

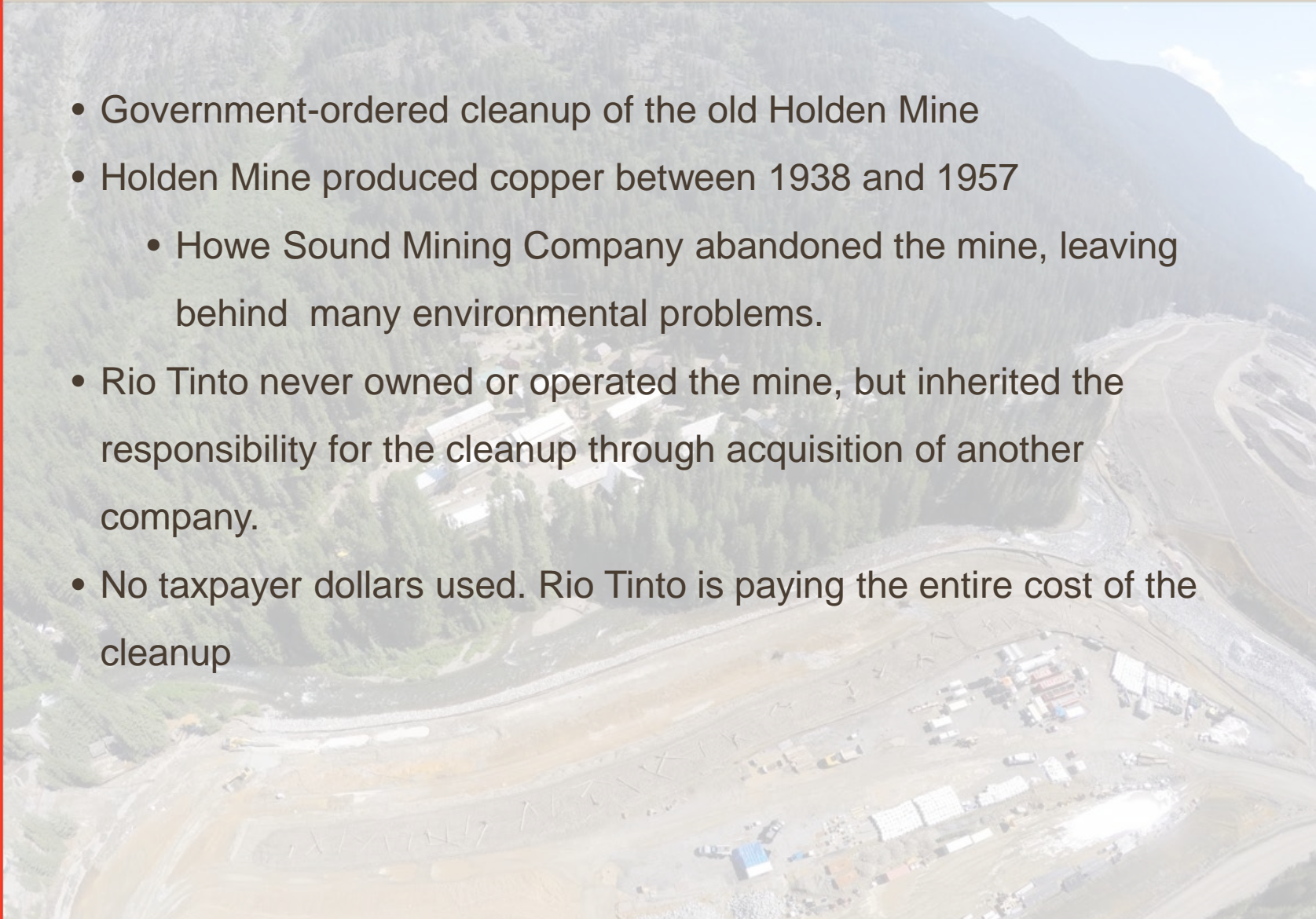
**RIO TINTO HOLDEN MINE  
CLEANUP PROJECT**

**APRIL 28 2016**

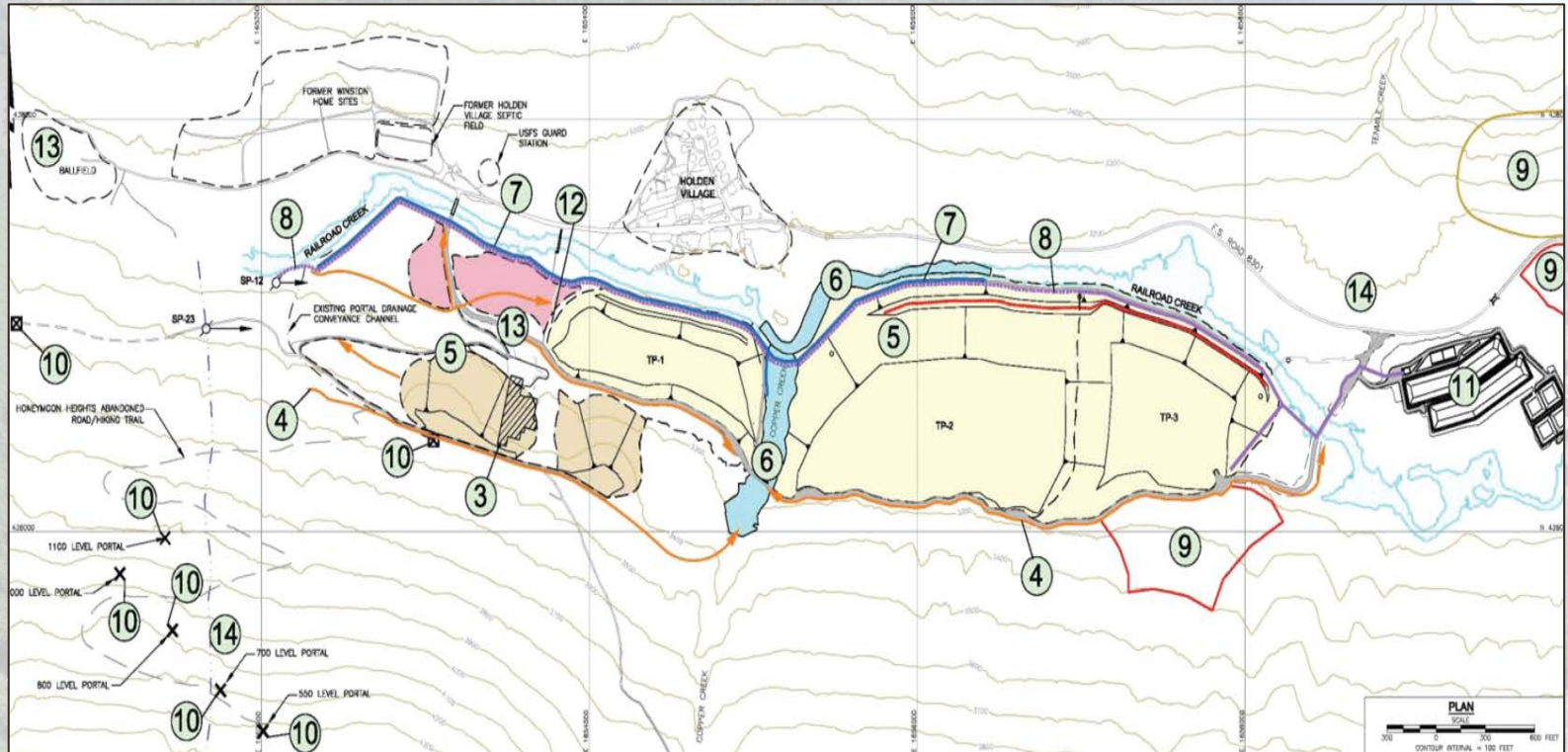
**[WWW.HOLDENMINECLEANUP.COM](http://WWW.HOLDENMINECLEANUP.COM)**

## Why is Rio Tinto in the Railroad Creek Valley?

- Government-ordered cleanup of the old Holden Mine
- Holden Mine produced copper between 1938 and 1957
  - Howe Sound Mining Company abandoned the mine, leaving behind many environmental problems.
- Rio Tinto never owned or operated the mine, but inherited the responsibility for the cleanup through acquisition of another company.
- No taxpayer dollars used. Rio Tinto is paying the entire cost of the cleanup



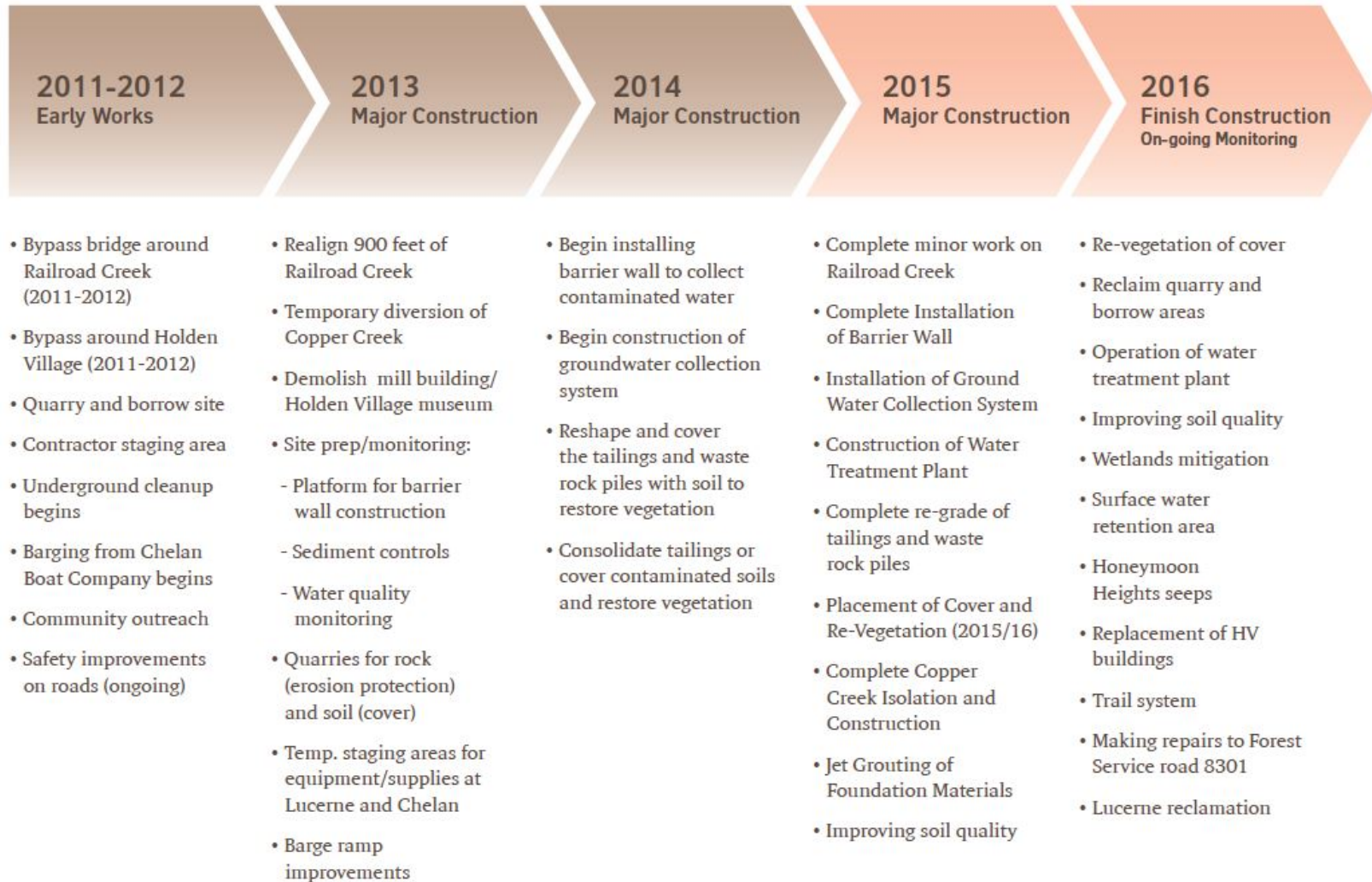
## Phase 1 Remediation Plan



## 2011- 2016: What We Have Accomplished

- Re-shaped and re-contoured 9 million tons of tailings and 250,000 tons of waste rock piles
- Sealed off mine entrance
- Built water collection system and underground barrier to prevent further contamination of creek
- Demolished and buried old mill building
- Re-aligned 900 feet of Railroad Creek
- Built new barge ramp at Lucerne
- Built new parking lot at Chelan Boat Company to allow staging area
- Built new bridge to bypass Holden Village
- Built and began operating water treatment plant

## Timeline



## Remediation Plan



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



*Demolish mill building*



*Regrade tailings and waste rock piles to prevent leaching into Railroad Creek*



*Iron staining in reek will eventually dissipate after cleanup*





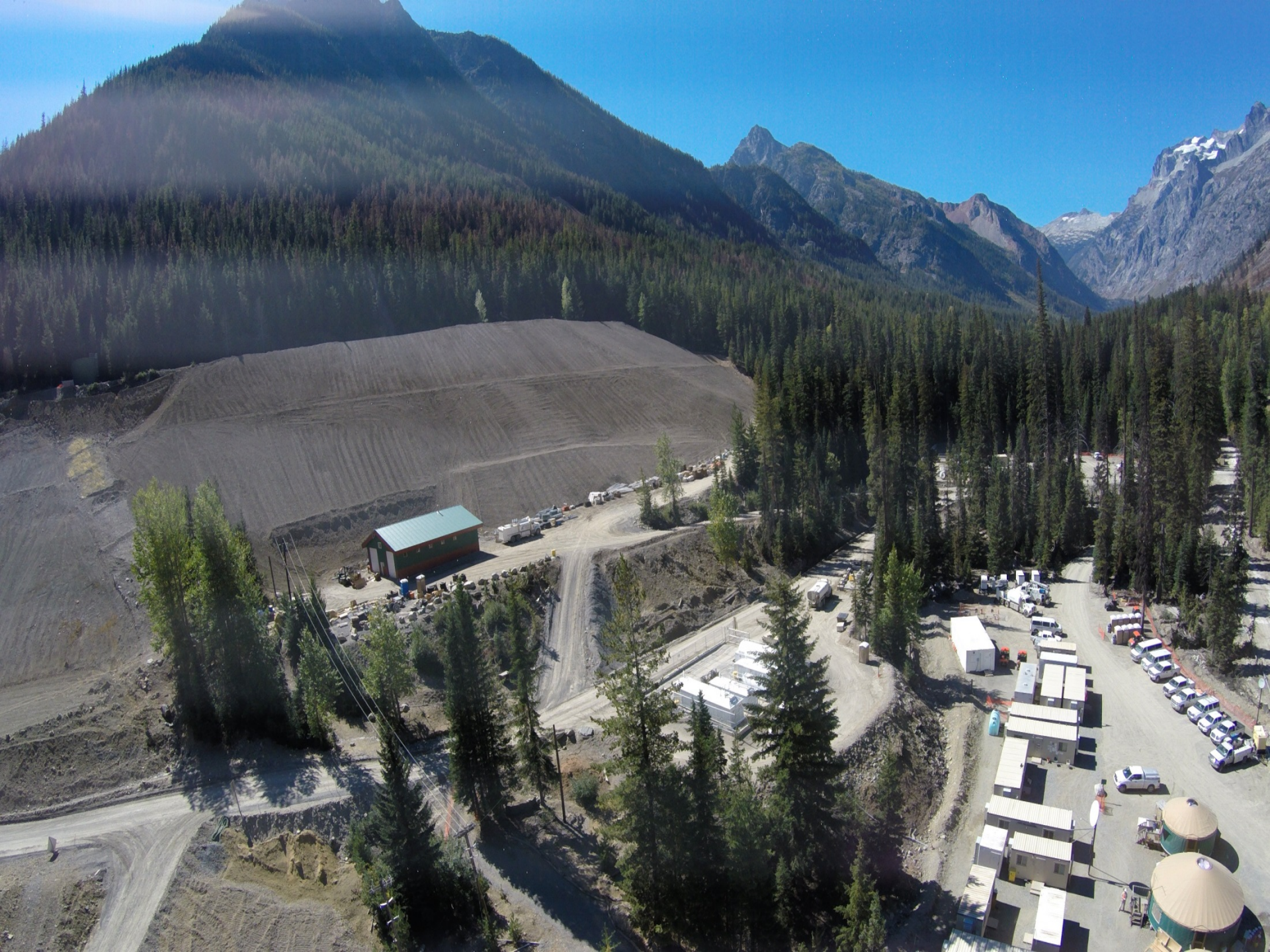
















07.08.2014

# Chelan Boat Company Parking Lot





# August 2015: Wolverine Fire



# Winter 2015- 2016: Construction of Water Treatment Plant

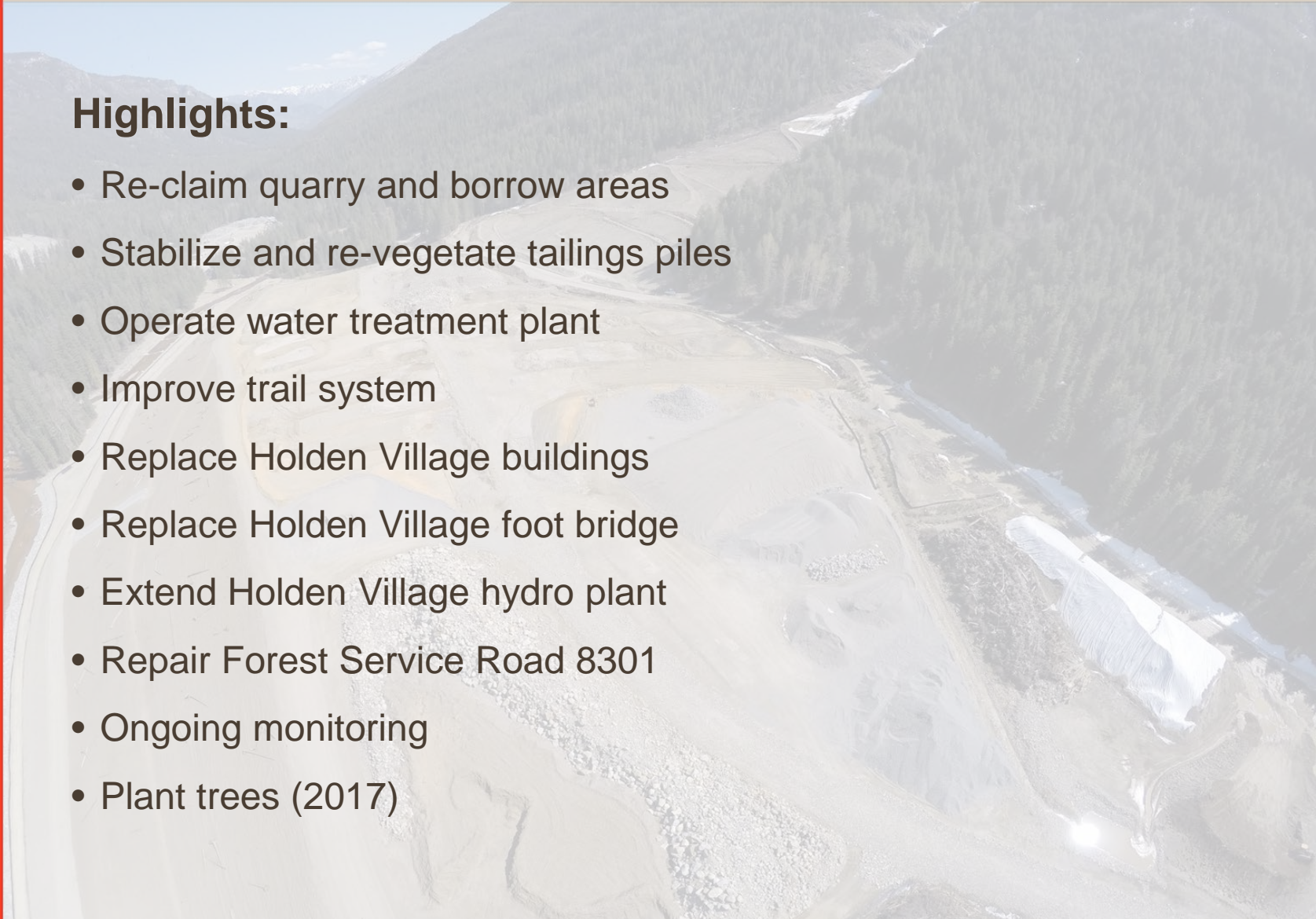




## 2016: Wrapping it Up

### Highlights:

- Re-claim quarry and borrow areas
- Stabilize and re-vegetate tailings piles
- Operate water treatment plant
- Improve trail system
- Replace Holden Village buildings
- Replace Holden Village foot bridge
- Extend Holden Village hydro plant
- Repair Forest Service Road 8301
- Ongoing monitoring
- Plant trees (2017)



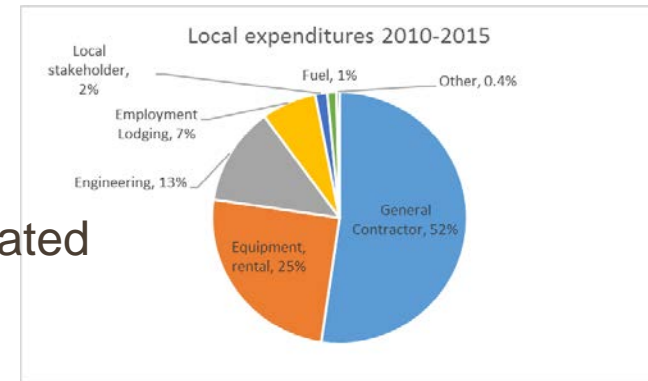
## What Are the Benefits?

- Railroad Creek water will meet standards for sensitive aquatic life.
- Ground and surface water at the site will be monitored continuously.
- Re-shaped tailings and waste rock piles will be much more likely to withstand a major earthquake.
- Tailings and waste rock piles will be covered with soil and re-vegetated, improving habitat and aesthetics.
- Community receives improved parking area and boat ramp at the Lake Chelan Boat Company.
- Improvements to Holden Village.

# Economic Impact: 2010 - 2015

## Highlights:

- \$153 million **Direct benefits** (wages to local employees, contractors, equipment providers + property, sales & use, employment taxes to local and state governments)
- \$38.7 million **Indirect benefits** (goods purchased from local industries)
- \$ 45.3 **Induced benefits** (revenue generated by individual salaries and expenditures within local communities)



**Total Economic benefit = \$237 million**

**Total regional jobs over the life of the project = 1,875**

## Community Partners: Chelan Visitor Center



### Holden Mine Cleanup Project

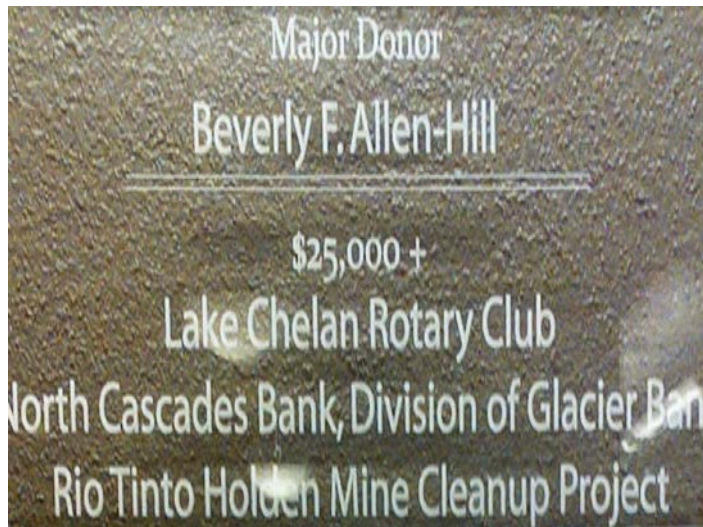
# RioTinto

Returning history to its natural place.

<h4>History</h4> <p>The Holden Mine was one of the largest operating copper mines in the Pacific Northwest from 1925 to 1982. Owned by the Holden Mining Company, the mine produced 600 million pounds of copper.</p>		<h4>Environment</h4> <p>The remediation addresses a number of waterborne concerns from the old Holden Mine. The cleanup is necessary to restore natural conditions at present lake levels and wetlands.</p>	
	<h4>Management</h4> <p>The Holden Mine Project is a government-owned cleanup. The lead is the newly formed Holden Project, a partnership of the state and the federal government. The lead is the state of Washington, the lead is the federal government.</p>		<h4>Partnership</h4> <p>Partnerships are critical to the cleanup project's success. The team works closely with the U.S. Forest Service, which is the lead agency. The Washington State Department of Ecology and the Environmental Issues and Events of the Western Pacific.</p>
<h4>Communities</h4> <p>The Holden Mine cleanup also shows the needed leadership from the regional community of Holden Village. Holden Village, the local community, is responsible for the site's long-term maintenance.</p>		<h4>The Future</h4> <p>The Holden Mine cleanup is the Holden Mine Cleanup Project for the long term. The cleanup of the Holden Mine is a long-term project. The cleanup of the Holden Mine is a long-term project.</p>	



## Community Partners: Chelan Public Library





# Community Partners: Lake Chelan Community Hospital Foundation



**THANK YOU, CHELAN!**