

Closure and Reclamation of the Troy Mine

Mine Design, Operations & Closure Conference

May 8, 2018

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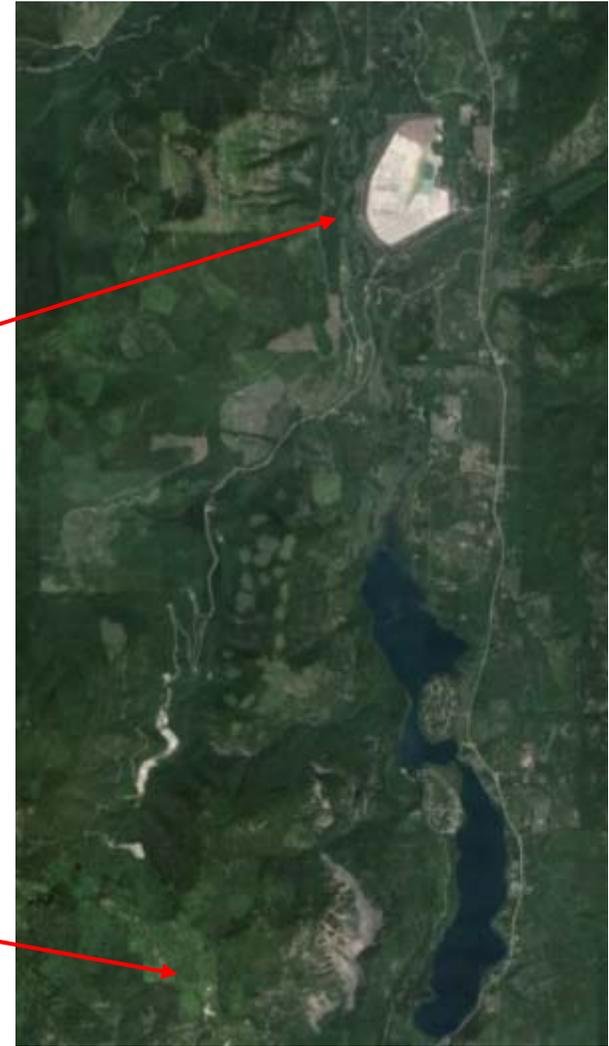
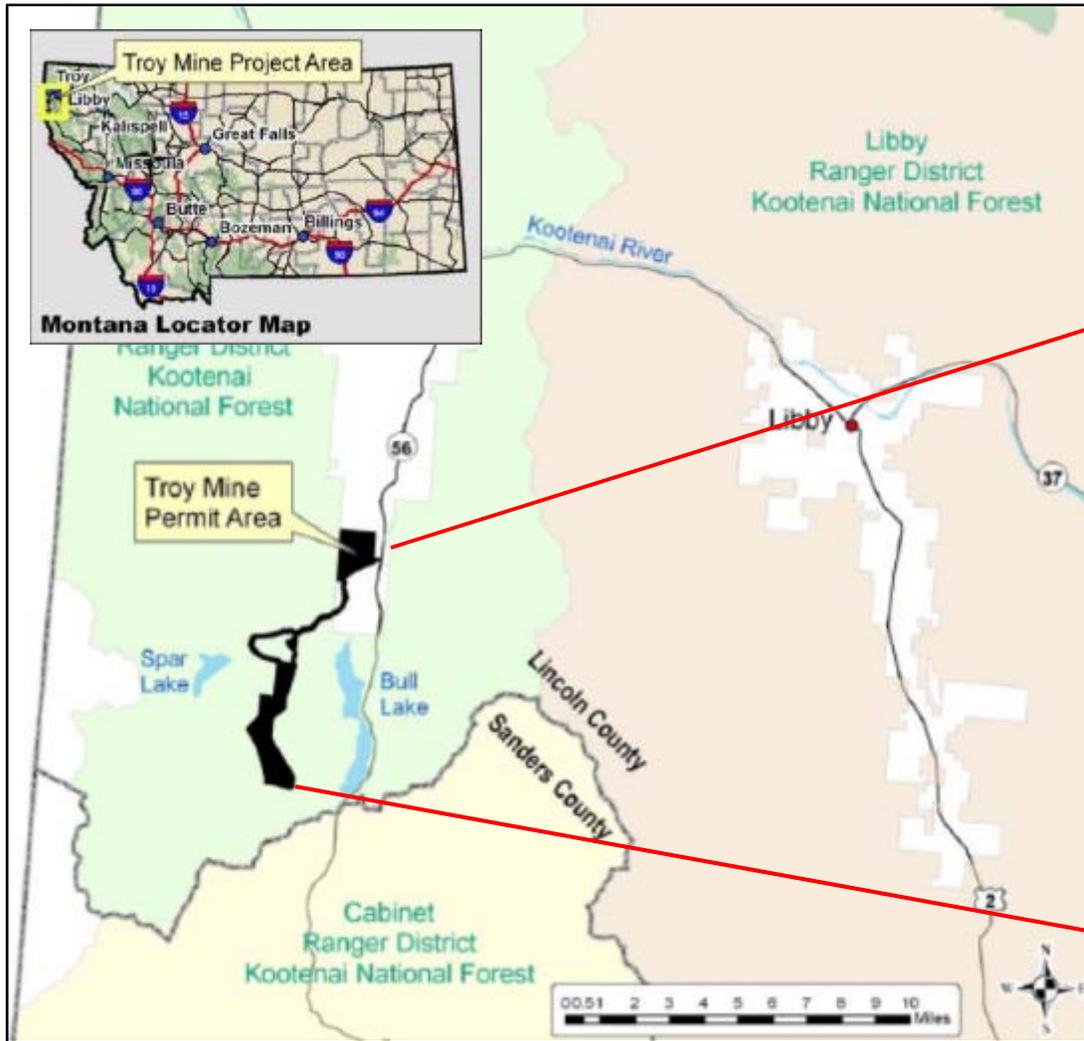


Hecla Mining Company

- Headquartered in Coeur d'Alene, Idaho
- Modern mining technology, mitigation and reclamation
- Long lived assets with a commitment to local hiring and spending



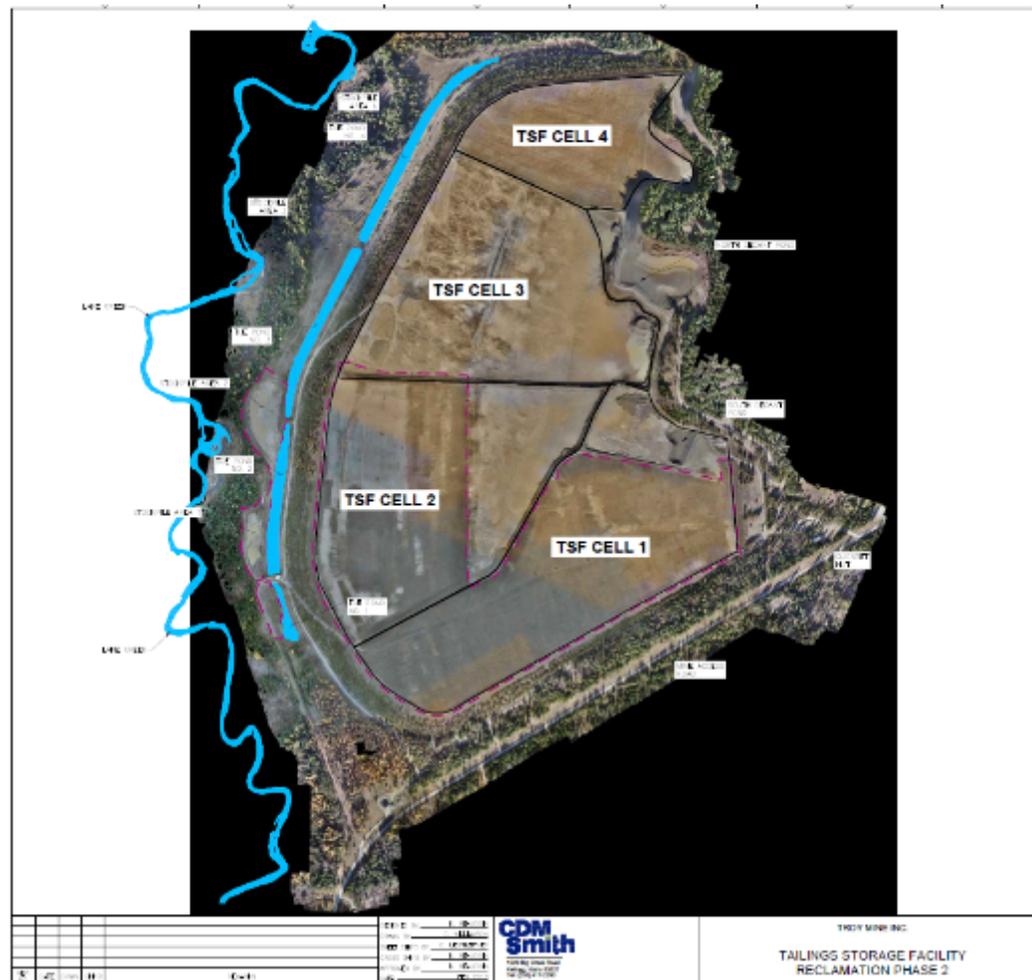
Troy Mine Location





Reclamation Phase 1 Overview

- Reclamation activities focused on the Tailings Storage Facility (TSF)



Reclamation Phase 1 Overview



Key Concept: Reclamation Planning and Sequencing

- **Contractor identification and selection**
- **TSF Water Management**
- **Mill building and site reclamation**
 - ☐ **Planning for future building reclamation/demolition**

Key Concept: Reclamation Planning and Sequencing

- Mill building and site reclamation



Key Concept: Flexibility and Adaptation

- **Changes to cover design**
- **Planting Schedule**

Key Concept: Flexibility and Adaptation

➤ Changes to cover design

Original ROD and Reclamation plan = 18" coversoil

TMI proposal: Reduce thickness to 8"

- No statistical difference in metal uptake and vegetative cover
 - Embankment areas with 20-30 year established vegetation

MT DEQ approval: Mosaic alternative

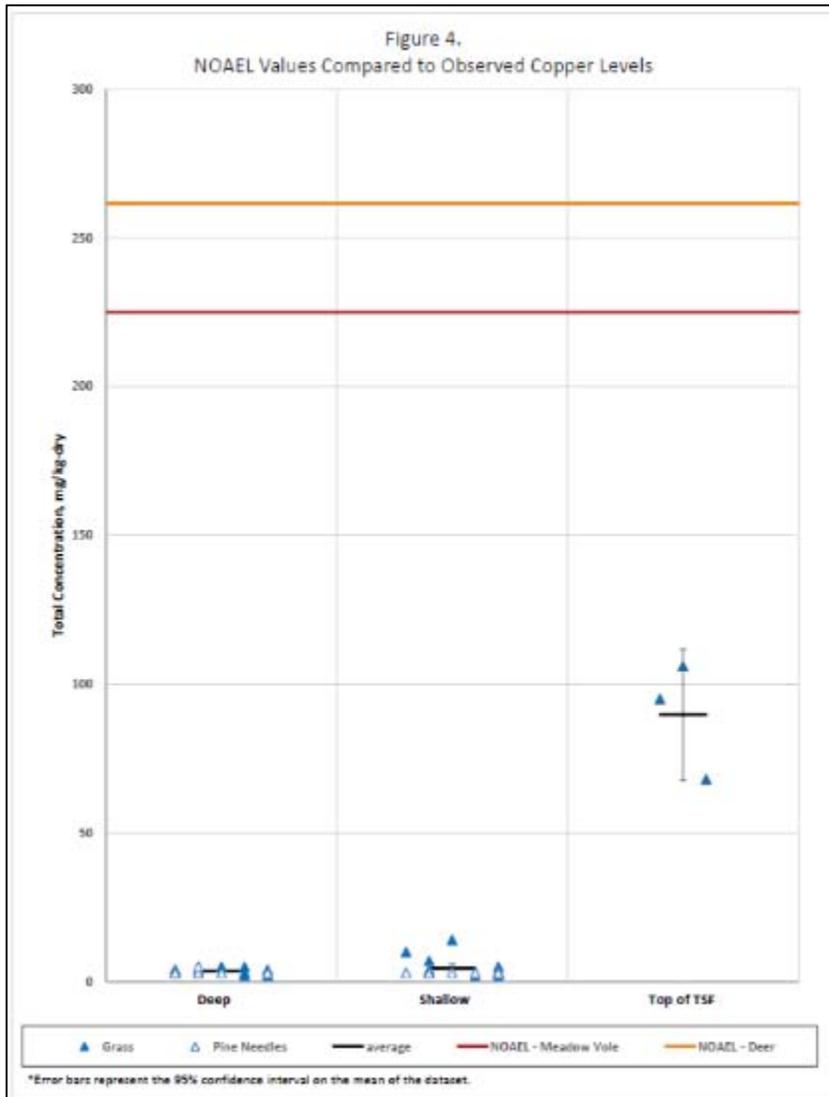
- Cells 1 and 2 – 8" coversoil
- Cell 3 - 10" borrow material and 8" coversoil
- Cell 4 - 6" coversoil over current borrow soil

Cover Soil Evaluation

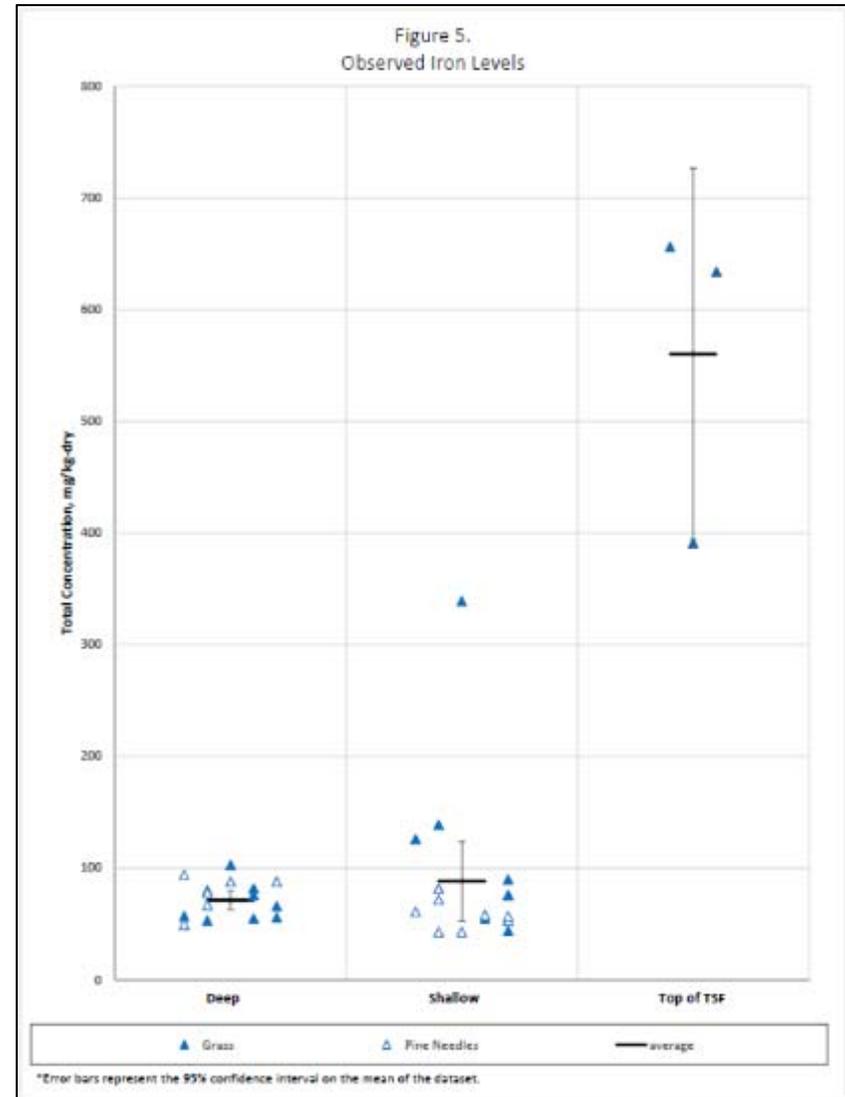


Cover Soil Evaluation

Copper

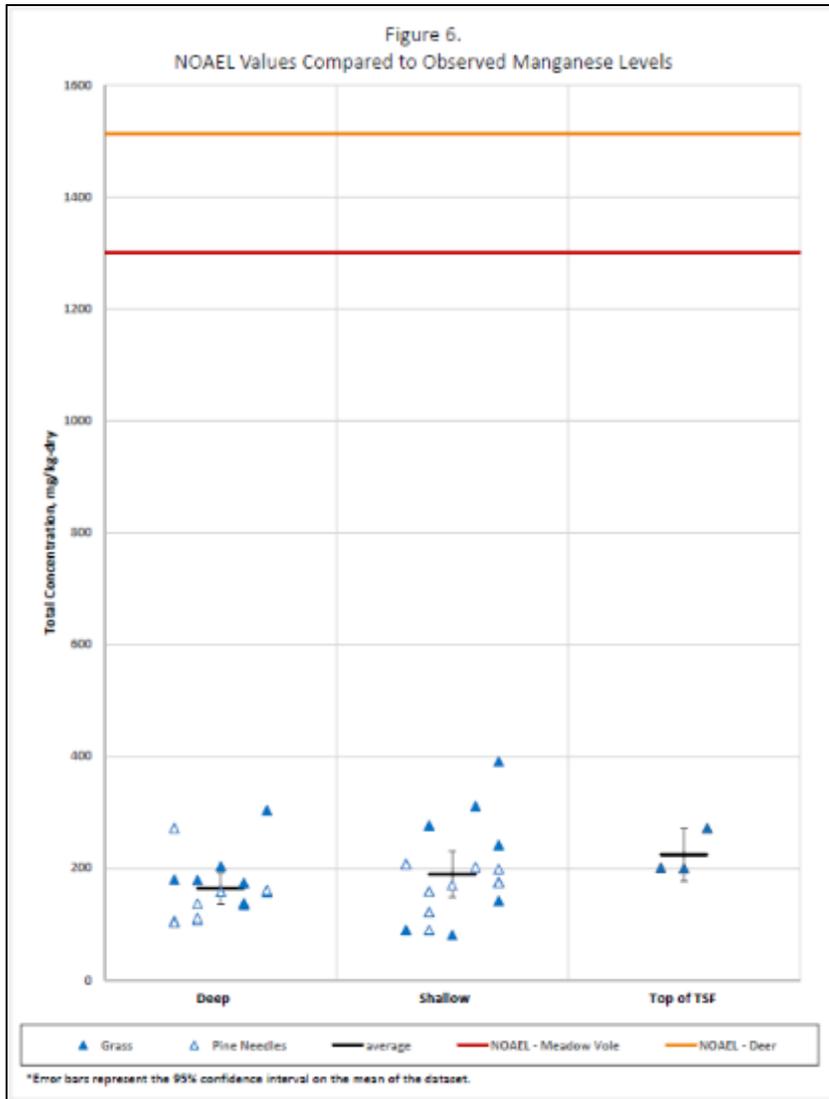


Iron

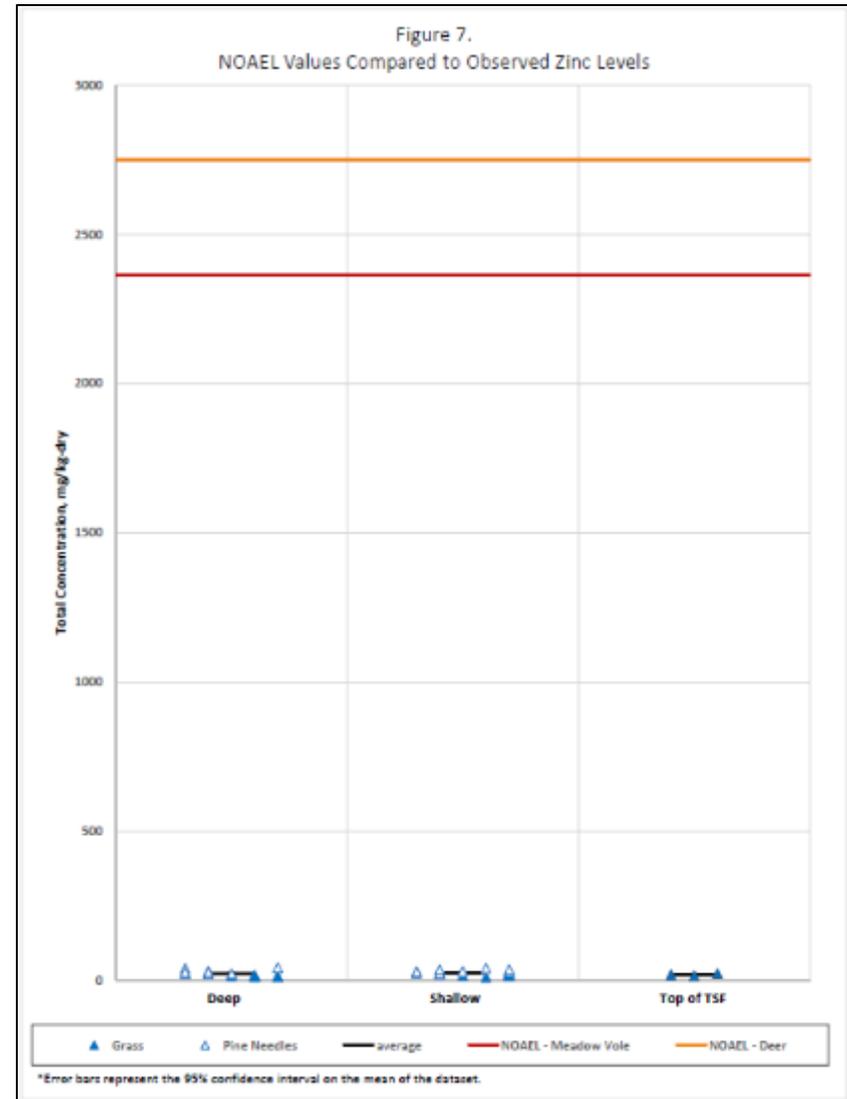


Cover Soil Evaluation

Manganese

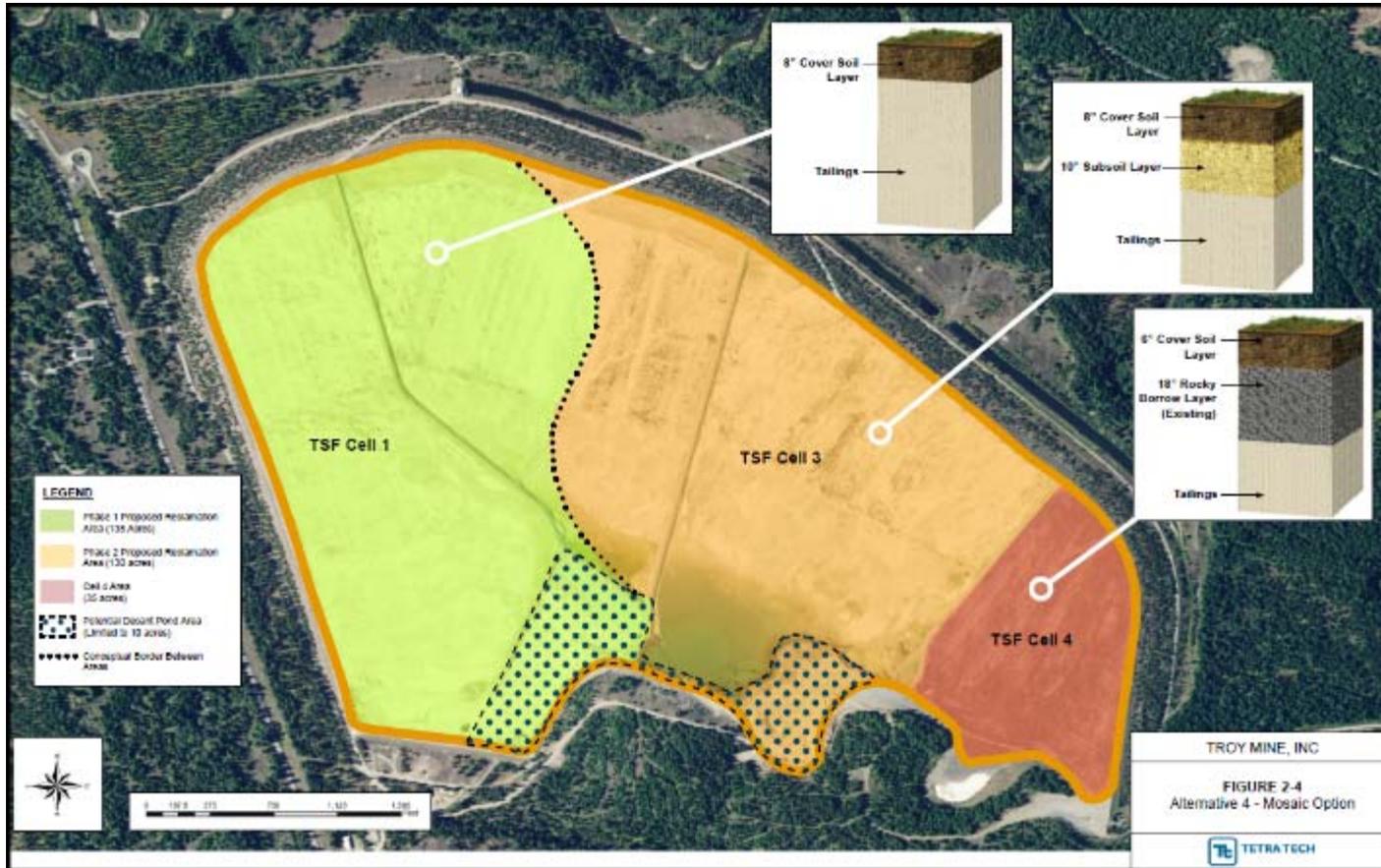


Zinc

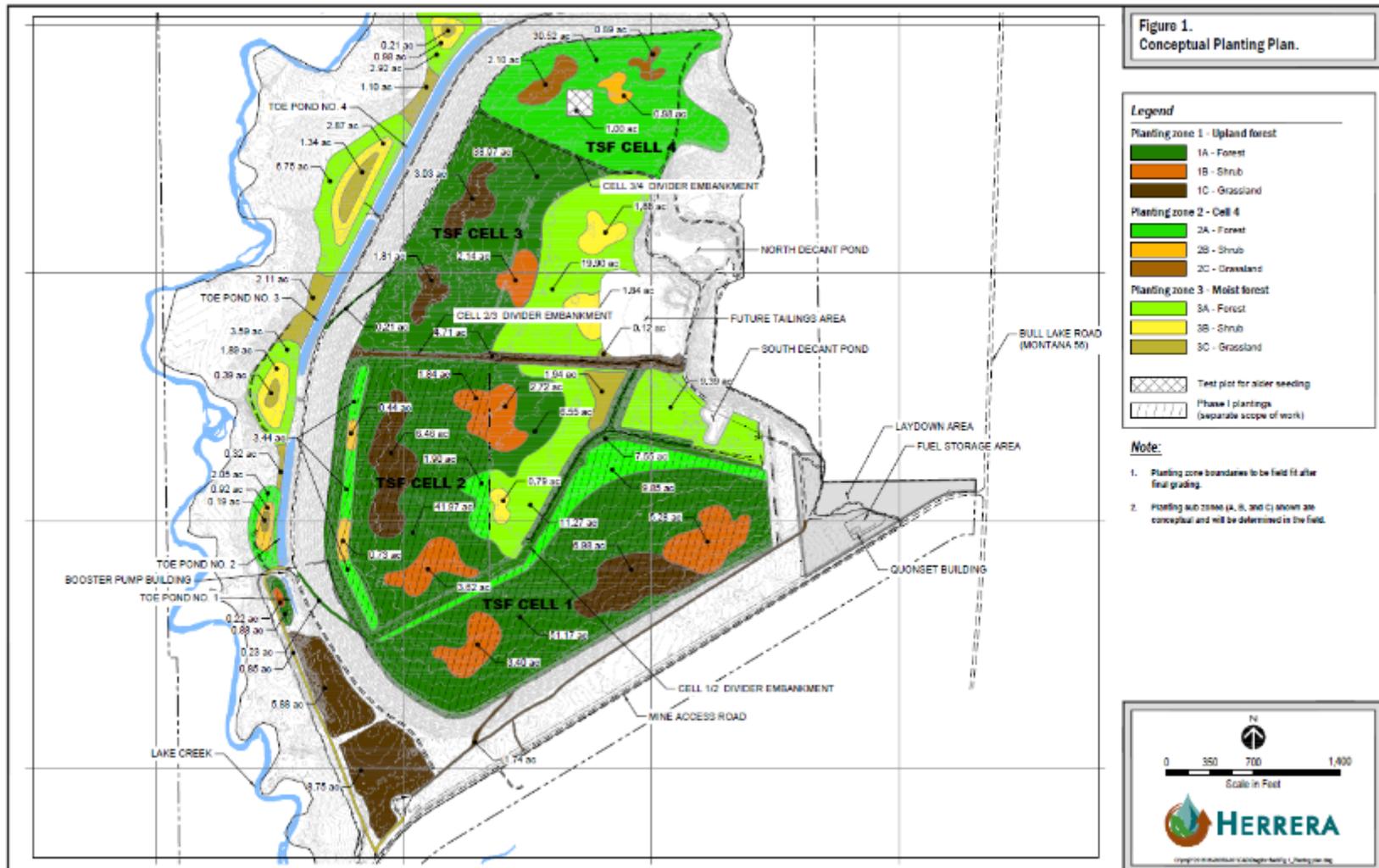


Key Concept: Flexibility and Adaptation

- Changes to cover design: Mosaic Alternative



Revegetation Plan



Key Concept: Local Expertise and Resources

- **Revegetation Plan**
 - ❑ **Goal: Re-establish vegetation communities dominated by native species**
 - ❑ **Herrera**
 - Design and Oversight
 - ❑ **Confederated Salish and Kootenai Tribe (CSKT) Nursery**
 - Seed collection, cleaning, storage and treatment



What's Next

- Focus of 2018 will be TSF Reclamation Phase II

Activities to Complete in 2018

1. TSF Reclamation Phase II
2. Long-term Water Management
3. Adit, mill site, and associated buildings
4. Long-term Monitoring

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