

SECURE Reservoir Operations Pilots

Mid-Pacific: *Klamath River Basin, Klamath Project*



Photo: Klamath River Basin, Courtesy of Reclamation.

Background: The Klamath Project provides water for irrigation, two national wildlife refuges, fish and wildlife benefits, power production, and tribal water supplies. The pilot, currently underway, identified the volume and timing of available water and power supply, changes to regional snowpack, and changes to groundwater recharge and discharge to project facilities as the main risks to reservoir operations under future climate scenarios.

Study Area: The Project provides water to approximately 200,000 acres of irrigable land and is located in south central Oregon and northern central California. Project facilities in Oregon consist of Upper Klamath Lake, Link River Dam, Gerber Dam and Reservoir, and the Lost River, Miller, Malone, and Anderson-Rose diversion dams. Project facilities in California consist of Clear Lake Dam and Reservoir and Tule Lake.

The Project's water supply comes from the Klamath and Lost River basins and is stored in Upper Klamath Lake and Clear Lake and Gerber reservoirs. The Project consists of a complex network of storage and conveyance features including reservoirs, lakes, dams, diversion dams, rivers, canals, and drains. The Project can be split into two distinct parts, the West and East sides. Water releases made from East Side dams are typically not used to provide water for the West Side and water diverted from Upper Klamath Lake for irrigation on the West Side is not used in the East Side due to facility limitations.

Pilot Objectives: The main objectives of the pilot study are aimed at improving forecasting methodologies for both Upper Klamath Lake inflows and irrigation demands. The study will utilize and improve the Klamath Basin Riverware model developed as part of the Klamath River Basin Study. The study will also draw upon ongoing work being done by the National Center for Atmospheric Research (NCAR) investigating improvements to streamflow prediction. Improved forecasting of irrigation demands will be achieved by incorporation of the West-wide ET forecasting (WwET4Cast) tool, in collaboration with the Desert Research Institute (DRI).

Coordination: The Klamath River Basin pilot will require collaboration between the Klamath Basin Area Office, the Mid-Pacific Regional Office, and the Denver Technical Service Center, as well as collaborators from NCAR and DRI.