



BUILDING A FUTURE FOR WATER, WILDLIFE AND WORKING LANDS

YAKIMA RIVER BASIN INTEGRATED WATER RESOURCE MANAGEMENT PLAN

KDRPP & Yakima Basin Water Supply

About Kachess Reservoir

- Kachess Reservoir was created in 1912 by constructing a 115 foot high earthfill dam at the end of a natural glacial lake, flooding a larger area and connecting Big and Little Kachess lakes.
- Kachess is one of the U.S. Bureau of Reclamation (reclamation) reservoirs, and holds 825,000 acre-feet of water. The top 239,000 acre-feet are used annually to irrigate the Yakima Projects.
- The remaining 586,000 acre-feet is an “inactive pool,” which lies below the outlet of the dam. This 300+ foot deep inactive pool cannot be released for irrigation purposes through existing infrastructure.
- Pumping water from the inactive pool during severe droughts is the first water supply project of YBIP.



Kachess Drought Relief Pumping Project

The Kachess Drought Relief Pumping Plant (KDRPP) is a proposed floating station that would pump inactive pool water to reduce impacts of severe drought on Reclamation water districts with junior water rights.

How much water will KDRPP use when operational?

KDRPP is designed to tap up to 200,000 acre-feet and would be used only in a severe drought – it would not be used in ordinary or moderate drought years. If there are a series of consecutive dry years KDRPP would not be able to supply all of that 200,000 acre-feet.

- Using historic climate conditions, modeling projects an average increase of 15% in water supply during severe drought years – an average of 158,000 acre-feet for the 17 driest years of the 90 years modeled.
- Using an adverse climate change scenario, modeling projects an average increase of 9.3% in water supply during severe drought years – an average of an additional 99,000 acre-feet for the 43 driest years of the 90 years modeled.

KDRPP is part of solving Yakima’s water problems, along with additional storage, conservation, markets, groundwater, and other YBIP elements.

Yakima Basin irrigation districts have committed to paying for all of the construction, financing, operation and maintenance costs of KDRPP.

Will Kachess refill if the drought pool is used?

If the full 200,000 acre-feet is used from Kachess, the reservoir level is lowered by 80 feet. Even at that lowest point, the lake is 4 square miles in area, retains 386,000 acre-feet of water, and is over 250 feet deep. Refill is expected to take no more than 5 years in current climate conditions. Reclamation’s decisions about operation, districts’ requests for water, and new storage will affect refill rates. Irrigation districts have an incentive to speed refill through operations because they have to pay for pumping costs when the reservoir is drawn down.

How will this project be paid for?

Yakima Basin irrigation districts, led by Roza Irrigation District, have committed to paying for all of the construction, financing, operation and maintenance costs of KDRPP. Reclamation would own the project.

The Bureau of Reclamation originally proposed a fixed pumping station which could have cost anywhere from \$300-\$600 million to build. The irrigation districts proposed a floating pumping plant option that is anticipated to cost less than \$200 million. Environmental review and engineering on this alternative is in process.



To construct KDRPP, the irrigation districts would pay about \$1000 in capital costs for every acre-foot of emergency drought relief water. This cost compares favorably to conservation projects and emergency drought well operations already paid for by the districts and their water users. Additionally, the capital cost of replanting perennial crops lost to drought is much more than the cost of constructing KDRPP.

Capital costs: replanting versus KDRPP Construction

KDRPP Water	+/- \$1000 per acre-foot (capital cost)
Blueberries, hops, tree fruit	\$25,000 per acre (capital cost)
Grapes	\$7,000 - \$15,000 per acre (capital cost)

When will KDRPP be used?

KDRPP will be used only if water districts receive less than 70% of their Reclamation supply and call for the water. They may choose not to use KDRPP, leaving it as insurance against back-to-back droughts, or if they find other sources such as conserved, marketed or transferred water.

Will recreational access be provided?

A new dock and extendable ramp will provide recreational access to the 4 square mile, 250-foot-deep reservoir during the lowest drawdown. Current operations reduce the area of the reservoir from 7 square miles to 5 square miles and leave campground and community boat ramps stranded. KDRPP mitigation will improve those conditions.

What about ESA?

KDRPP is undergoing environmental review, and will not proceed if it is found to jeopardize listed species like bull trout or spotted owls. Enhancing the abundance and resiliency of bull trout populations is part of YBIP.

Will the pump station be noticeable?

KDRPP is still under design and environmental review. Concerns about visual and noise impacts will be considered through that process.



Questions?

Please give us a call.

Michael Livingston, Washington
Department of Fish and Wildlife
509-457-9325
Michael.Livingston@dfw.wa.gov

Wendy McDermott, American Rivers
206-213-0330 ext 1
wmcdermott@americanrivers.org

Mike Leita, Yakima County Commissioner
509-574-1500
mike.leita@co.yakima.wa.us

Phil Rigdon, Yakama Nation
509-865-5121 ext 4655
phil_rigdon@yakama.com

Scott Revell, Roza Irrigation District
509-840-2721
srevell@roza.org

Tom Ring, Yakama Nation Water
Resources Program
509-865-5121 ext 6709
Tom_ring@yakama.com

Urban Eberhart, Yakima Basin Joint
Board & Kittitas Reclamation District
509-929-5859
urbaneberhart@gmail.com

Lisa Pelly, Trout Unlimited
509-888-0970
Lisa.Pelly@tu.org

Cory Wright, Kittitas County Commissioner
509-962-7508
cory.wright@co.kittitas.wa.us

Tom Tebb, Washington Department of Ecology
509-574-3989
Thomas.Tebb@ecy.wa.gov

