

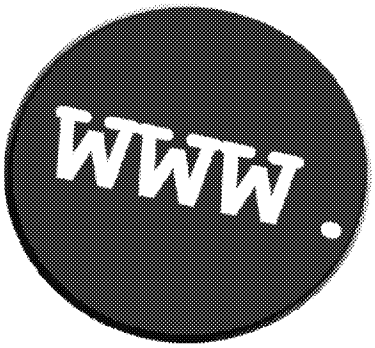
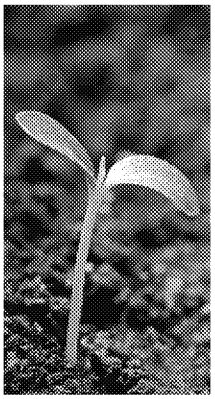
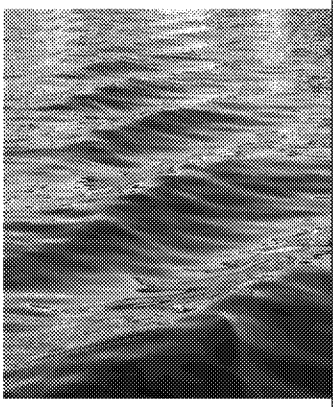
This slide doesn't add anything to the previous slide. I suggest getting rid of it or just keep the last line.

Community Engagement and Collaboration

- **How can stakeholders and the community participate?**
  - Technical Assistance Group
  - Superfund Task Force
  - Site work groups (public health study)
  - Participate/review and comment on decision documents
  - **Contact** Chris Wardell, wardell.chris@epa.gov, Community Involvement Coordinator
  - **Contact** Charlie Coleman, coleman.Charles@epa.gov, Remedial Project Manager

- **Website information**
  - https://epa.gov/superfund/anaconda-co-smelter





Questions