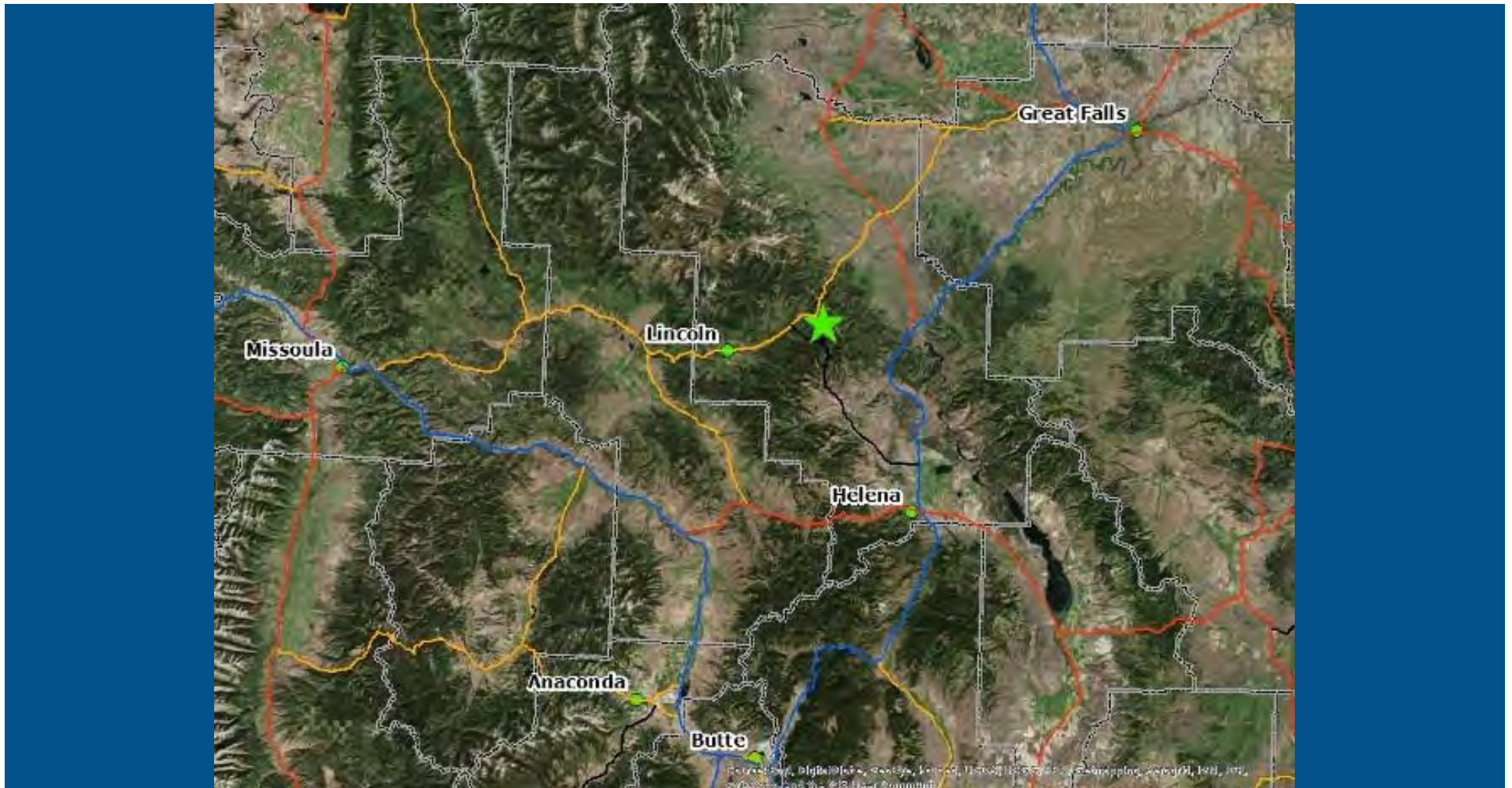


Upper Blackfoot Mining Complex a.k.a. The Mike Horse



UBMC History



Expansion in the 1940s – WWII
lead and zinc for paint and ammunitions



1975 Flood Event

Approximately 200,000 cubic yards of tailings from the impoundment were washed down the valley in this single event.



UBMC Impacts

Cleanup Standards for Water vs 2014 Sample

<u>Metal</u>	<u>Std.</u>	<u>2014</u>
Arsenic	.01	<0.003
Cadmium	.0001	.011
Copper	.0029	.017
Lead	.0006	.0077
Manganese	.43	.005
Zinc	.037	2.57

All results are in parts per million
Standards in **bold** are from DEQ-7
2014 sample is from Mike Horse Creek



UBMC Funding/Ownership

Settlement Funding

\$8M – ARCO

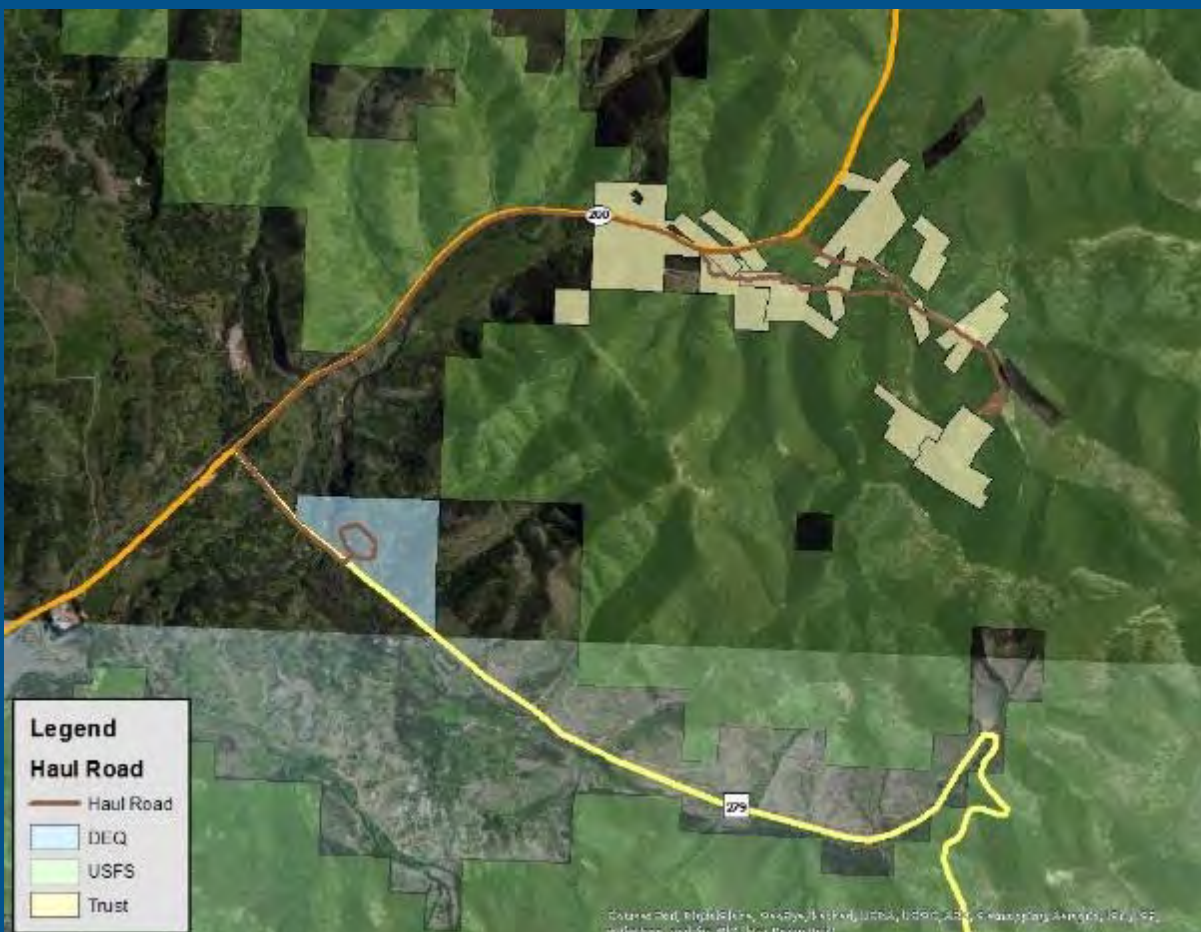
\$8M – ASARCO

\$23M – ASARCO Unsecured claims

\$39M Total – Jointly held by DEQ and DOJ-NRDP

Of the \$39M settlement, \$1M was allocated to USFS for oversight of cleanup and restoration on NFS lands

\$10M – ASARCO for water treatment and management of former ASARCO lands, held by a trust set up for the benefit of the people of Montana and the United States



UBMC Partnerships and Stakeholders



A special thanks to our neighbors for their patience and understanding throughout the construction process!



Lincoln Chamber of Commerce
Upper Blackfoot Valley Community Council



UBMC Contacts

Department of Environmental Quality

David Bowers - Project Officer

dbowers@mt.gov, (406) 444-6335

Shellie Haaland - Construction Manager

shaaland@mt.gov, (406) 431-1401

Department of Justice

Natural Resource Damage Program

Beau Downing – Restoration Project Officer

beaudoing@mt.gov, (406) 444-0291

US Forest Service

Steve Opp – On-Scene Coordinator

j.opp@fs.fed.us, (406) 495-3716

Reid Stovall – Forest Engineer

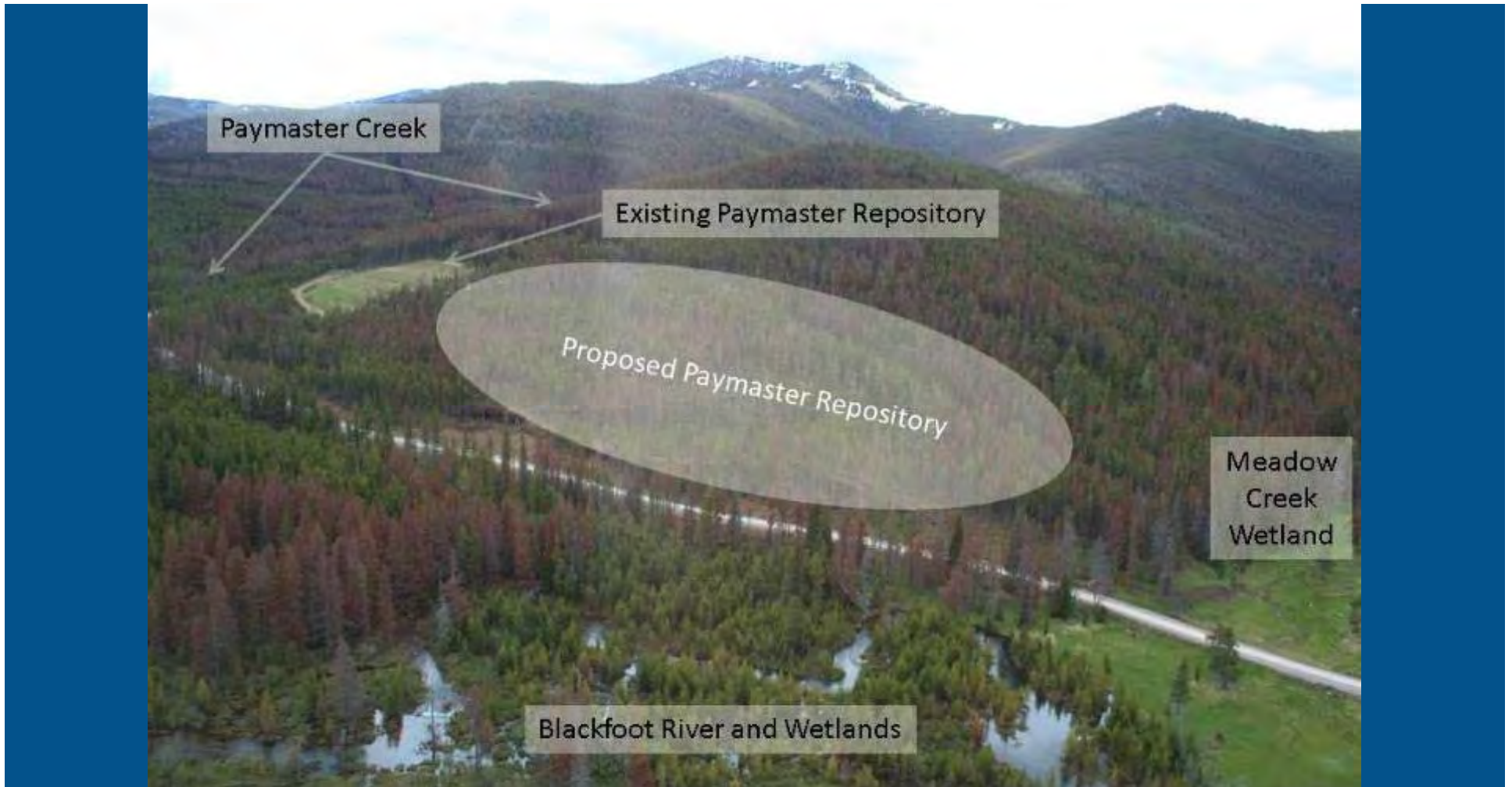
reidstovall@fs.fed.us, (406) 495-3766



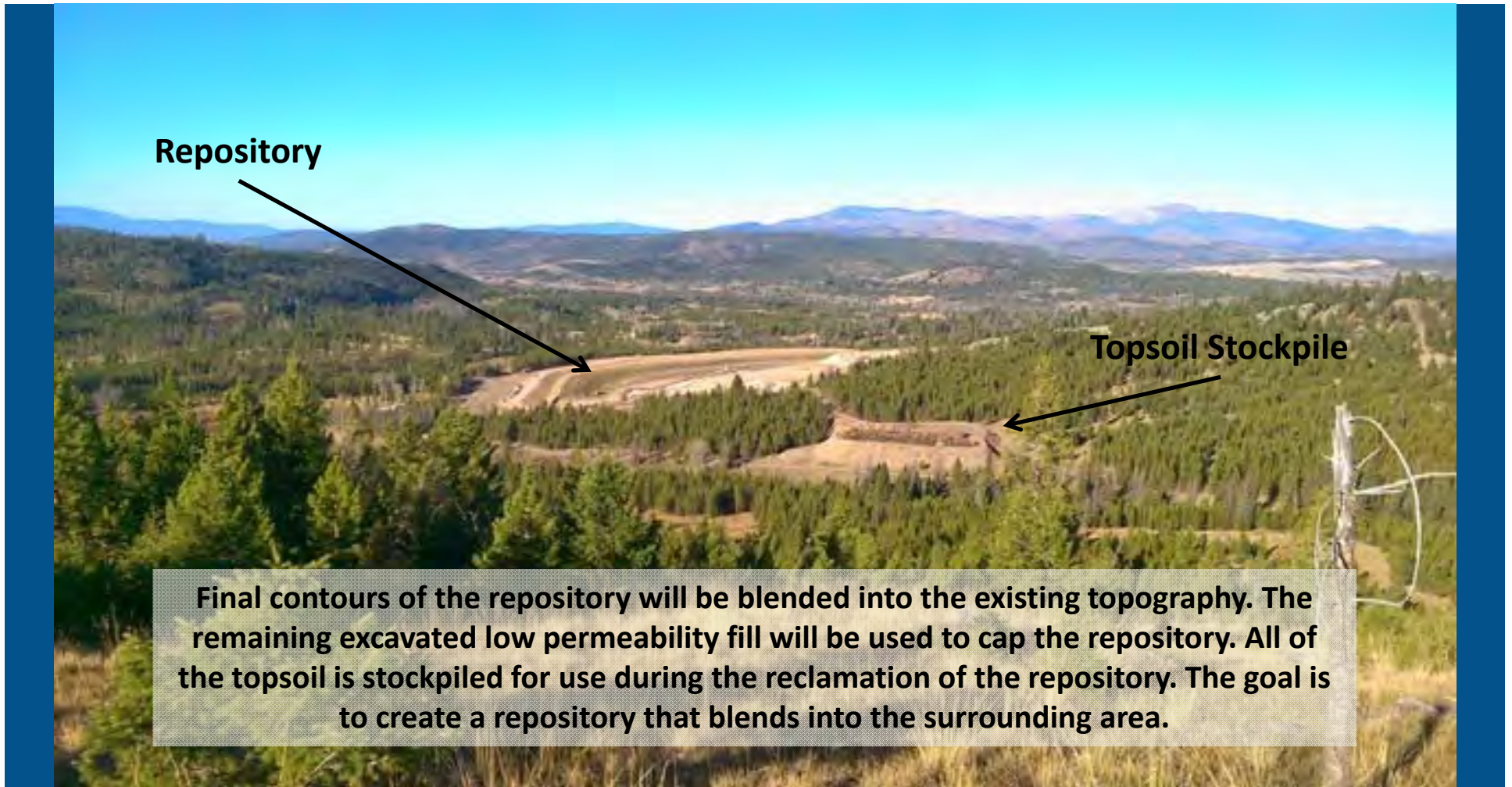
UBMC Construction Phases



UBMC Proposed Paymaster Repository



UBMC Repository



UBMC Repository



UBMC Repository Floor Construction



UBMC Repository Floor Construction



UBMC Repository Floor Construction and Tailings Placement

**2' Low Permeability Fill
(Earthen Liner)**

Tailings Placement



UBMC Repository



Impoundment Removals



Old Mike Horse Repository



Mystery Pipe



Blue Goo

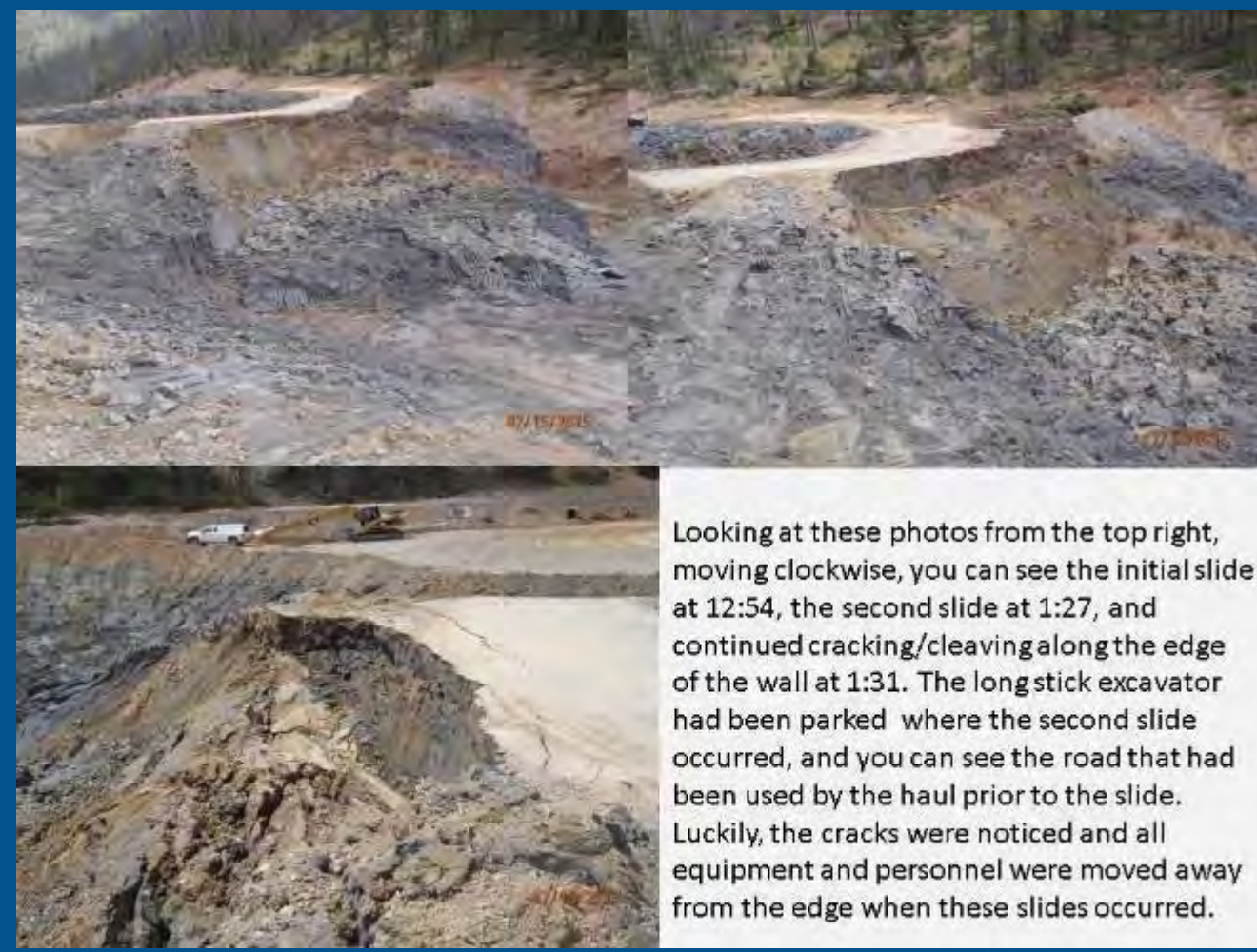


Video:

[Graygoo1.MP4](#)



Slides/Unstable Soils



Video:

[UnstableSoils.MP4](#)

Looking at these photos from the top right, moving clockwise, you can see the initial slide at 12:54, the second slide at 1:27, and continued cracking/cleaving along the edge of the wall at 1:31. The longstick excavator had been parked where the second slide occurred, and you can see the road that had been used by the haul prior to the slide. Luckily, the cracks were noticed and all equipment and personnel were moved away from the edge when these slides occurred.

Long Stick/Excavation Lifts



Labor Day Rains



Saturated Sands



Saturated Sand



Success!!!



Video: [Success.mp4](#)



UBMC Restoration



UBMC Restoration



UBMC End of Season



Public Participation



UBMC Tours



UBMC Tours



UBMC Paymaster Creek



UBMC Paymaster Creek



UBMC Iron Fen



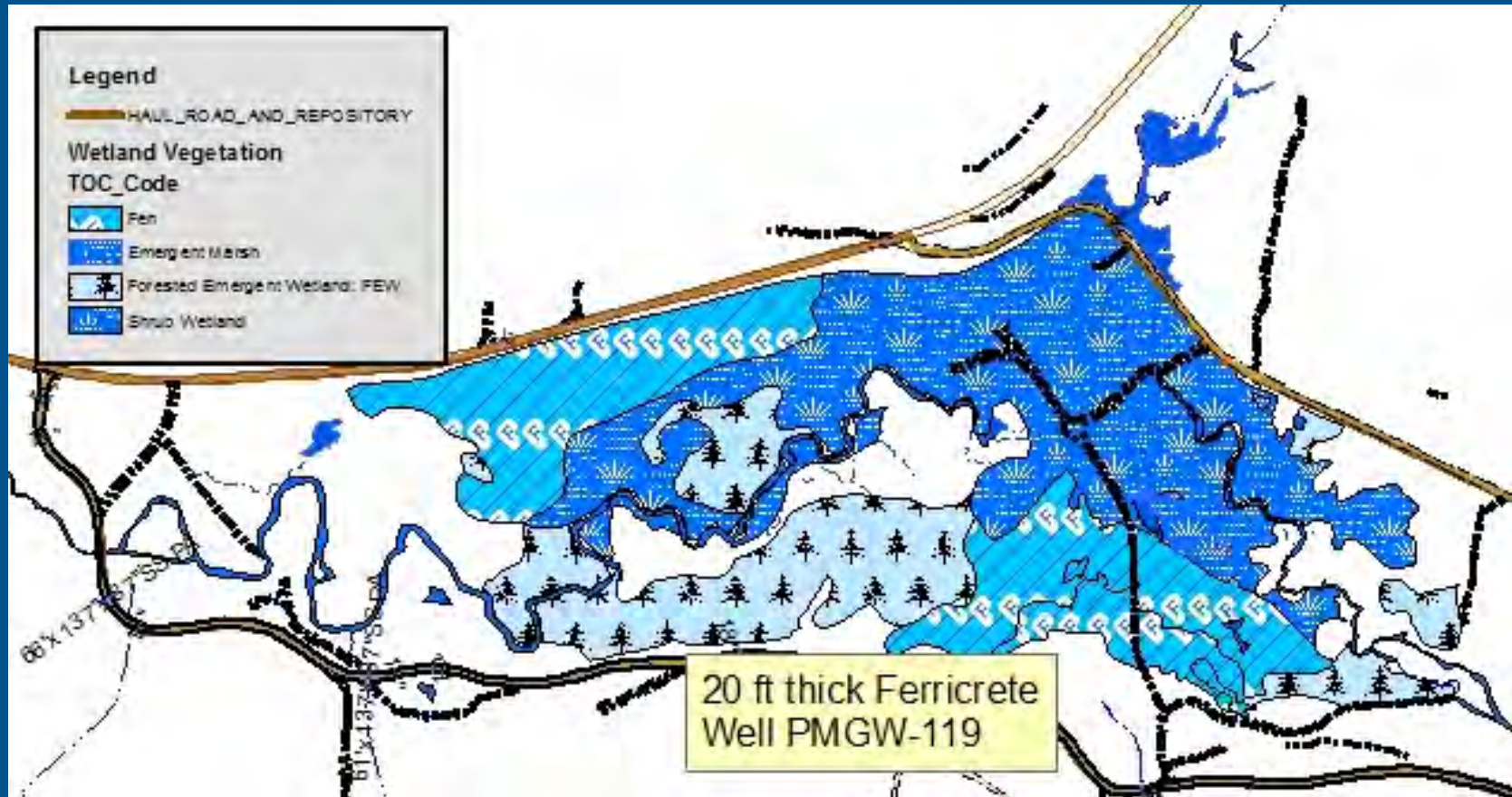
UBMC Forested Emergent Wetland



UBMC Marsh Fen-Forested Emergent Wetland Interface



UBMC Title



Questions?

For More Information:

Search: ubmc virtual tour montana

<http://deq.mt.gov/Land/statesuperfund/ubmc/virtour>

Shellie Haaland (406) 431-1401

