

**Klickitat Subbasin Fish Passage Facility
Improvements to Support Hatchery
Reform Efforts**

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ABSTRACT: Over the past decade, the Yakima/Klickitat Fisheries Project (YKFP) has modernized outdated and ineffective Klickitat Subbasin fish passage facilities. Conversion of the 1960's-era Castile Falls Fishway from a pool-weir to a vertical-slot fishway has opened over 55 miles of pristine headwater habitat to salmon and steelhead. To monitor re-colonization into this habitat, a remote sensing station using both Passive Integrated Transponder (PIT)-detection and digital imagery, powered by an unmanned power station, was installed at the exit of the uppermost fishway. In addition, adult fish-collection capabilities have been incorporated into the fishway for bio-sampling and potential brood collection.

The Lyle Falls Fishway reconstruction project will convert a non-compliant, vertical non-compliant, vertical-slot fishway into a modern fish passage facility incorporating brood stock collection, PIT detection, and a pacific lamprey eelway. The updated design will now meet federal fish passage and handling criteria. Updates included a 350-ft. transportation channel extension, 110-cfs screened auxiliary water supply, 56,000-gallon reservoir, 38-ft. vertical-foot fish lift and mechanical fish-crowder. This new trap and collection system will ensure a water – to-water transfer for bio-sampling and brood collection.

In late summer 2010, a 165 ft.-long, single-span, steel-box girder bridge was installed at the Klickitat Hatchery to replace an aging and inferior foot bridge. This new bridge allows for future hatchery expansion and secure emergency access/egress. The interior of the bridge will provide reliable conveyance of the primary spring-water supply to the hatchery, as well as juvenile fish distribution lines from hatchery raceways to their final acclimation ponds.

Presentation will highlight recent facility improvements and identify their function in reforming current hatchery practices. A status update of BPA's Environmental Impact Statement for Klickitat Hatchery Production and conceptual designs will also be presented.