



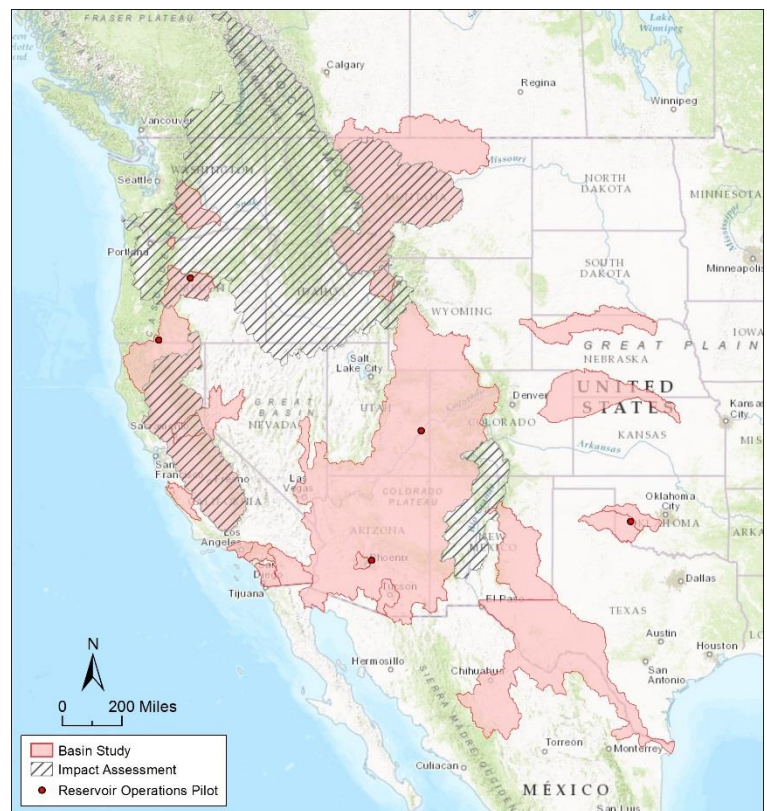
WaterSMART Basin Study

Reclamation's WaterSMART Basin Study Program supports collaborative planning to help Reclamation and its partners assess risks to water supplies from competing demands and to identify strategies to meet those demands. The three activities that comprise the WaterSMART Basin Study Program include: Basin Studies, Reservoir Operations Pilots, and Climate Change Activities.

Basin Studies

Basin Studies are critical to helping stakeholders address and plan for water supply and demand imbalances. Through these studies Reclamation provides technical assistance, tool development, and brings together competing interests within river basins to help identify collaborative solutions. The studies are focused on areas with willing State and local partners who provide 50 percent of the study costs. Although each Basin Study is tailored to the specific hydrology and issues in the basin and the needs of the partners, they all include four basic elements.

1. The development of projections of future water supply and demand, including the impacts of climate change, drought, population growth, and any other stressors present in the basin.
2. An analysis of how existing water and power infrastructure and operations will perform given current and future water supply and demand imbalances, including an analysis of the extent to which changes in the water supply may impact Reclamation operations and facilities.
3. The development of appropriate strategies to meet current and future water demands.
4. A trade-off analysis of the strategies identified.



Reclamation has funded 27 comprehensive Basin Studies, leveraging more than \$23 million in Federal funding with \$29 million in non-Federal funding to advance these collaborative studies. Of these 27 studies, nineteen have been completed to date.

Reservoir Operations Pilots

Reclamation conducts reservoir pilot projects to support the application of science, information, and tools in reservoir operations. The projects help to identify possible improvements to reservoir operations by incorporating improved scientific information, enhancing operational flexibility to maximize benefits from the existing system, and assessing changes to reservoir operations under extreme conditions. The pilot studies may address ecological considerations that impact water management, provide work for testing drought prediction tools and extreme event forecasting, as well as applying water management “dashboards” and tools to use for improving operational efficiencies.

Six pilot studies were selected 2021 and are currently underway, while the below list are the pilot studies that have been completed to date.

- **Great Plains:** Upper Washita, Fort Cobb and Foss Reservoirs, Oklahoma
- **Mid-Pacific:** Klamath River Basin, Klamath Project, Oregon and California
- **Pacific Northwest:** Ochoco Creek and Crooked River, Oregon
- **Upper Colorado:** Upper Colorado River Drought Contingency Plan, Operations Assessment Methodology, Upper Colorado River Basin
- **Lower Colorado:** Salt River Project, Salt and Verde Rivers, Arizona



Horseshoe Dam north of Phoenix, Arizona

Climate Change Activities

Reclamation conducts baseline assessments to develop guidance and tools needed to conduct water supply and demand planning activities across Reclamation’s mission areas. Planning activities include:

- **SECURE Water Act Report:** Reclamation’s activities related to climate change research, data, and developments are documented within this report. The report can identify risks and impacts associated with current and future climate, efforts with stakeholders to identify and implement adaptation and mitigation strategies, and collaborations in identifying the best available science. The report is prepared every 5 years.
- **West Wide Climate Risk Assessment (WWCRA) Team:** A team of Reclamation staff with technical expertise in hydrology and climate change modeling who perform activities to identify climate change impacts to water resources and risks and impacts to Reclamation’s operations. This team also supports activities related to Reclamation’s Climate Change Policy CMP 16 and Reclamation’s Climate Change Adaptation Strategy. The team meets quarterly with climate change experts from other Federal agencies.
- **Community of Practice for Climate Change:** A Reclamation-wide effort to build and incorporate climate change knowledge into Reclamation’s decisions and investments. A goal is to improve methods for risk-based decision making and account for the uncertainties associated with projecting future climate conditions. This activity is supported by the WWCRA Team.
- **Climate Change Case Studies:** The climate change case studies are internal to Reclamation and support efforts by Reclamation staff to develop methods to incorporate climate change information in Reclamation decisions and investments. The studies can help address the challenges of performing analyses and decisions under new levels of uncertainty with imperfect data.

For more information: Please visit <https://www.usbr.gov/watersmart/bsp/index.html> or contact Avra Morgan, at 303-445-2906 or amorgan@usbr.gov.

For more information on selected projects, visit www.usbr.gov/watersmart.