

# Bunker Hill Complex, Ninemile Basin Remediation Progress Update

ASRS Conference

Boise, Idaho

June 6, 2023

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# Presentation Topics

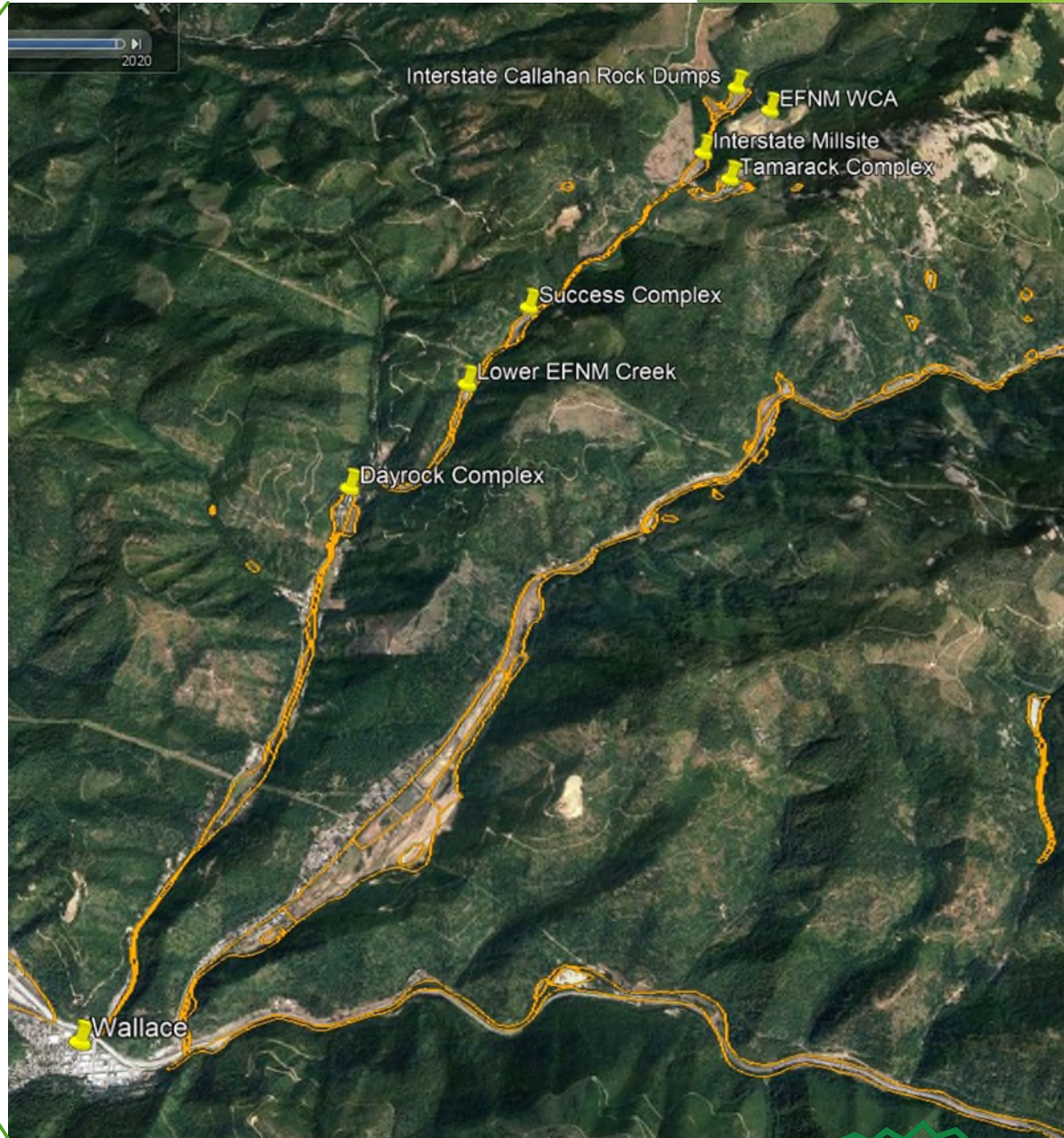
- ▶ Background
- ▶ Ninemile Projects
  - ❖ Interstate Callahan Rock Dumps
  - ❖ Success Complex
  - ❖ Interstate Millsite
  - ❖ Lower EFNM Creek
  - ❖ Tamarack Complex
  - ❖ Dayrock and LEFNM Creek

# Bunker Hill Superfund Background

## SUMMARY OF ASARCO SETTLEMENT

- ▶ ~\$435 million for cleanup of the CDA Basin
- ▶ Coeur d'Alene Trust was formed to oversee and manage the money for cleanup under direction from EPA

# Wallace, Idaho



# Basis of Designs

- ▶ Achieve soil and sediment concentrations less than or equal to 530 mg/kg lead.
- ▶ Restore native ground surface within excavated areas to match surrounding native conditions.
- ▶ Restore stream channels, floodplains and riparian areas within the site to conditions similar to upstream reference areas.
- ▶ Minimize operations and maintenance and institutional controls requirements.
- ▶ Maintain recreational use and access consistent with current conditions and reasonably anticipated land use as determined by EPA, other Federal land management agencies, and the current landowner.

# Project and Design Constraints

- ▶ Short construction season (approximately 120 working days) due to weather conditions
- ▶ Limited area for construction activities and stockpiling of materials
- ▶ Working on steep slopes
- ▶ Coordination with design and construction of the EFNM WCA



# Interstate Callahan Rock Dumps 2014-2015

# Construction Summary

- ▶ Excavated 215,928 bank cubic yards (bcy) of mine waste rock
- ▶ Placed ~27,000 bcy general backfill
- ▶ Constructed ~1,700 LF of EFNM Creek
- ▶ Revegetated ~18 acres



# Upper Rock Dump





# Lower Rock Dump





# EFNM Creek





# Success Complex 2016-2019





# Construction Summary

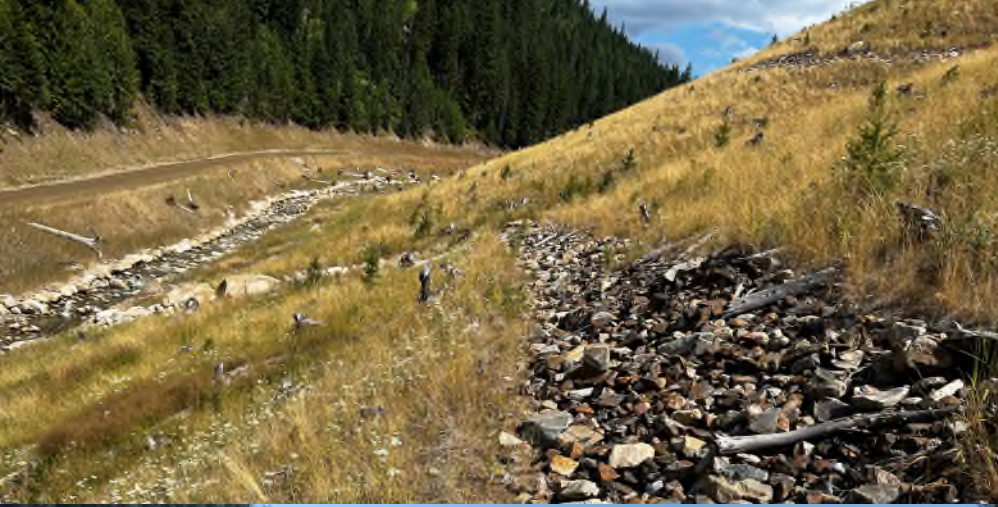
- ▶ Excavated 387,000 bank cubic yards (bcy) of mine waste rock.
- ▶ Placed ~12,000 bcy general backfill
- ▶ Constructed ~2,200 LF of EFNM Creek
- ▶ Revegetated ~14 acres

# Lower Success





# Upper Success





# Interstate Millsite 2019-2020



# Construction Summary

- ▶ Excavated 174,000 bcy of mine waste rock.
- ▶ Placed ~28,000 bcy general backfill
- ▶ Constructed 1,135 LF of EFNM Creek
- ▶ Revegetated ~12 acres

# Pre-Construction





# Post Construction





An aerial photograph showing a large-scale construction project in a mountainous, forested region. A wide, light-colored dirt road or access path runs diagonally across the center of the image. To the left of the road, there is a large, cleared area of brown earth, possibly a construction site or a cleared area for a reservoir. The surrounding landscape is covered in dense green coniferous trees. In the bottom right corner, there is a logo for Pioneer Resource Services, Inc. with a stylized mountain range above the text.

Tamarack Complex  
2022-2024  
Currently Under Construction



# Design Summary

- ▶ Excavate 390,000 bcy of mine waste rock.
- ▶ Place ~5,000 bcy general backfill
- ▶ Construct 700 LF of EFNM Creek
- ▶ Revegetate ~20 acres

# Pre-Construction





# During Construction





# Dayrock and Lower EFNM Creek 2021-2024 Currently Under Construction

Dayrock Complex

Lower EFNM Creek



# Design Summary

- ▶ Excavate 268,000 bcy of mine waste rock.
- ▶ Place ~48,000 bcy general backfill
- ▶ Construct 7,850 LF of EFNM, Ninemile and WFNM Creek
- ▶ Revegetate ~29 acres



# Lower EFNM Creek





# Dayrock Complex





# Lessons Learned

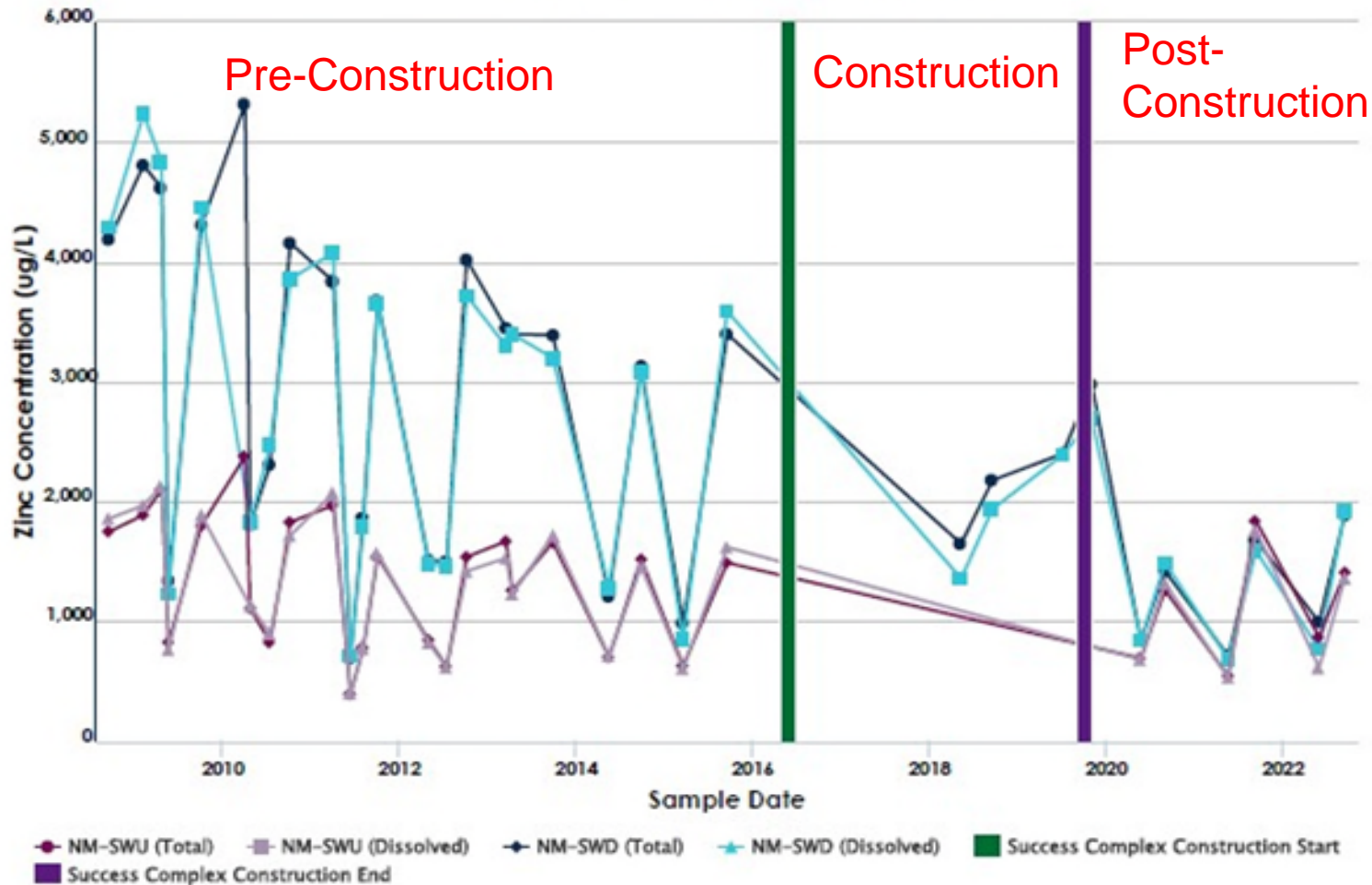
- ▶ Flexible Designs
- ▶ Flexible Contracting Mechanisms
  - ▶ Unit Rate Bids
  - ▶ Time and Materials
- ▶ Removal of Saturated Waste is necessary.
- ▶ Use of cleared and grubbed materials, wood debris, and Hydro Straw BFM are viable erosion control methods on steep slopes



# How are we doing



Graph G-2d  
Zinc in Surface Water  
Coeur d'Alene Trust  
Success Complex, Ninemile Basin  
Upper Coeur d'Alene Basin, Idaho





# THANKS





# QUESTIONS