### CHELAN RIVER HABITAT CHANNEL SEDIMENT REMOVAL

October 3, 2016

Presentation for the Board of Commissioners Presented by Jeff Osborn and Tyler Sellers



#### Habitat Channel Soon After Completion 2009





# Key Project Elements

- Habitat Channel completed in 2009 as a requirement of the new Lake Chelan license
- License requirement to maintain channel throughout the life of the license
- Sediment Basin scheduled for regular maintenance in 2016
- High spill levels (9,000 cfs) in 2016 deposited gravel
- Conducted gravel removal near log structure and tailrace in addition to sediment basin cleanout
- Potential for Chinook salmon and steelhead spawning on gravel deposits
- Potential for redd (nest) dewatering after spawning flows concluded



#### **Habitat Channel Maintenance 2016**





#### Habitat Channel July 2016

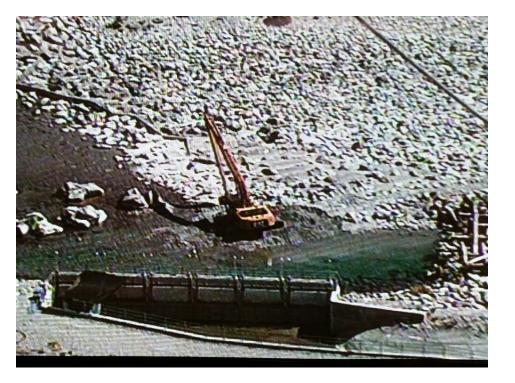




#### **Upper Habitat Channel Excavation**



#### Sediment Basin and Habitat Channel Upper Section Before and After Cleanout







#### **Tailrace Before and After Sediment Removal**





### Results

- Approximately 1, 600 cubic yards removed from Sediment Basin and upper Habitat Channel above log structure
- Approximately 3,200 cubic yard removed from tailrace
- Sediment stockpiled for future Habitat Channel "seeding"
- Sediment removal completed in only 4 days
- Project completed ~ \$25,000



## Summary

- The Habitat Channel is acting like a natural river
- Chinook salmon and steelhead spawning protected in Habitat Channel
- Gravel available to enhance Habitat Channel spawning habitat
- Compliance with terms and conditions of Lake Chelan License
- Maintaining the Habitat Channel, a valuable District asset
- Implementing District value of Environmental Stewardship

