

Welcome

HOLDEN MINE REMEDIATION PROJECT UPDATE



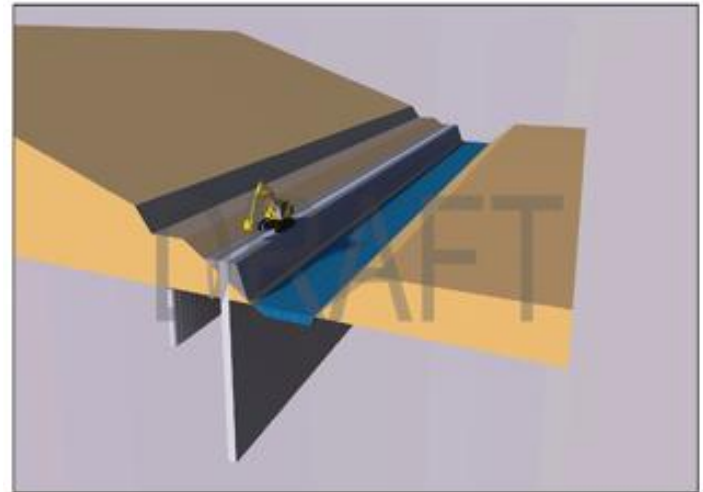
April 30 2014

Why clean up the Holden Mine?

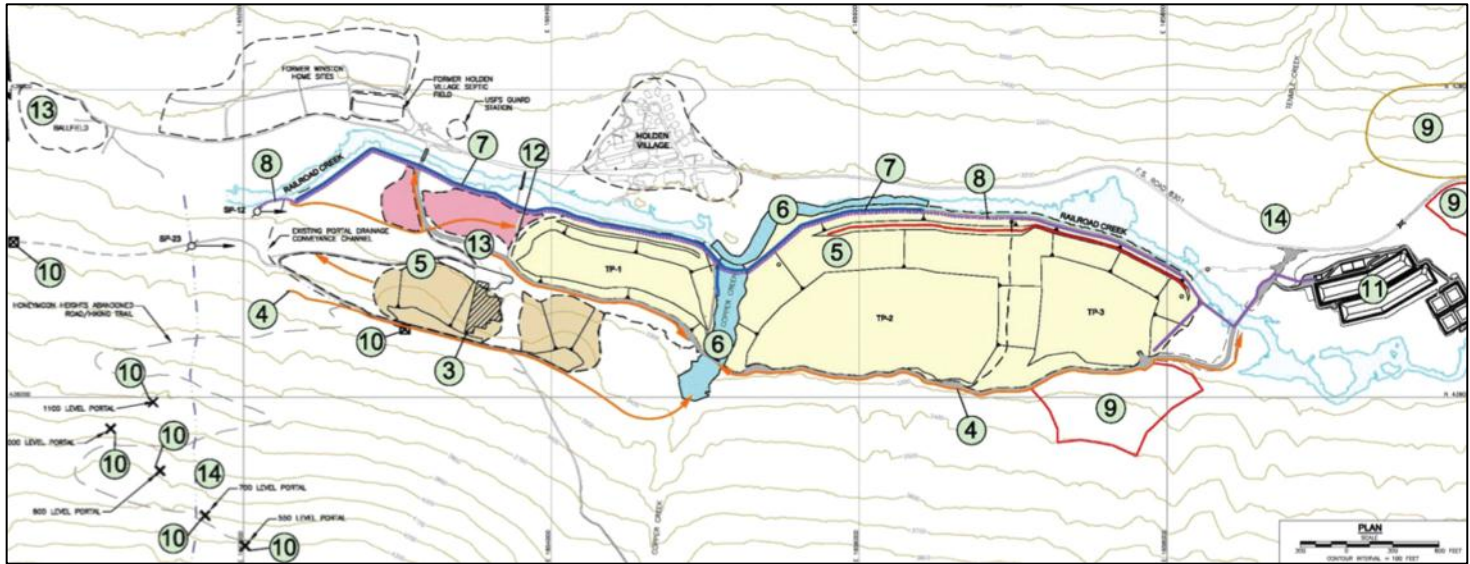
- Federally mandated cleanup to address environmental problems from the old Holden Mine:
 - Snowmelt and rainwater mix with metals to create acid mine drainage from mine portal, and acid rock drainage (ARD) from tailings and waste rock piles
 - ARD affects groundwater and surface water quality, including in Railroad Creek
 - While creek water is safe for human consumption downstream of Holden Village, it contains concentrations of hazardous substances that exceed water quality standards for aquatic life
 - Slopes of tailings piles are too steep to withstand a large earthquake
 - Mine-area soils contain concentrations of natural occurring metals
 - No tax dollars involved; Rio Tinto pays for and manages project

2014: a big and busy year

- Cleanup work began in 2012
- 2013 first year of heavy construction
- 2014 bigger and busier:
 - Installing the below ground barrier wall to collect contaminated water
 - Re-grading and stabilizing tailings



Phase 1 Remediation Plan



Preliminary, under review by regulatory agencies

Remediation Plan



Cap re-graded tailings with crushed stone and growing medium, then plant



Demolish mill building

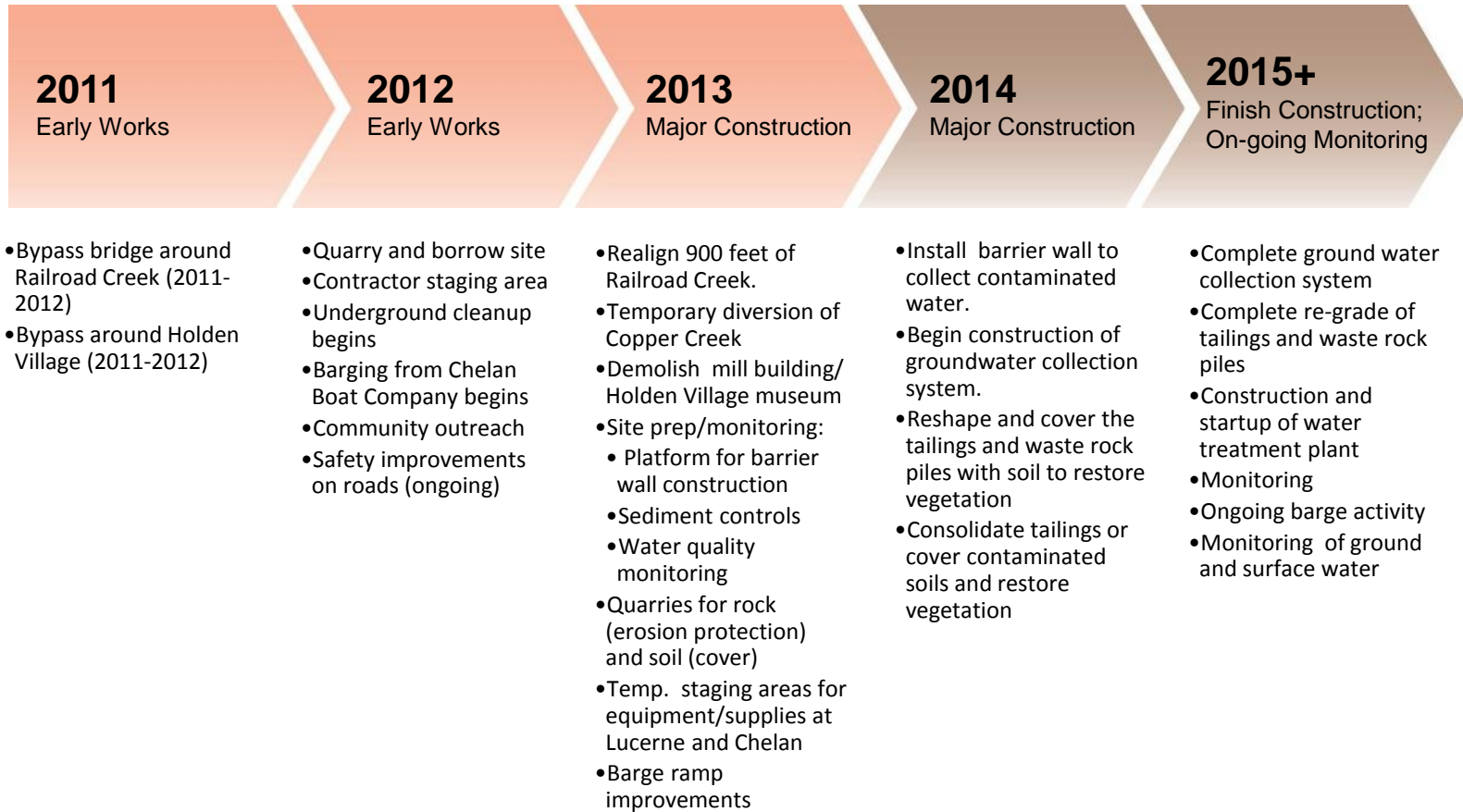


Re-grade tailings to prevent leaching into Railroad Creek



Iron staining in creek will eventually dissipate after cleanup

Timeline



Railroad Creek Alignment



Copper Creek Diversion



Mill Building Demolition



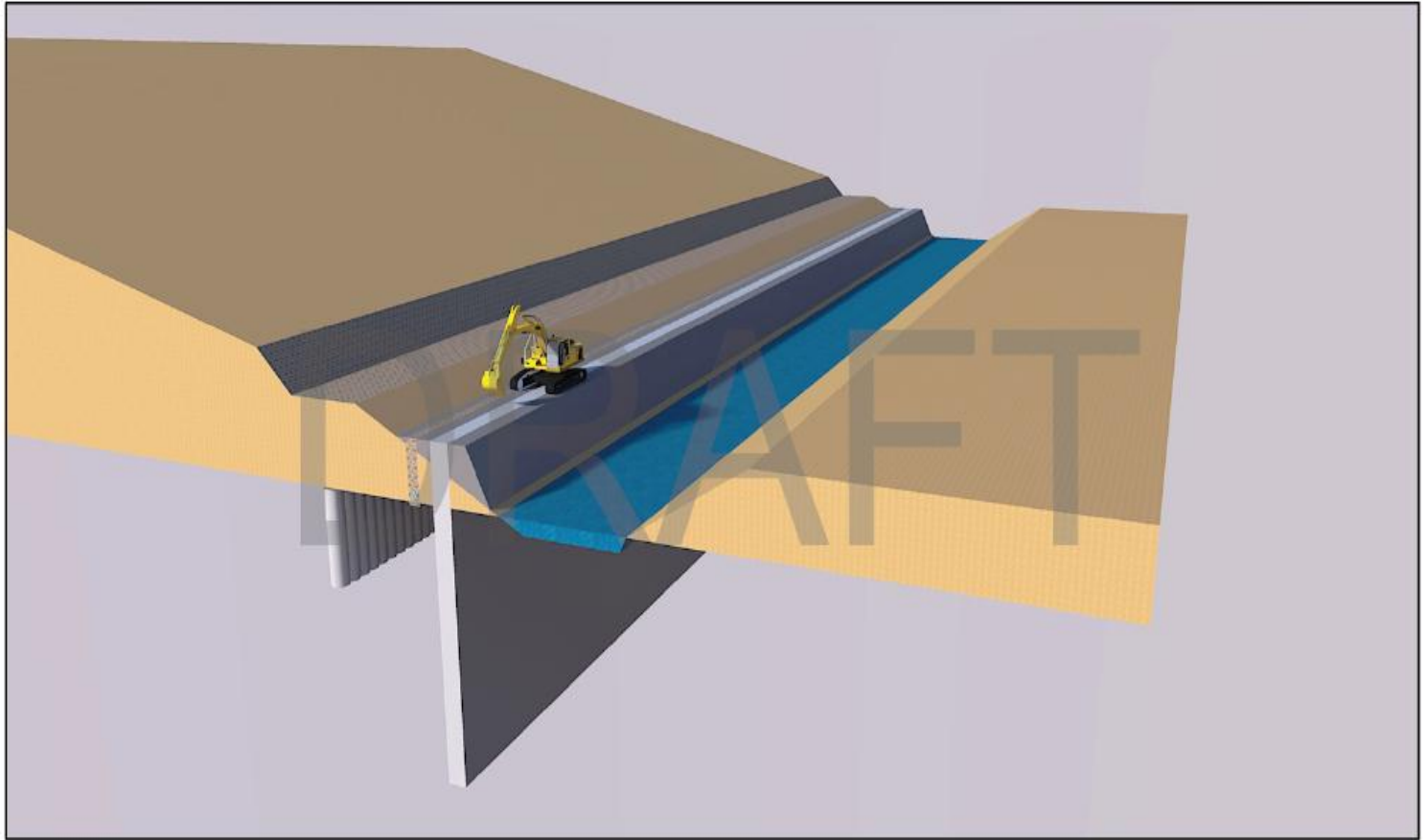
Initial Tailings Re-grading



Barrier Wall Platform



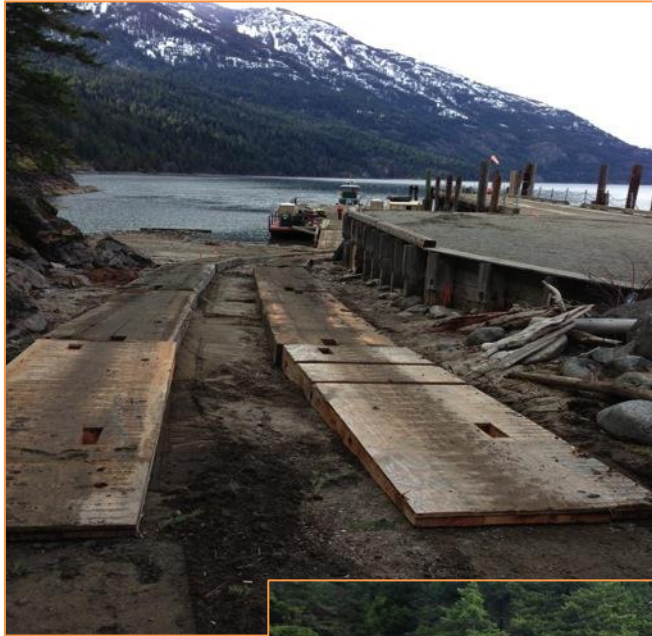
Barrier Walls to Improve Water Quality



Chelan Boat Company Parking Lot

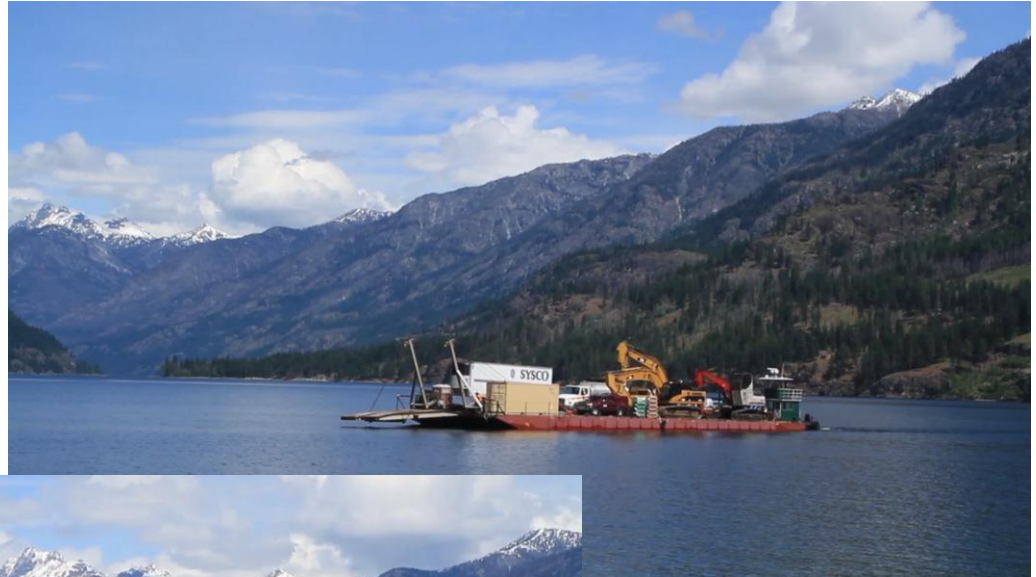


Lucerne Barge Ramp

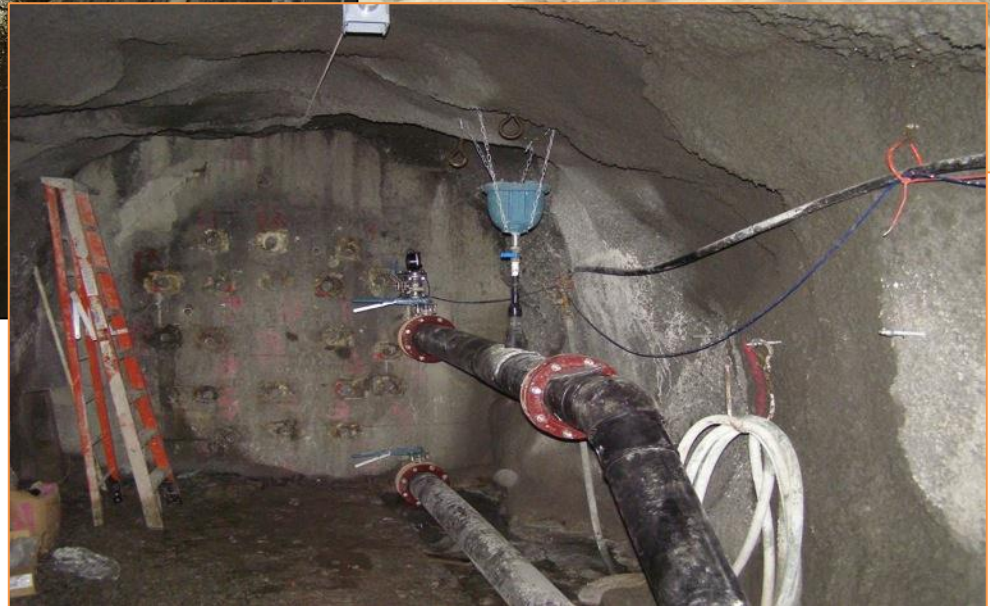
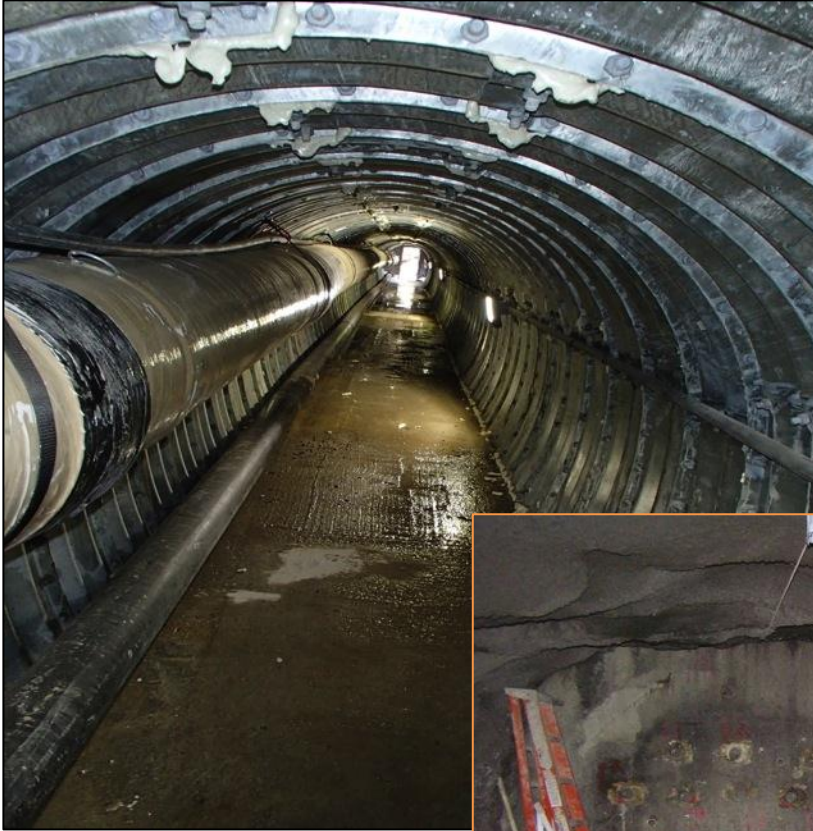


Barge Safety, Schedule & Cargo

- **Safety**
- **Schedule**
- **Cargo**



Underground Portal



Temporary Maintenance Bldg for Holden Village



Dining Hall and Catering Services



Economy and the Community

- 370 jobs over the life of the project; 60% from Central Washington.
- \$30+ million in local economic benefits
 - Wages
 - Tax payments
 - Direct payments
 - Camp support and leasing
 - Ferry services, storage area rental
 - Equipment rental
 - Subcontracted and professional services
 - Local lodging
 - Construction-related goods and services
- Additional 50% in value will be generated in the community through the multiplier effect



Community Partners



What's Ahead: 2014-2015+

- Complete barrier wall
- Complete ground water collection system
- Re-grade tailings and waste rock piles
- Complete all of Railroad Creek relocation
- Startup of water treatment plant
- Permitting/environmental studies/licensing for hydropower plant
- Monitoring
- Ongoing barge activity

Employment:
Contact Magnus Pacific

www.magnuspacific.com

Search “Employment”

Or contact Human Resources
rjeremiah@magnuspacific.com

916-233-1137

Thank You

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