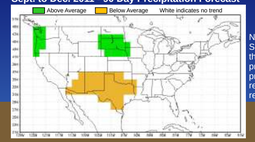
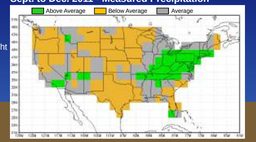
Sept. to Dec. 2011 - 90 Day Precipitation Forecast



Sept. to Dec. 2011 - Measured Precipitation



National Weather Service maps highlight the uncertainty of predicting future precipitation and resulting inflows to reservoirs.

Challenge of the Future

Great Plains seeks to proactively meet 21st century challenges in three broad areas:

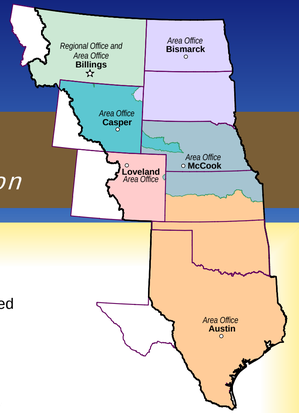
Facility Life Cycle Costs: Some of the Region's projects are among the first constructed by Reclamation. Most are more than 50 years old. The need for increased maintenance, structural changes and operational flexibility increases cost.

Competing Demands: Water is a finite resource with competing demands for supply. Changing demographics and economic realities impact Reclamation projects. Meeting new or increased water needs without adversely impacting others is our goal.

Hydrologic Uncertainty: Forecasting future water supplies and demands is an uncertain science. Reclamation facilities were constructed to overcome limited supplies for irrigation by storing runoff from spring and winter storms for use during dry months. Changing weather trends alter how well existing reservoirs will continue to meet that need.

Shoshone Powerplant near Cody, Wyoming, is the oldest in the Great Plains Region. Two retired original units are in front of a single modern generator with the capacity of the three original ones.

Regional Organization



The Great Plains Region is managed from the regional office in Billings, Montana, and six area offices located across nine states.

The Regional Director in Billings is assisted in managing the region by two Deputy Regional Directors and six area managers. This group, along with the heads of Engineering and Infrastructure, Business Resources and Resource Services, comprise the Regional Leadership Board.

The board localizes policy, makes budget decisions, and establishes vision and goals for the region.

Great Plains Areas

- Montana
- Dakotas
- Wyoming
- Eastern Colorado
- Nebraska-Kansas
- Oklahoma-Texas

Contact Information

Office of the Regional Director
Reclamation, Great Plains Region
P.O. Box 36900
Billings, MT 59107

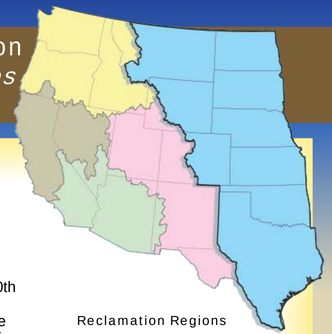
Phone: (406) 247-7600
Fax: (406) 247-7604
Email: mryan@usbr,gov

For a complete list of contacts go to: http://www.usbr.gov/gp/about_us/

RECLAMATION

Managing Water in the West

The Great Plains Region and Reclamation States Since 1902



Reclamation Regions

- Great Plains
- Pacific Northwest
- Mid Pacific
- Upper Colorado
- Lower Colorado

As a Department of the Interior agency, the Bureau of Reclamation oversees hundreds of dams, reservoirs and other water projects that Reclamation built during the 20th century. These dams, powerplants and canals are managed to balance the economic and ecological priorities of communities in 17 Western states ranging from Washington to Texas.

The 17 Western Reclamation States* are divided administratively into five regions based primarily upon river basins. The Great Plains Region is the largest and most ecologically diverse of the five regions and covers all or part of nine of the 17 states east of the Continental Divide extending from the Canadian border adjoining Montana and North Dakota, to the southern tip of Texas.

*16 Western states were originally named to be served by Reclamation. Texas was added in 1906.

In 1902, President Theodore Roosevelt signed legislation creating the Reclamation Service (later renamed the Bureau of Reclamation).

Belle Fourche Dam, 1908

Lower Yellowstone Canal, 1907

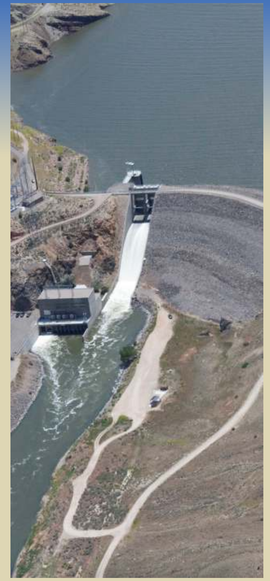
Angostura Dam, 1947

The Great Plains Region

The Great Plains Region is vast. It includes 856,000 square miles - more than half the area Reclamation serves. It covers most of nine states and encompasses a wide range of ecosystems from alpine tundra to the gulf coast. Facilities in the region face challenges unique to their location and demands on their operation. Because of geographical diversity, the region is typically impacted by drought and flooding at the same time.

Many of the first projects built by Reclamation are in what is now the Great Plains Region. These early projects are often called "single purpose" because their primary function was to store water for irrigation. Flood control, hydropower, recreation, fish and wildlife enhancement and municipal water evolved as the West was settled and demands on water supplies grew.

In the Great Plains Region there are 80 Reclamation reservoirs with a total capacity of 22.9 million acre-feet of water. Reclamation's assets, including canals, power and pumping facilities, dams and support buildings, have a current value of about $20 billion.



Boysen Dam and Powerplant in Wyoming is a unit of the Pick-Sloan Missouri Basin Program, a comprehensive basinwide development plan authorized by the Flood Control Act of 1944.

RECLAMATION

Managing Water in the West

Great Plains Region Delivers Benefits to Nine States

MONTANA • NORTH DAKOTA • SOUTH DAKOTA • WYOMING • COLORADO • NEBRASKA • KANSAS • OKLAHOMA • TEXAS

Facility Operation

Preparation for blasting for Pathfinder Dam's spillway modification. Pathfinder Reservoir now can store more water to meet the needs of Wyoming and to provide habitat along the Platte River in Nebraska.

Engineers inspect excavation of the embankment at Red Willow Dam in Nebraska as repairs begin under the Safety of Dams Program.

Increasing Efficiency and Reliability: Water management in the 21st century demands flexibility. Many Great Plains Region facilities have been modified from their original design to allow a wider range of water storage and release options. Wherever possible, powerplants generate electricity as water is released for irrigation and other uses (often through multiple generation units).

Meeting New Demands: Reclamation evaluates how facilities can meet the demands placed upon them. A classic example is historic Buffalo Bill Dam in Wyoming. It was built early in the 1900s to provide storage for irrigation. Power generation was added in the 1920s and has grown since. In the 1980s, the dam was raised to increase water supplies for more generation, new municipal needs and for environmental considerations. The reservoir is a state park and provides recreational opportunities for residents and tourists, including a privately run visitor center at the dam. Throughout these changes, farming in the original irrigation project continued.

Ensuring Safety: Keeping facilities safe and reliable is the function of the Safety of Dams Program. Facilities are routinely inspected and investigations conducted if deficiencies are identified. Structural improvements to dams and associated structures are made as necessary. Currently Red Willow Dam in Nebraska and Glendo Dam in Wyoming are being modified to ensure they continue to provide benefits safely.

Drinking Water

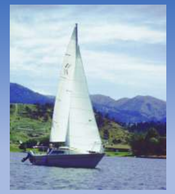
Samples of residential well water from an area served by a rural water project.

Reclamation delivers 10 trillion gallons of water to more than 31 million people each year.

Municipal, industrial and rural water projects in the Great Plains Region serve nearly three million people.

Many of the Region's reservoirs were authorized to provide water to nearby communities. In some cases, projects were constructed to pipe water hundreds of miles to homes and businesses. The northern tier of the Region hosts rural water projects that meet human and livestock needs in areas where groundwater supplies are limited or of poor quality.

Recreation



Sailing on Canyon Ferry Reservoir in Montana.

Reclamation manages 289 recreation sites through partnerships with state and local entities.

The Great Plains Region has 81 recreation areas that receive more than 14 million visits each year. Most of these recreation areas are managed by partners such as the USDA Forest Service, state game and parks agencies or local entities.

Recreation was not recognized as a purpose of Reclamation projects until the Reclamation Project Act of 1939. The Federal Water Project Recreation Act of 1965 reinforced the need to provide safe and healthy opportunities for public recreation at Reclamation projects.

Flood Control

A home threatened by the 100 year flood on the upper Missouri River in 2011.

Historically, Reclamation projects were not built for flood control, even though this is one of the many benefits provided by water storage facilities.

The Reclamation Project Act of 1939 expressly authorized flood control as a project purpose.

Since flood control records were kept, Reclamation facilities have prevented more than $30 billion in flood damages in river basins throughout the West.

As of 2011, Great Plains Region facilities averted about $3.3 billion in flood damages as computed by the Corps of Engineers.

Environment

Finishing the new concrete spillway crest at Pathfinder Dam.

Many Great Plains Region facilities were constructed in an era that placed less emphasis on impacts to the environment.

Today, Reclamation projects anticipate the needs of fish and wildlife and are operated to minimize adverse impacts to species and habitat.

The Region continues to lessen impacts to endangered fish by irrigation diversions such as the Lower Yellowstone Project in Montana. Reclamation also partners with the states of Wyoming, Colorado and Nebraska, in the Platte River Recovery Program. A major milestone was the modification of Pathfinder Dam in Wyoming, to provide storage for use by the program without affecting existing water users.

Irrigation

Irrigation in south central Nebraska.

Reclamation provides 1 out of 5 Western farmers with irrigation water for 10 million farmland acres that produce 60 percent of the nation's vegetables and one quarter of its fresh fruit and nuts.

Great Plains Region's 80 storage dams and 63 diversion dams provide water to more than 14,000 farms and irrigate 2.2 million acres. **The annual value of crops produced on those lands is nearly $1 billion.**

Increasing water and energy conservation by irrigators has been promoted using water measurement, canal automation and more efficient water application. Reclamation's AgriMet system provides plant specific water and weather data to assist farmers.

Hydropower

Yellowtail Powerplant in Montana, near the Wyoming border.

Reclamation is the second largest hydropower producer in the United States and operates 58 hydroelectric powerplants that produce an average of 40 billion kilowatt-hours each year.

The Great Plains Region has 21 powerplants that **generated 3.7 billion kilowatt-hours of electrical power worth over $150 million in fiscal year 2011.**

Many of the region's powerplants generate power when water is released for users. Others are available to provide power during periods of peak demand.

Working with Partners

WaterSMART Water and Energy Efficiency Grants: The SECURE Water Act authorizes federal water and science agencies to work with state and local water managers to plan for threats to water supplies and take action to secure water resources. Activities range from water conservation efforts and basin studies, to developing climate analysis tools and drought assistance.

Title XVI Water Reclamation and Reuse: Reclamation identifies and investigates opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water. Texas communities are currently constructing and expanding facilities using Title XVI funds.

Native American Water Rights Settlements: Federal responsibility for negotiating and implementing tribal water rights settlements is facilitated by Reclamation. Implementation of the $460 million Crow Tribal settlement in Montana is currently in progress. Negotiations and technical assistance are also underway with other tribes in the Region.

Rural Water Projects: Developing safe and reliable drinking water supplies for rural Americans uses about one half of the Great Plains region annual budget. Projects in Montana, North Dakota and South Dakota are currently under construction with matching federal funding from other sources. These projects have a federal cost share of $1 billion remaining at the end of fiscal year 2011.

International Boundary Water Issues: The Milk, Souris and Red Rivers flow across the boundary with Canada. The Rio Grande flows from the United States and marks the boundary between Mexico and the state of Texas. Great Plains Region represents United States water interests in managing water under treaties with the two countries.

Regional Director Mike Ryan and Crow Tribal Chairman Cedric Black Eagle sign documents implementing the Crow Water Rights Settlement.

WaterSMART funded Rubicon gate and telemetry system for Cameron County Irrigation District No. 2 on the Rio Grande in southern Texas.