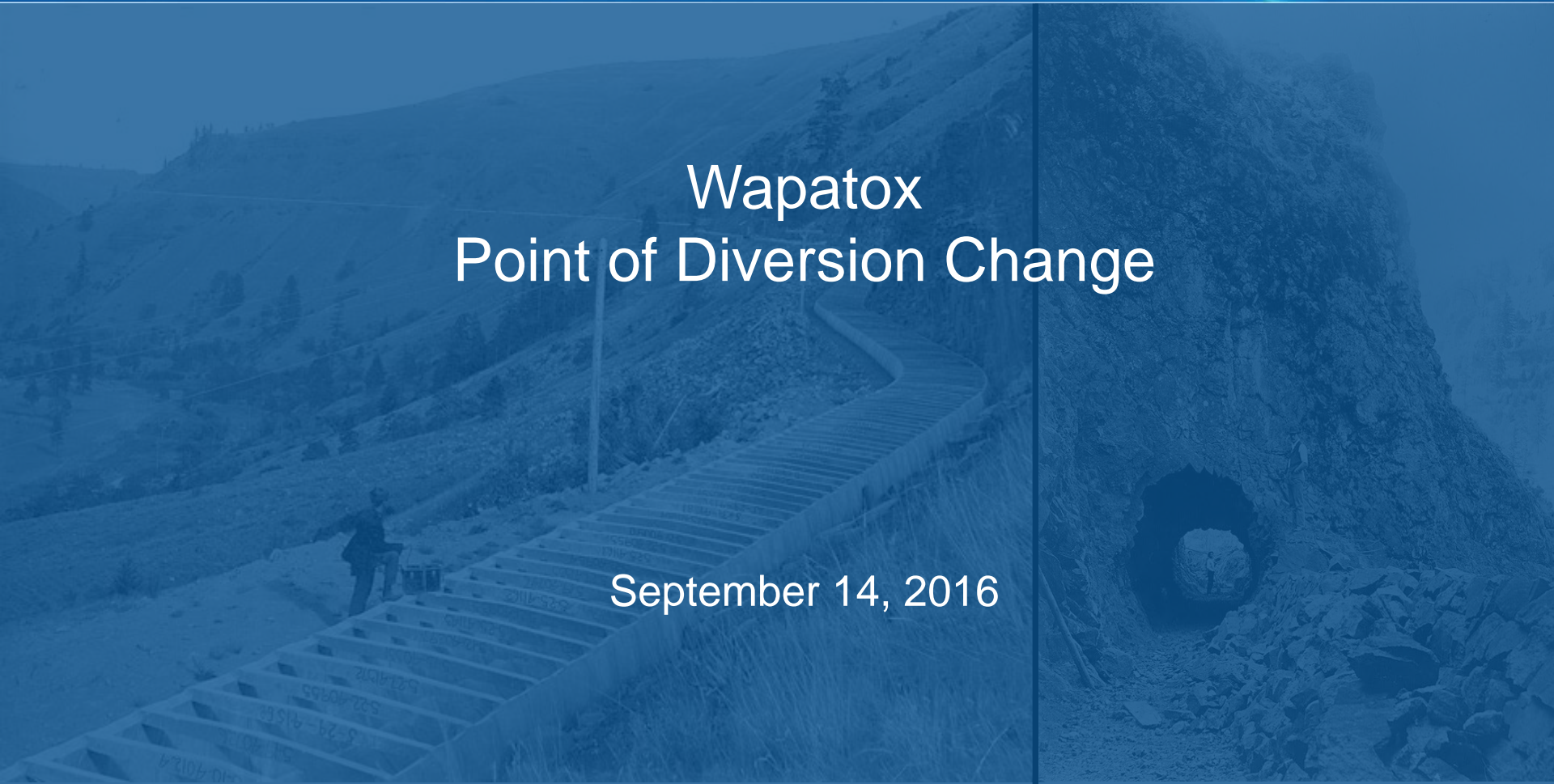


Yakima-Tieton Irrigation District

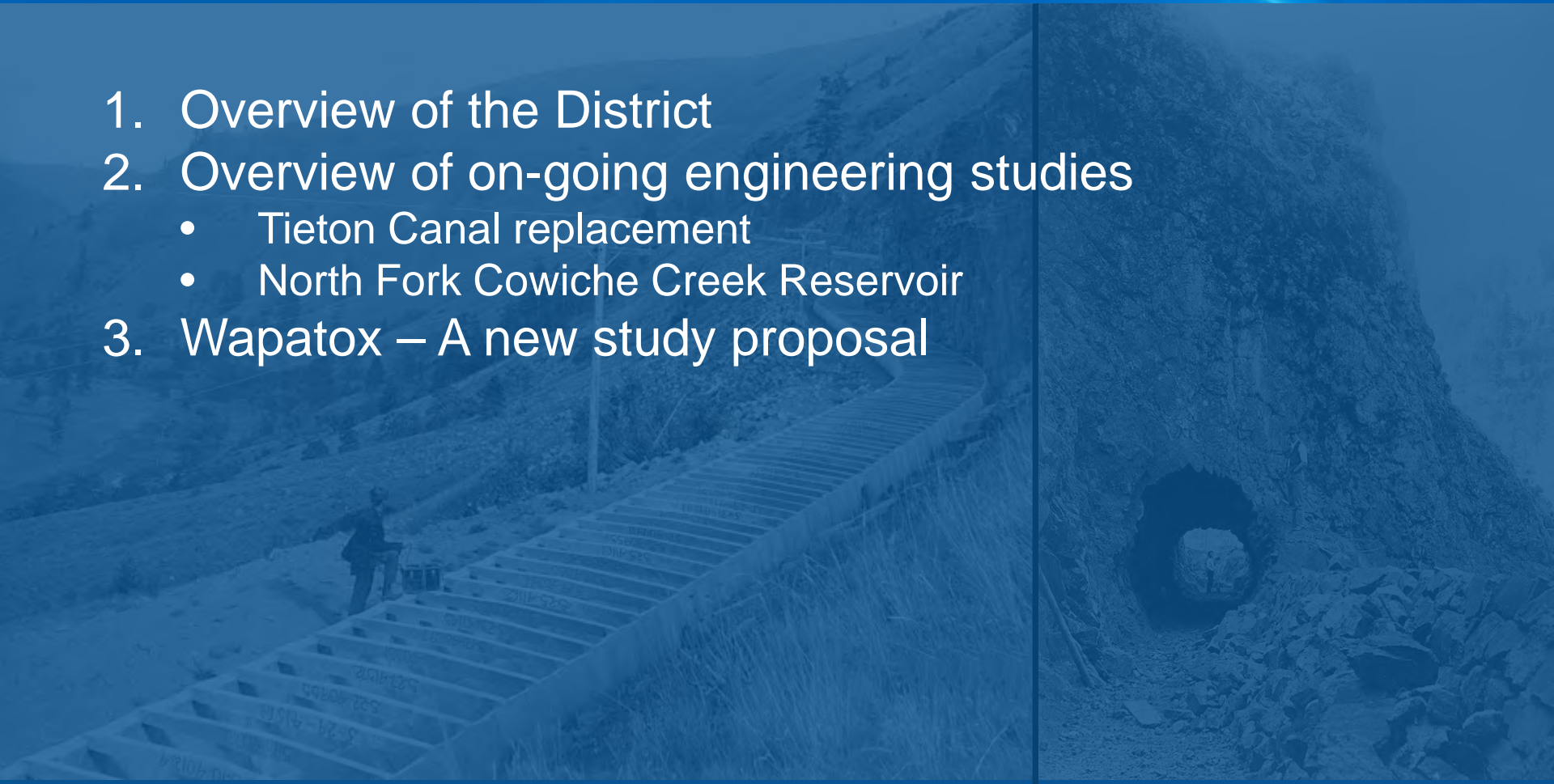
Wapatox Point of Diversion Change

September 14, 2016

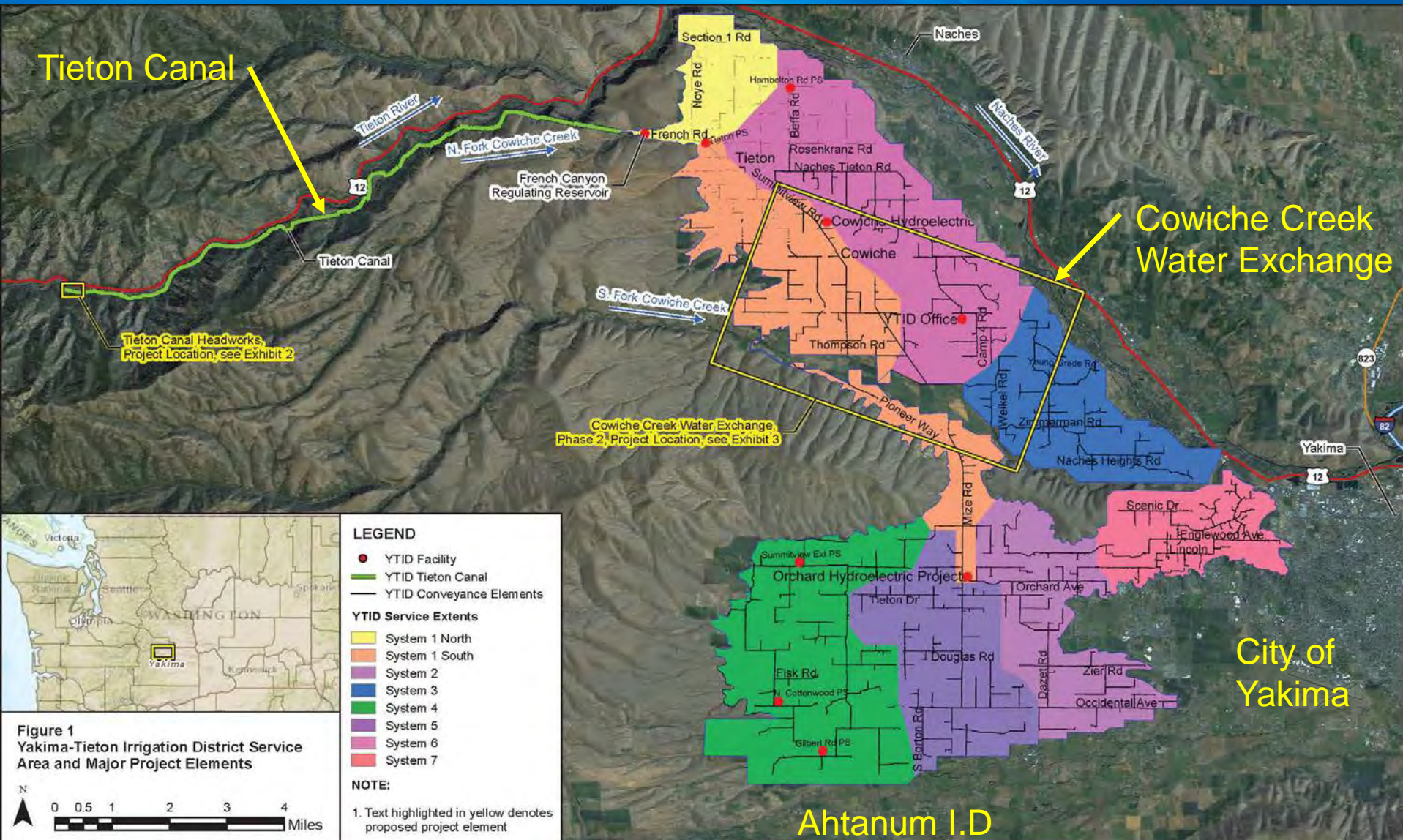


Presentation Topics

1. Overview of the District
2. Overview of on-going engineering studies
 - Tieton Canal replacement
 - North Fork Cowiche Creek Reservoir
3. Wapatox – A new study proposal

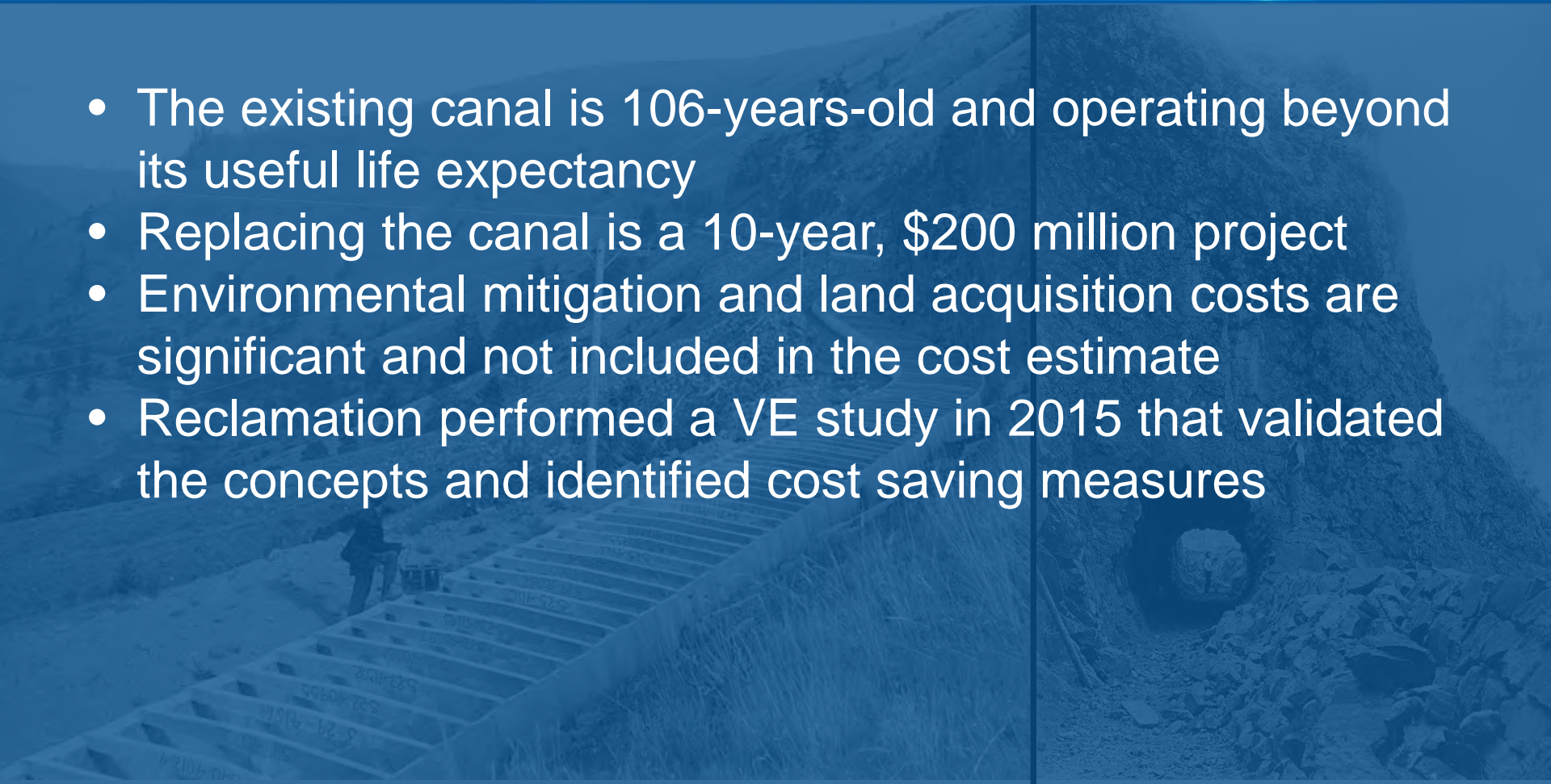


Overview of the District



Tieton Canal Replacement Project

- The existing canal is 106-years-old and operating beyond its useful life expectancy
- Replacing the canal is a 10-year, \$200 million project
- Environmental mitigation and land acquisition costs are significant and not included in the cost estimate
- Reclamation performed a VE study in 2015 that validated the concepts and identified cost saving measures

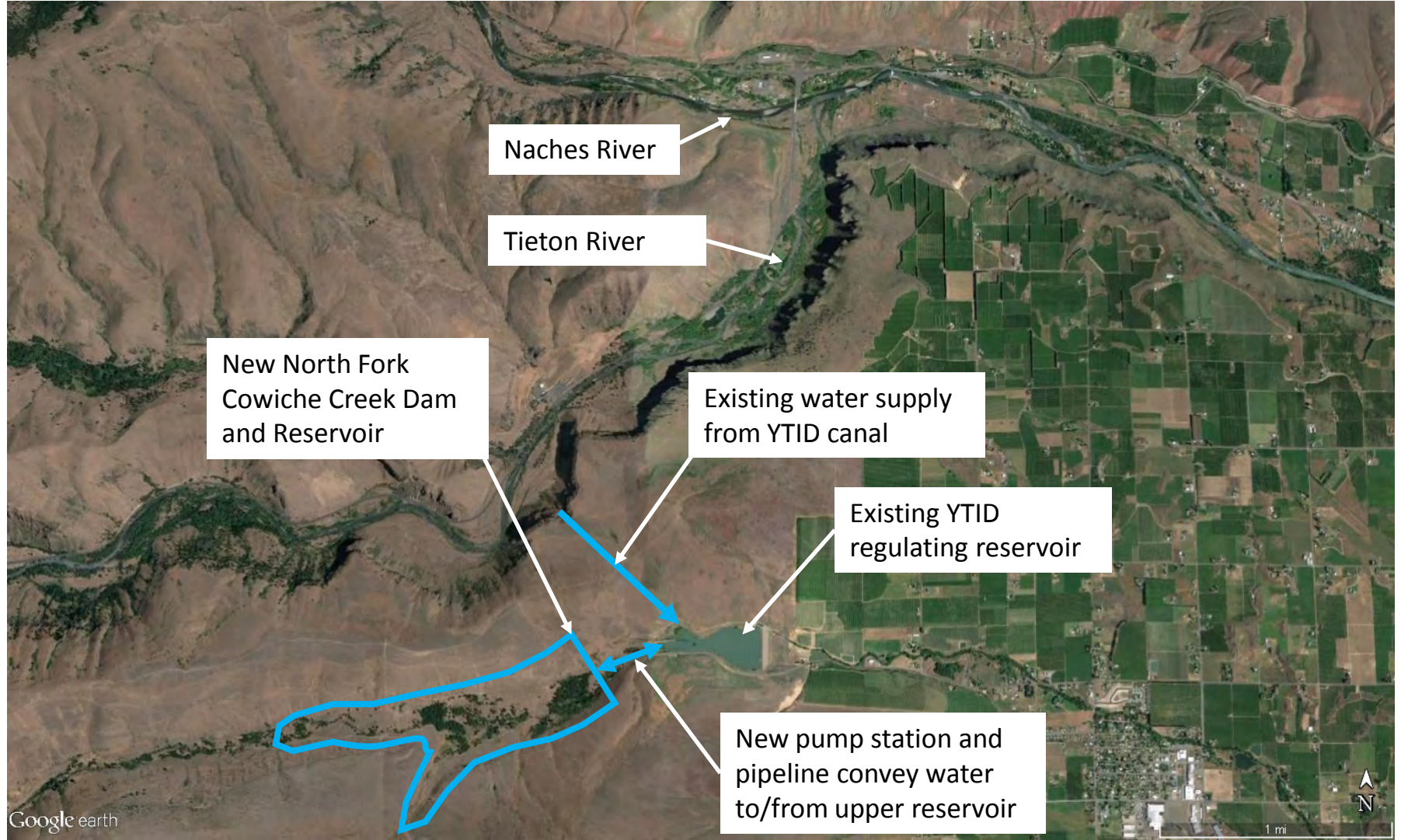


Tieton Canal Rehabilitation Project

- YTID is exploring new alternatives that could replace the Tieton Canal and expand benefits to other Yakima Basin users and stakeholders and water users.
- New concepts would create shared benefits consistent with goals and objectives of the Integrated Plan



North Fork Cowiche Creek Reservoir



North Fork Cowiche Creek Reservoir - Benefits

- The new reservoir increases TWSA by capturing flows from the Tieton River not stored at Rimrock Reservoir and excess to the system.
- Additional water could be made available to Cowiche Creek, Ahtanum Irrigation District, WIP, ASR or others
- Opportunities for water marketing or trades
- No known impacts to fish, endangered species, or the public
- Additional water storage provides insurance in case of canal failure

North Fork Cowiche Creek Reservoir

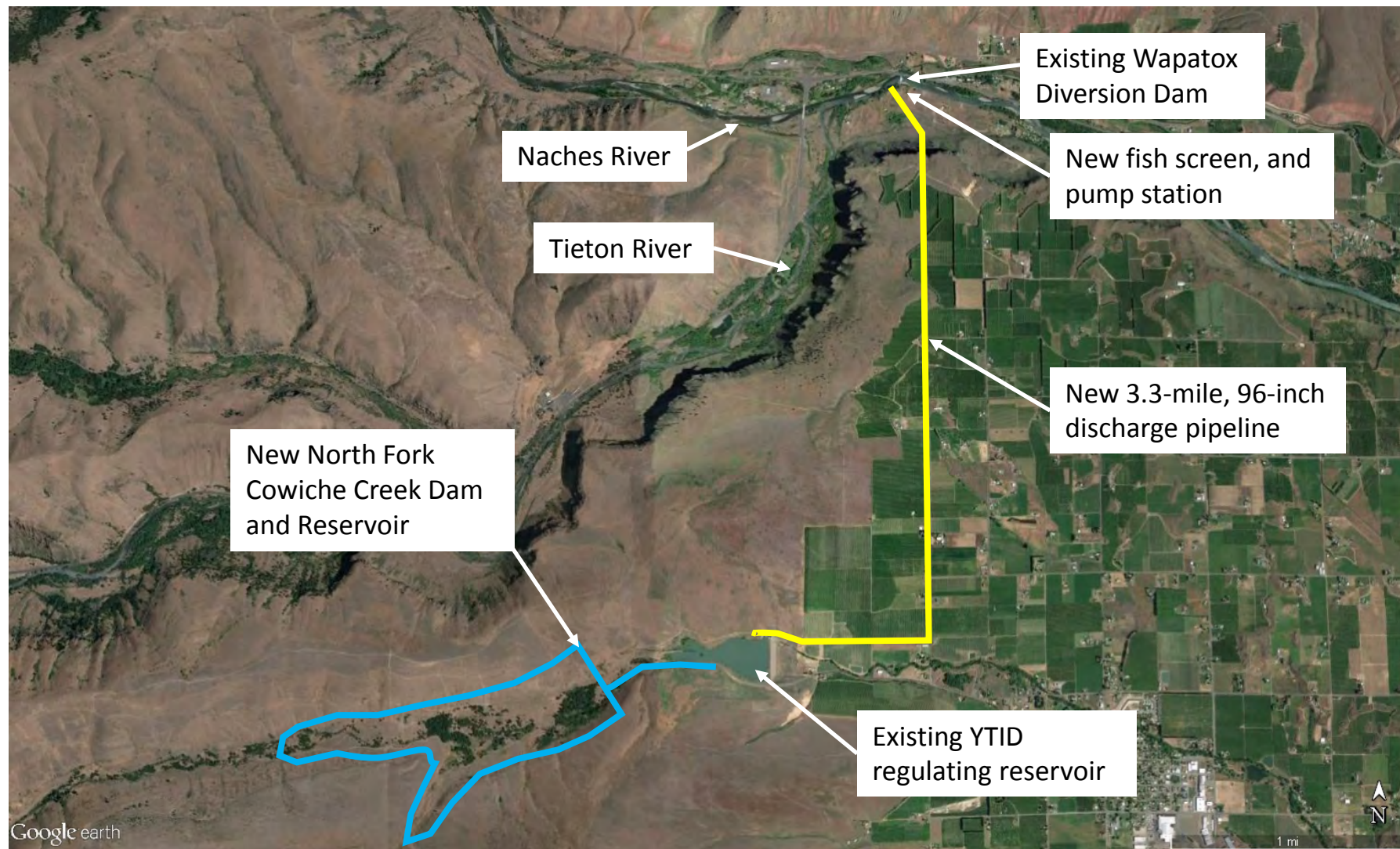
- Capacity of the new reservoir is 35,000 acre-feet (same size as Bumping Reservoir)
- Ecology awarded YTID a grant to study the reservoir in 2015
- The study is in progress and will be completed this fall



Wapatox Project

- The Wapatox Project complements and expands the North Fork Cowiche Creek Reservoir Project
- YTID would move its river diversion 15 miles downstream to existing Wapatox Diversion Dam
- New fish screens, pump station, and pipeline would convey water to the reservoir or possibly use existing infrastructure.
- Wapatox facilities would replace YTID's Tieton Canal

Wapatox Project



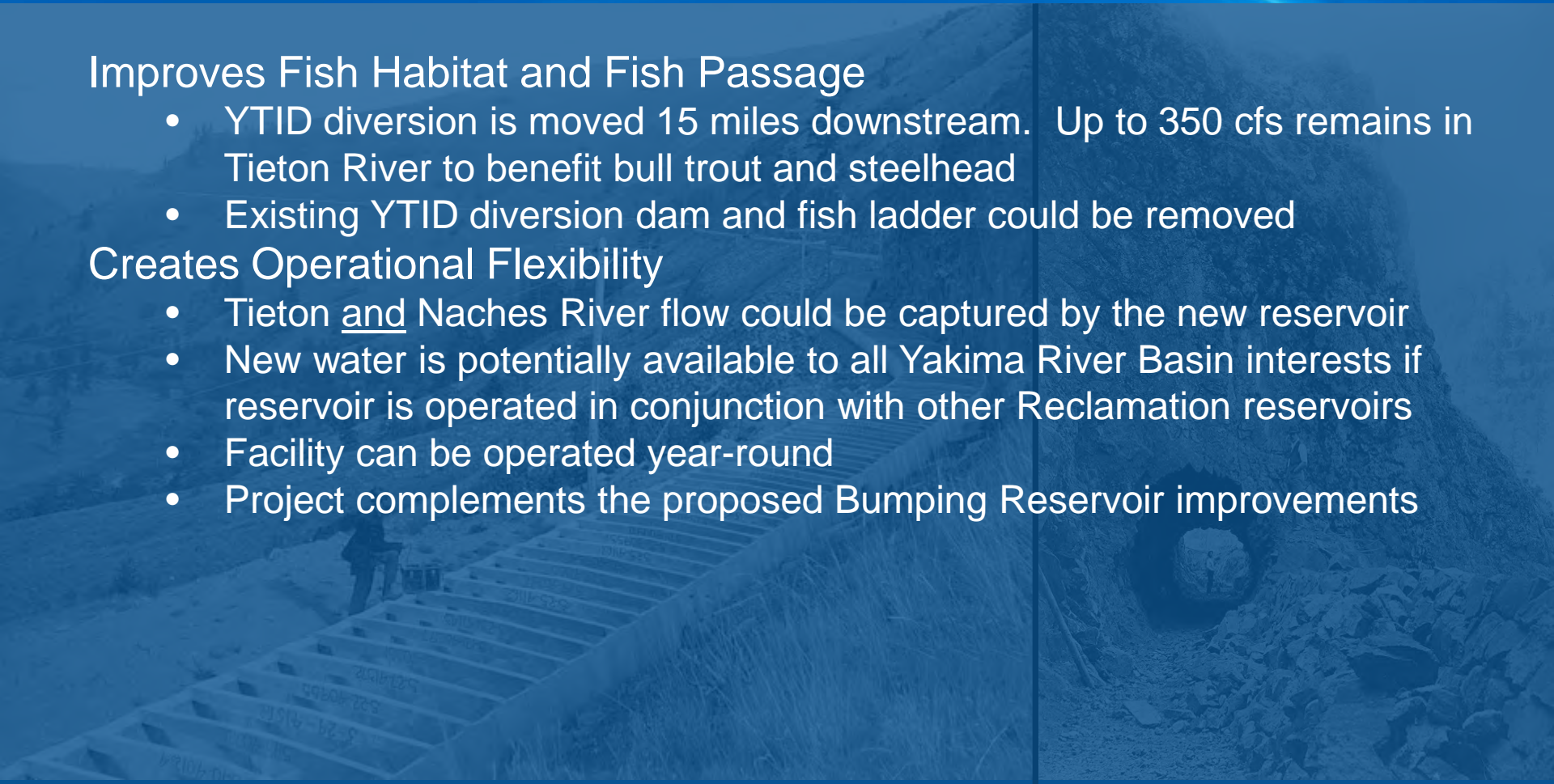
Wapatox Project – Additional Benefits

Improves Fish Habitat and Fish Passage

- YTID diversion is moved 15 miles downstream. Up to 350 cfs remains in Tieton River to benefit bull trout and steelhead
- Existing YTID diversion dam and fish ladder could be removed

Creates Operational Flexibility

- Tieton and Naches River flow could be captured by the new reservoir
- New water is potentially available to all Yakima River Basin interests if reservoir is operated in conjunction with other Reclamation reservoirs
- Facility can be operated year-round
- Project complements the proposed Bumping Reservoir improvements



Wapatox Project – Additional Benefits

Lower Cost

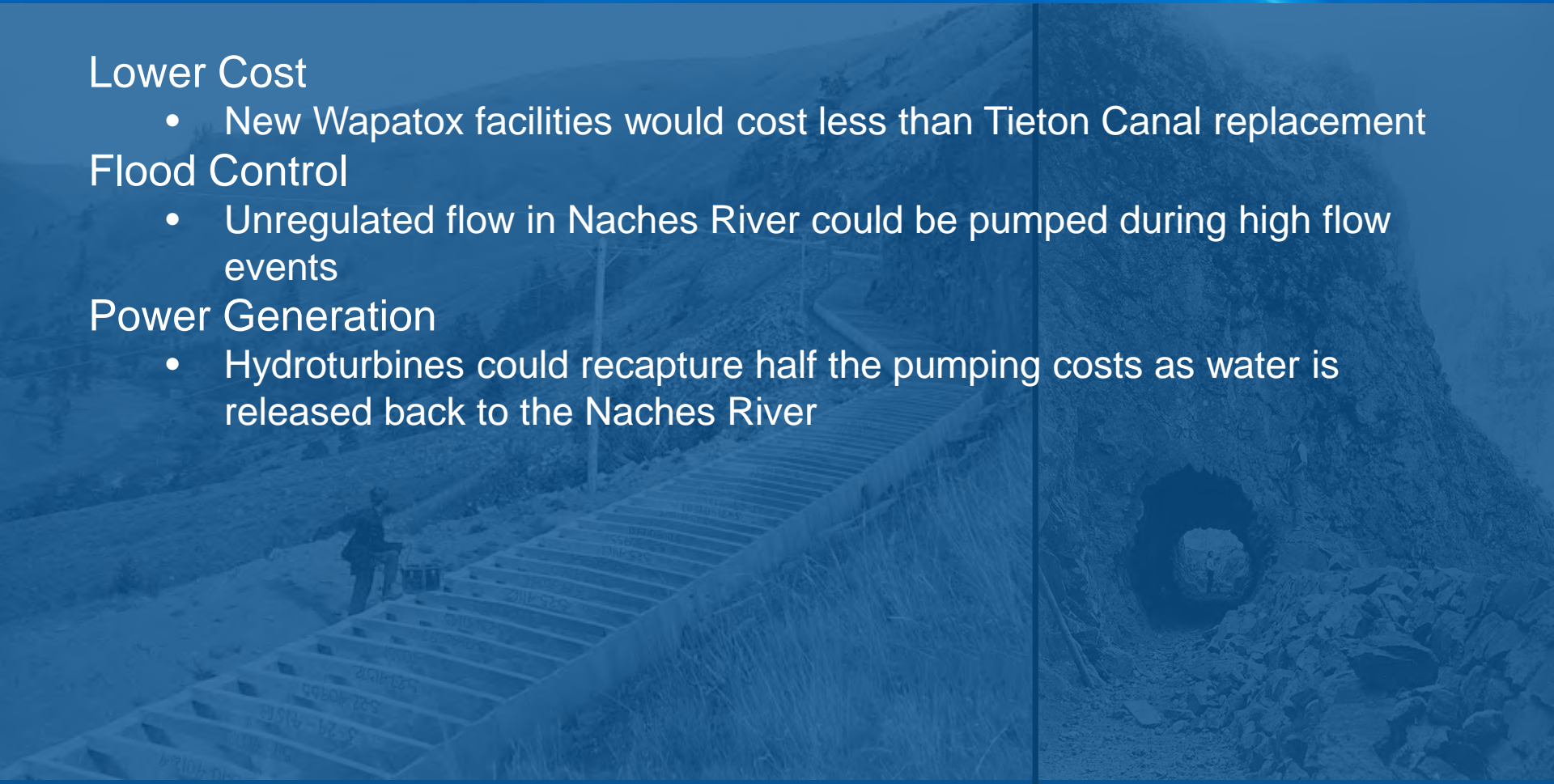
- New Wapatox facilities would cost less than Tieton Canal replacement

Flood Control

- Unregulated flow in Naches River could be pumped during high flow events

Power Generation

- Hydroturbines could recapture half the pumping costs as water is released back to the Naches River



Wapatox Project – Drawbacks

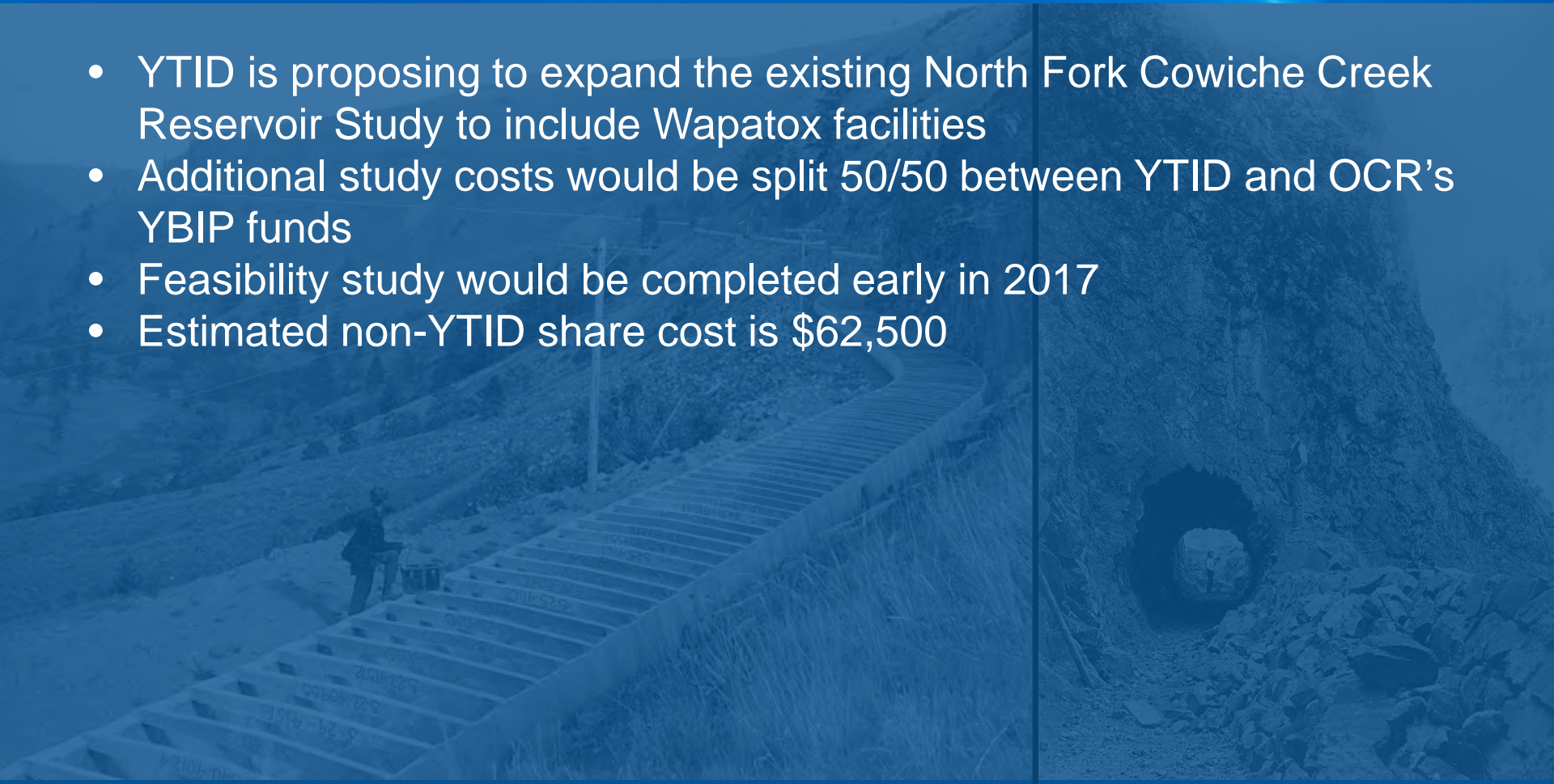
Operations and Maintenance Costs

- High pumping costs
- Higher maintenance and repair costs versus gravity canal



YBIP FUNDING FOR WAPATOX POINT OF DIVERSION STUDY

- YTID is proposing to expand the existing North Fork Cowiche Creek Reservoir Study to include Wapatox facilities
- Additional study costs would be split 50/50 between YTID and OCR's YBIP funds
- Feasibility study would be completed early in 2017
- Estimated non-YTID share cost is \$62,500



Questions ?? and Comments.

