

CAMP SWEYOLAKAN WATER FACILITY PLAN AND UPGRADE

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Existing System

The current system consists of an intake pump, a water treatment facility, a booster pump, and two reservoirs which define the pressure regions for the system.

Deficiencies

Water Treatment

- Faulty electrical components and piezometers
- Insufficient chlorine contact time for expected growth

Storage

- Lower reservoir needs replacing due to deterioration over the years
- Excessive dead storage in the lower reservoir

Distribution System

- Many water mains approaching 100+ years
- Some mains exposed at surface
- Exact pipe locations unknown

Pumping

- No immediate deficiencies

Recommended Alternatives

Water Treatment

- Install new package cartridge filter treatment plant in 5-10 years

Storage

- Move lower reservoir up hill

Distribution System

- Stage replacement of entire distribution system

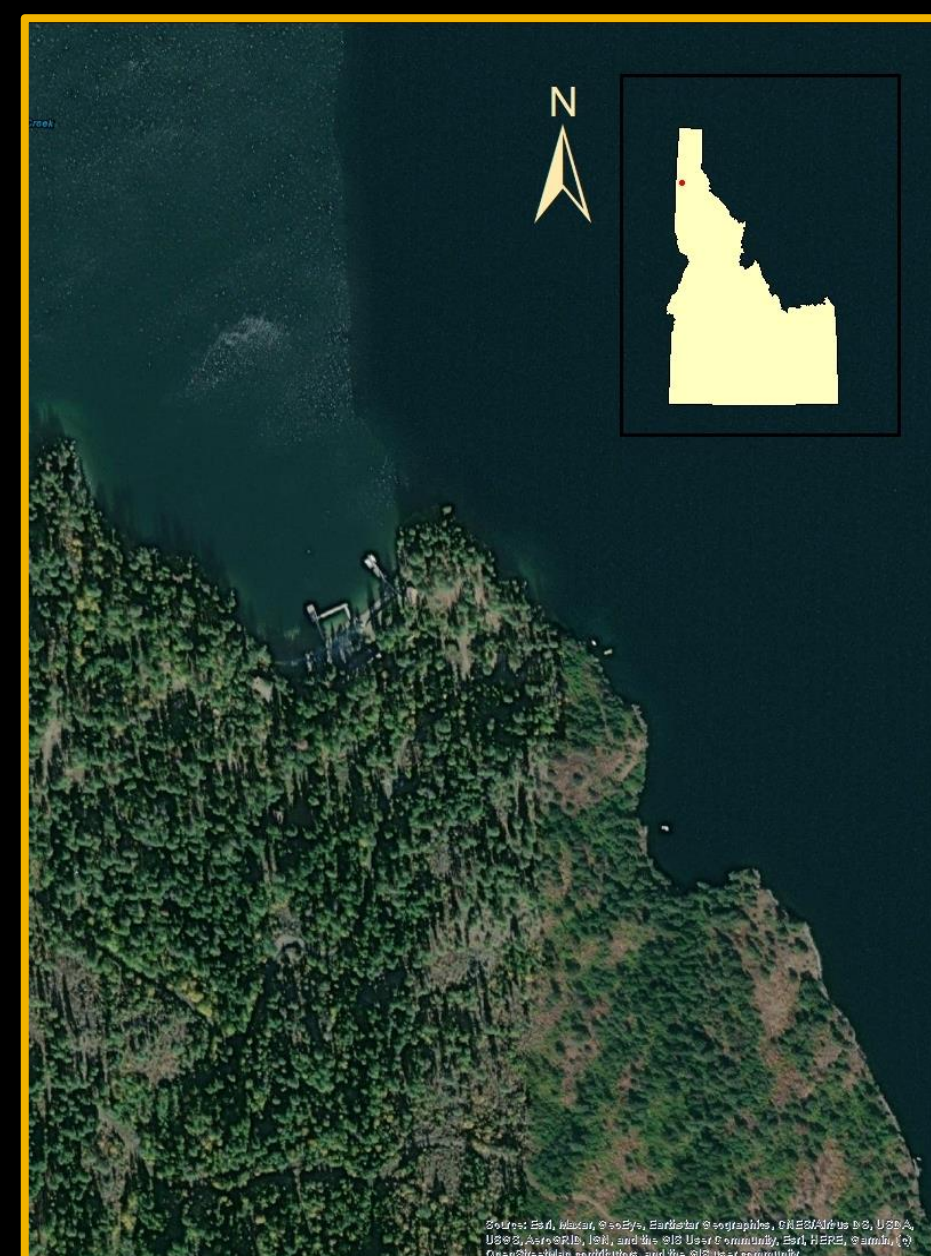
Pumping

- Replace booster station in 20+ years

Background

Camp Sweyolakan is a kid's summer camp located on the shore of Lake Coeur d'Alene. The camp was founded in 1922 and is currently operated by Camp Fire Inland. For their centennial anniversary Camp Sweyolakan intends on upgrading their water system.

The Idaho Department of Environmental Quality requires that a water facility plan be completed for the camp before any major upgrades may occur. This project includes the creation of the facility plan as well as 30% design on one of the recommended upgrades.

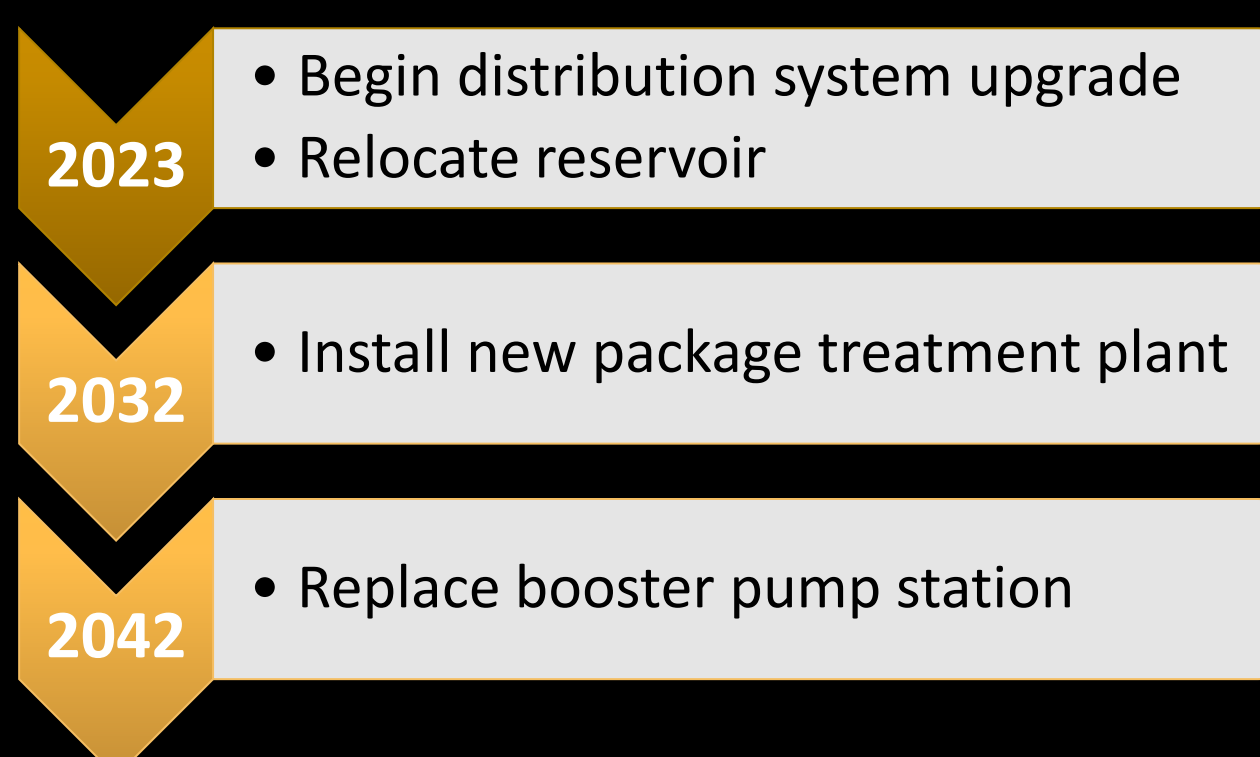


Project Location

Element	Projected Cost
Pumping	
Booster Package	\$99,597
Controls/Electrical	\$199,193
Misc.	\$149,395
Water Storage	
Reservoir Structure	\$57,731
Misc	\$57,731
Water Treatment	
Package Treatment Plant	\$335,927
Water Distribution	
1.5" HDPE w/ fittings	\$51,711
Trenching and Backfill	\$48,584
Summary	\$999,870

Upgrade Cost Estimate

Upgrade Timeline



Upgrade Design

Design Objectives

- Relocate lower reservoir to create better pressure distribution in the lower system
- Connect new reservoir to existing distribution system
- Design system components such that the camp operating system can be extended into below freezing weather

