



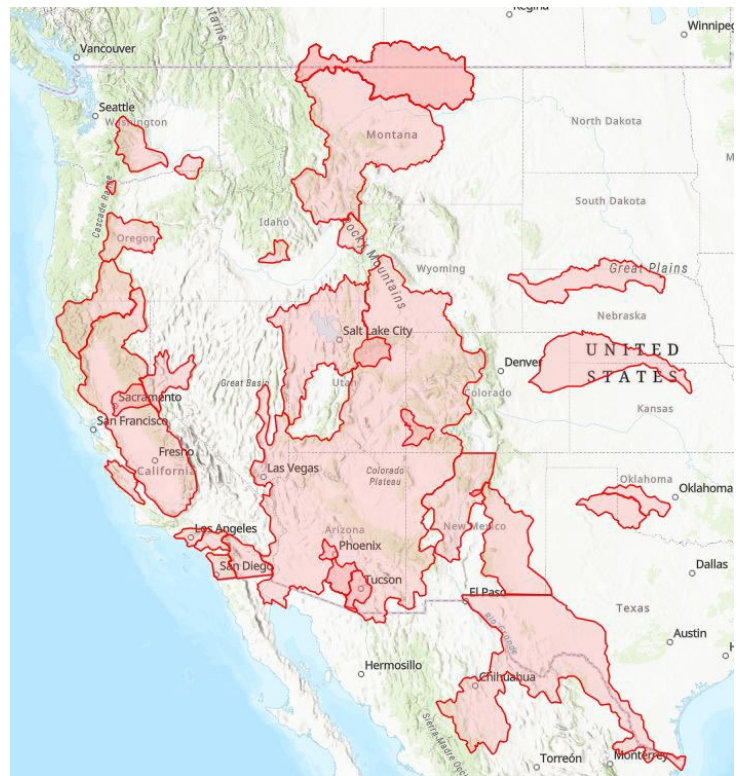
WaterSMART Basin Study Program

Reclamation's WaterSMART (Sustain and Manage America's Resources for Tomorrow) Basin Study Program supports collaborative planning to help Reclamation and its partners assess risks to water supplies from competing demands for water, drought, population growth, and other stressors, and to identify strategies to meet demands. The activities that comprise the WaterSMART Basin Study Program include: Basin Studies, Water Management Operations Pilots, Reservoir Operations Pilots, Applied Science Tools, 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.



Completed and Ongoing Basin Studies. Not pictured is the American Samoa Basin Study, selected in 2024.

To date Reclamation has funded 33 comprehensive Basin Studies, leveraging more than \$32 million in Federal funding with \$37 million in non-Federal funding to advance these collaborative studies. 22 of these studies have now been completed; and two are in the final review process prior to public release.

Water Management Operations Pilots (WMOPs) are follow-on studies to a completed Basin Study. The WMOPs allow Reclamation to continue working with state and local partners to identify solutions to water management issues. WMOPs may include additional analysis that would further develop strategies identified in a Basin Study and efforts to update or expand analysis from a Basin Study.

Since introducing the Water Management Options Pilots Program in 2019, Reclamation has funded 10 pilot studies to date, four of which have been completed. The most recently completed WMOP is the Truckee Viability Assessment that evaluates alternatives to the US Army Corps of Engineers 1985 Truckee Basin Water Control Manual and identifies an approach to improve future basin operations.

Reservoir Operations Pilots

Reclamation conducts Reservoir Operations Pilot Projects to support the application of science, information, and tools through multiple case studies. In 2015, Reclamation began the Reservoir Operations Pilot Initiative to identify possible improvements to western 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. Pilots selected in 2023 are:

- **Upper Colorado Basin:** “Evaluation of Operating Alternatives for Elephant Butte and Caballo Dams, Rio Grande Project”, NM
- **Columbia-Pacific Northwest:** “Evaluating Operational Alternatives to Improve Water Deliveries at Haystack Reservoir,” OR

Reclamation is developing site-specific pilots to test and apply new science and tools in basins related to ecological considerations impacting water management, improve operational efficiencies, and determine water availability for water marketing.



Elephant Butte Dam in Southern New Mexico

Climate Change Activities

Reclamation performs a variety of climate change activities to further advance the knowledge and understanding on how climate can affect and impact Reclamation facilities. 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.
- **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.
- **Climate Change Community of Practice:** A Reclamation-wide effort to build and incorporate climate change knowledge into Reclamation’s decisions and investments. The goals of the community are to operationalize climate change information across Reclamation's mission areas, advance the use of the best available science and tools, and to build a community and break down silos.
- **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 Stephanie Micek, at 720-799-3158 or smicek@usbr.gov or Sean Kimbrel, at 720-576-1323 or skimbrel@usbr.gov

For more information on selected projects, visit the WaterSMART Data Visualization Tool at <http://www.usbr.gov/watersmart>.