RECLAMATION
Managing Water in the West

DEPARTMENT OF ECOLOGY
State of Washington

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Kachess Drought Relief Pumping Plant (Kachess Reservoir Inactive Storage) and Keechelus-to-Kachess Conveyance

Yakima River Basin Integrated Water Resource Management Plan (Integrated Plan)

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What is proposed for the Kachess Drought Relief Pumping Plant?

The current reservoir outlet for Kachess Reservoir does not provide access to water below elevation 2,192 feet; therefore, water stored in the reservoir below that elevation is currently designated as unusable, or "inactive," storage. Reclamation and Ecology propose to install a pumping plant at the Kachess Reservoir to allow additional water to be withdrawn from the reservoir.

The purpose of the Kachess Drought Relief Pumping Plant (KDRPP) (Kachess Reservoir Inactive Storage) is to:

- Provide additional water supply for municipal, domestic, and agricultural uses during drought years.

These goals would be accomplished by:

- Constructing a pumping plant, which would allow the reservoir to be drawn down approximately 80 feet lower than the current outlet, and
- Allowing up to 200,000 acre-feet of water to be withdrawn from the reservoir during drought years.

What is proposed for the Keechelus-to-Kachess Conveyance?

Reclamation and Ecology propose the Keechelus-to-Kachess Conveyance (KKC) to convey water from the Keechelus Reservoir to Kachess Reservoir in order to:

- Reduce flows in the upper Yakima River to improve ecological conditions for fish,
- Enable the storage of more runoff from the Keechelus Reservoir drainage to provide additional water supply for municipal and domestic uses, agriculture, and
- Potentially augment flows to refill Kachess Reservoir.

http://www.usbr.gov/pn/programs/eis/kdrpp/index.html
http://www.usbr.gov/pn/programs/eis/kkc/index.html
http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html

These goals would be accomplished by constructing a tunnel that would convey an average of 400 cubic feet per second (cfs) (maximum 500 cfs) from the Keechelus Reservoir to the Kachess Reservoir.

How do the KDRPP and KKC relate to the Integrated Plan?

The KDRPP is included in the Surface Water Storage element of the Integrated Plan and the KKC is included in the Structural and Operational Changes element of the Integrated Plan. The project-level environmental impact statement (EIS) for KDRPP and KKC will tier off the March 2012, *Yakima River Basin Integrated Water Resource Management Plan Final Programmatic EIS*.

What alternatives are being considered for the KDRPP and KKC EIS?

Only one action alternative is being considered for the KDRPP—a pumping plant at Kachess Reservoir to withdraw the additional water. The alternative includes the following components:

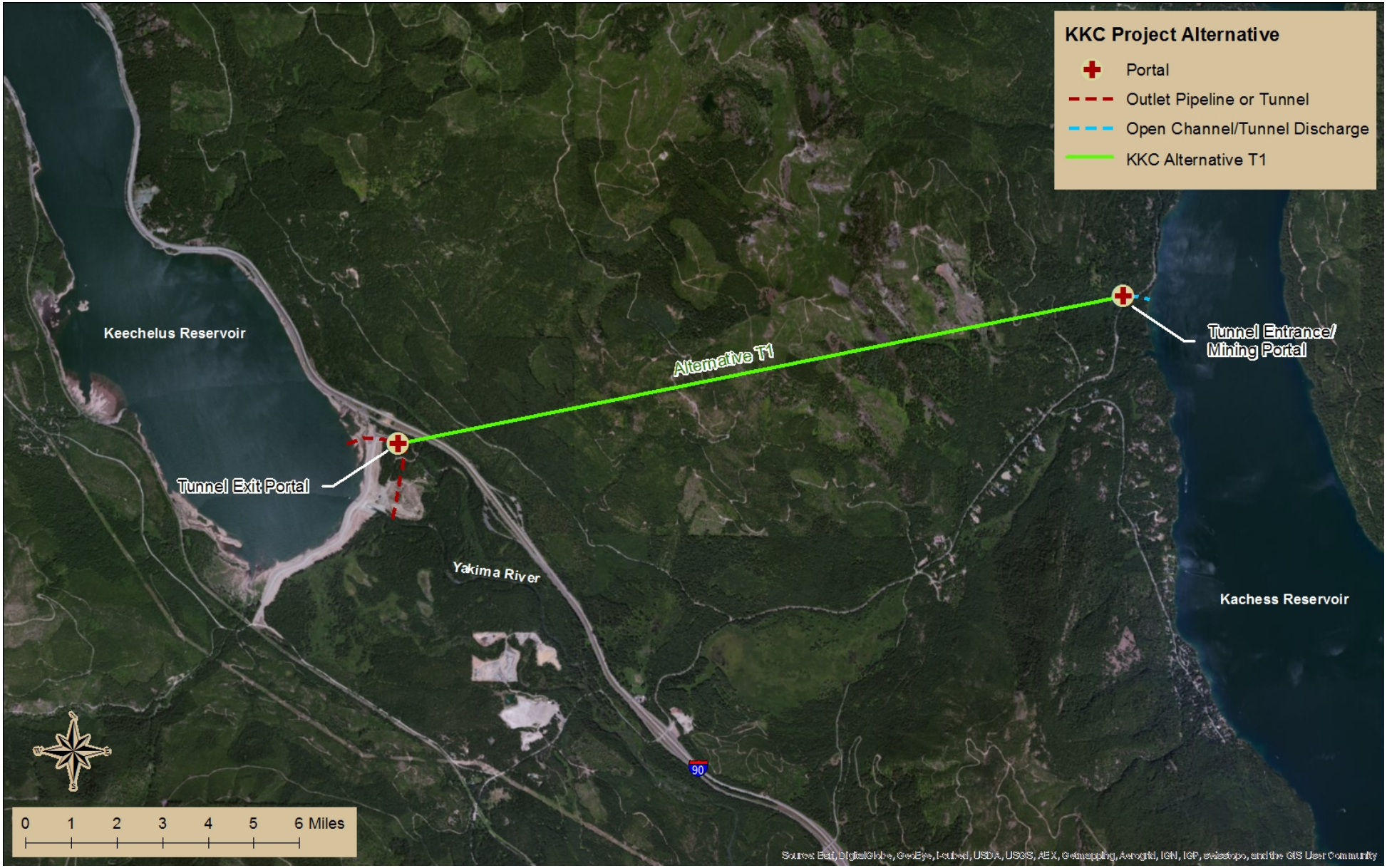
- Intake tunnel from the reservoir to a pump station;
- Pump Station (1,000 cubic feet per second [cfs]) located on the downstream side of the Kachess Reservoir Dam;
- Pipeline (12-foot-diameter) conveying flow from the pump station to a discharge structure;
- Discharge structure (1,000 cfs) to the Kachess River, located just downstream of the existing Kachess outlet channel; and
- Access roads to the pump station and discharge structure.

One action alternative is being considered for KKC for conveying water between the two drainages—Alternative T1. Alternative T1 was designed to cross the shortest distance between Keechelus Reservoir and Kachess Reservoir. The gravity tunnel would be approximately 19,700 feet (3.7 miles) long and extend from the existing outlet or from a new outlet of Keechelus Reservoir near the north end of the dam, to an exit portal near the west shore of Kachess Reservoir.

An alternative combining both the KDRPP and KKC will also be evaluated.

In addition, the No Action Alternative is evaluated to form the baseline for evaluating the potential impacts of all the action alternatives.

Kachess Drought Relief Pumping Plant Alternative



Keechelus-to-Kachess Conveyance Alternative T1