

# Ensuring Healthy Watersheds and Sustainable, Secure Water Supplies



*The Department is tackling America's water challenges by providing leadership and assistance to States, Tribes, and local communities to address competing demands for water by helping improve conservation and increase water availability, restore watersheds, and resolve long standing water conflicts.*

*Sally Jewell, Secretary of the Interior  
June 6, 2013*

The health, security, economic, and ecological well being of the American people depend on adequate supplies of clean water. Water availability and quality are a constant and increasing challenge across the Country as intensifying droughts, increasing climate variability, and changing hydrology exacerbate water shortages, deplete groundwater resources, and contribute to impaired water quality. At the same time, population growth and new needs, including energy development, are increasing demand and competition for supplies.

Parts of the West are experiencing extreme and exceptional drought. Numerous basins are affected, particularly in Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, and Texas. Reservoir supplies providing some protection in previous dry years are averaging almost half of their historic levels. Snowpack, which acts like reservoir storage for many western basins, is diminishing. The Bureau of Reclamation, U.S. Geological Survey, and their many partners, including the National Drought Resilience Partnership, provide the necessary information to analyze the effects of drought and sometimes provide infrastructure and tools to assist State and local entities in planning for and mitigating some of the effects of drought.

The aquifers on which millions of Americans rely for freshwater are being depleted at an accelerating rate. In many cases, these aquifers accumulated over the course of millions of years. According to a USGS study, aquifer depletion in the years between 2004 and 2008 was nearly triple the historical average. Population growth and increasing demand intensified by drought are straining these underground freshwater sources.

Maintaining the key features of the water infrastructure is becoming more costly over time due to the condition of some of the components, cost increases in the broader economy, and the need for additional facilities rehabilitation, replacement, and extraordinary maintenance. New approaches are needed to ensure resiliency in the face of climate change as well as more volatile natural events and to provide prudent maintenance necessary to reliably deliver water supplies.

State governments and a complex array of laws and ownership regimes govern water allocation and use, but the Federal government has a role to play by providing leadership and support for sustainable water stewardship. Recognizing the primary role States and Tribes play in managing water resources and the critical need to address these challenges, Interior made water conservation a priority goal and provides leadership and support for sustainable water stewardship through partnerships with other Federal agencies, State and local governments, Tribes, industry, the agricultural sector, and other non-governmental partners. Interior works as a partner to increase reliability of water supplies for the benefit of people, the economy, and the environment by providing better tools for water management, promoting water conservation and efficiency, and wisely maintaining and improving infrastructure.

In collaboration with its partners, Interior develops comprehensive basin-wide assessments and adaptation strategies, which are critical to forecasting water needs, evaluating the availability of and risks to water supplies, and planning for the impacts of reduced or altered availability and increasing demands. Through basin studies and other assessment

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programs, Interior has helped to proactively resolve water shortage issues, promote water conservation and improved water management, and mitigate adverse environmental impacts of projects.

## **WATERSMART SUSTAIN AND MANAGE AMERICA'S RESOURCES FOR TOMORROW**

Interior continues to implement the WaterSMART Program. The program works to secure and stretch water supplies to benefit people, the economy, and the environment, and identify adaptive measures needed to address climate change and future demands. The Department's 2015 budget request includes \$52.1 million for water sustainability efforts through Reclamation, an increase of \$3.1 million from 2014 enacted levels. The budget request also includes \$14.5 million for the USGS WaterSMART Availability and Use Assessment program, which is known as the National Water Census. This is a \$6.4 million increase from 2014 enacted levels.

In 2013 and 2014, Interior continued to focus efforts on promoting sustainable water strategies, and improving water management through science, collaboration, and cooperation. These approaches were demonstrated through the Water Census, Reclamation Basin Studies and Cooperative Watershed Management programs, and through joint activities, like the Urban Waters Federal Partnership. Comprehensive basin-wide approaches such as these will be critical to assessing water needs, evaluating the availability of and risks to water supplies, and planning for the impacts of reduced availability and increasing demands in collaboration with Interior's partners.

For example, in the face of the current 14-year drought cycle—the worst in recorded history stretching back over 100 years of recordkeeping—Interior launched the Next Steps process with the Colorado River Basin States, Tribes, Federal agencies, water providers, and other stakeholders. Under the Next Steps process, three multi-stakeholder workgroups are addressing water management challenges in municipal and industrial conservation, agricultural conservation and transfers, and environmental and recreational river flows necessary to sustain a healthy watershed.

*National Water Census* – An important component of Interior's water sustainability strategy is to inform the public and decision makers about the status

and changes over time of the Nation's freshwater resources. Through the WaterSMART program, USGS has developed and begun implementation of the WaterSMART Availability and Use Assessment program, known as the Water Census. The Water Census will provide a more accurate picture of the quantity and quality of the Nation's water resources for beneficial uses and provide a basis for improved forecasting of water availability for future economic, energy production, and environmental uses.

### **NATIONAL WATER CENSUS WILL GUIDE AND IMPROVE WATER SUSTAINABILITY EFFORTS**

On April 3, 2013, Interior released a report to Congress on the progress of the National Water Census. The update to the Water Census, the first since 1978, will give the Nation critical new information about the availability and use of America's fresh water resources.

The USGS is initially focusing the Water Census on areas with significant competition for water availability and existing or emerging conflicts over water supply, such as the Delaware, Colorado, and Apalachicola-Chattahoochee-Flint River Basins.

The latest report on the Water Census, *Progress toward Establishing a National Assessment of Water Availability and Use*, is available at: <http://pubs.usgs.gov/circular/1384>.

*Basin Studies* – The basin study component of the WaterSMART program is a valuable tool to help States, local governments, and Tribes to address the potential for decreased and more volatile water supplies. Basin studies leverage Reclamation funding and technical expertise in a collaborative effort with knowledgeable State and local water practitioners to identify practical, implementable solutions to existing or anticipated shortages. The basin studies conducted to date have advanced the state of knowledge about the dynamics of each particular watershed and brought to bear a collective expertise to formulate constructive actions to address imbalances.

In 2015, Reclamation is continuing the strong partnerships with local water and conservation managers working together on comprehensive water

studies of river basins in Arizona, California, Colorado, Kansas, Nevada, and Oregon. In 2013, the San Diego Basin in California and West Salt River Valley Basin in Arizona were selected for basin studies. The Carson River in California and Nevada, Willamette River Basin in Oregon, and Arkansas River Basin in Colorado and Kansas were chosen for plans of study. A plan of study helps a cost-share partner, such as a local water district, define the outcomes and set the scope and focus for a potential future basin study. In 2015, Reclamation will continue to build strong partnerships with local water and conservation managers by working together on comprehensive water studies of river basins in the West. In 2015, the budget supports one or two basin studies in the western U.S. and one new West-wide climate risk impact assessment, which fulfills requirements of Section 9503 of the Secure Water Act.

*Cooperative Watershed Management* – In 2012, Interior established the Cooperative Watershed Management program in Reclamation, which has been very successful in building locally based support. In August 2013, five entities in Colorado, Idaho, and Oregon were selected to receive a total of \$485,423 over two years to establish or expand watershed groups. These grants build capacity for diverse watershed groups that in 2014 will address water

quality, ecosystem, and endangered species issues at the local level in their basins. In 2015, Reclamation will establish or expand four to six watershed groups.

*Other Partnerships* – Interior, along with other partners, is working with the Environmental Protection Agency in the Urban Waters Federal Partnership to restore urban waterways and reconnect city populations with the flowing rivers and streams in their immediate neighborhood. Cleaning up and restoring local water resources is essential to human health, economic vibrancy of communities, and an overall improved quality of life. Another collaborative endeavor between Interior and the Department of Agriculture, announced in July 2013, is the Western Watershed Enhancement Partnership to build resilience for critical water resource infrastructure. Flows of sediment, debris, and ash into streams and rivers after wildfires can damage water quality, reduce water storage capacity, and often require millions of dollars to repair damage to habitat, reservoirs, and facilities. This Federal, local, and private partnership will reduce the risks of wildfire to America’s water supply in western States by removing extra brush and other flammable vegetation around critical areas and help protect facilities and water quality through erosion control after wildfires.

<b>WATERSMART</b> (dollars in millions)			
	2014 Enacted	2015 Request	Change
<b>BUREAU OF RECLAMATION</b>			
WaterSMART Grants .....	19.0	19.0	0
Basin Studies .....	4.7	3.9	-0.9
Cooperative Watershed Management .....	0.3	0.3	0
Resilient Infrastructure .....	0	1.5	+1.5
Drought Response .....	0	1.5	+1.5
Title XVI Water Reclamation and Reuse Program .....	21.5	21.5	0
Water Conservation Field Services .....	3.4	4.5	+1.0
<b>Subtotal, Bureau of Reclamation .....</b>	<b>48.9</b>	<b>52.1</b>	<b>+3.1</b>
<b>U.S. GEOLOGICAL SURVEY</b>			
Fisheries .....	0.5	0.5	0
Land Change Science .....	0.5	0.5	0
Groundwater Resources .....	2.6	5.0	+2.4
Hydrologic Networks and Analysis .....	4.4	6.4	+2.0
Cooperative Water Program .....	0	2.0	+2.0
<b>Subtotal, U.S. Geological Survey .....</b>	<b>8.1</b>	<b>14.5</b>	<b>+6.4</b>
<b>TOTAL, WATERSMART PROGRAM .....</b>	<b>57.0</b>	<b>66.5</b>	<b>+9.5</b>

## RESOLVING LAND AND WATER CLAIMS

### PRIORITY GOAL WATER CONSERVATION

**GOAL:** Enable capability to increase the available water supply in the western States through conservation-related programs to ensure adequate and safe water supplies.

**METRIC:** By September 30, 2015, the Department of the Interior will further enable the capability to increase the available water supply for agricultural, municipal, industrial, and environmental uses in the western United States through Reclamation water conservation programs to 840,000 acre-feet, cumulatively since the end of 2009.

The 2015 budget request for Indian water settlements continues to demonstrate the Administration's strong commitment to resolving tribal water rights claims and ensuring Tribes have access to use and manage water to meet domestic, economic, cultural, and ecological needs. The projects supported in these agreements will bring clean and potable water to tribal communities. These investments will not only improve the health and well being of tribal members, but will bring the opportunity for jobs and economic development enabled by the availability of stable water supplies. The 2015 budget request for technical and legal support and for authorized settlements involving tribal waters totals \$171.9 million, an increase of \$13.8 million over 2014. This includes \$24.2 million for Interior-wide technical and legal support and \$147.6 million for settlement implementation, of which \$112.0 million is funded by Reclamation and \$35.7 million by the Bureau of Indian Affairs.

### INDIAN LAND AND WATER RIGHTS SETTLEMENTS (dollars in millions)

	2014 Enacted	2015 Request	Change
<b>BUREAU OF RECLAMATION</b>			
Ak Chin Settlement .....	12.4	14.1	+1.7
Aamodt Settlement .....	4.7	3.0	-1.7
Crow Settlement .....	7.5	2.0	-5.5
Navajo-Gallup Water Supply Project .....	60.5	81.0	+20.5
Taos Pueblos Settlement .....	4.0	4.0	0
White Mountain Apache Settlement .....	2.0	0	-2.0
Other Ongoing Settlement Operation and Maint.....	8.7	7.9	-0.8
<b>Subtotal, Reclamation .....</b>	<b>99.7</b>	<b>112.0</b>	<b>+12.3</b>
<b>BUREAU OF INDIAN AFFAIRS</b>			
Duck Valley Reservation Settlement .....	12.0	0	-12.0
Aamodt Settlement .....	0	6.2	+6.2
Navajo-Gallup Water Supply Project .....	7.8	9.0	+1.2
Taos Pueblos Settlement .....	8.8	15.4	+6.6
Navajo Nation Water Resources Trust Fund .....	6.0	4.0	-2.0
Other Ongoing Settlement Operation and Maint.....	1.0	1.0	0
<b>Subtotal, Indian Affairs .....</b>	<b>35.7</b>	<b>35.7</b>	<b>0</b>
<b>TOTAL, INDIAN SETTLEMENTS <sup>1/</sup>.....</b>	<b>135.3</b>	<b>147.6</b>	<b>+12.3</b>

<sup>1/</sup> This table includes current funding only. The last year for the \$60.0 million annual permanent appropriation provided to the Reclamation Water Settlement Fund in the Claims Resolution Act of 2010 is 2014.

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## DROUGHT RESPONSE

With the Colorado River Basin in a 14-year drought cycle that is the worst in 100 years, California in one of the driest periods on record, and other States experiencing continued drought, Interior is focusing efforts on working with partners to increase flexibility for water managers and users. Recognizing the severity of the situation in the West, President Obama went to California in February to affirm his commitment that the Administration will do everything it can to help the farmers, ranchers, small businesses, and communities impacted by the drought.

In California, the Departments of the Interior, Agriculture, and Commerce are working with the State to accelerate water transfers and exchanges, provide operational flexibility to store and convey water, expedite environmental review and compliance actions, and pursue new or fast-track existing projects that might help stretch California's water supplies. Reclamation finalized its *2014 Plan for the Central Valley Project* which outlines actions that can be taken in the near-term to manage ongoing water supply challenges such as expanding operational flexibility and streamlining the water transfer process. Federal and State officials are also discussing a collaborative response to the drought to minimize its social, economic, and environmental impacts. Other agencies joining the effort include the National Marine Fisheries Service, Natural Resources Conservation Service, National Oceanic and Atmospheric Administration, and the U.S. Army Corps of Engineers.

Reclamation and NRCS are working to leverage Federal funds for water delivery agencies and agricultural producers. In 2014, they will jointly provide up to \$14.0 million in funding, \$7.0 million from Reclamation and \$7.0 million from NRCS, for water districts and associated growers to promote conservation of water and improve water management. The projects funded through this partnership will help communities build resilience to drought by modernizing their water infrastructure and efficiently using scarce water resources while continuing to support the agricultural economy. Water conservation and efficiency improvement projects implemented since the Reclamation-NRCS partnership was established in 2011 have helped water purveyors and producers prepare for and respond

to the current drought conditions. The \$20.8 million invested through that program has already saved 38,000 acre-feet of water each year and helped increase water efficiencies on-farm by an average of 25 percent. The Southern San Joaquin Irrigation District, an early member of this partnership, announced in 2013 that farmers served by the project increased their crop yields by 30 percent while using 30 percent less water.

In the Colorado River Basin, Reclamation is working with the seven Basin States to craft new strategies to ensure critical infrastructure, such as the Hoover and Glen Canyon Dams, continue to operate as intended and assist agricultural and municipal users to address current and future water challenges. In addition, Reclamation and the International Boundary and Water Commission are implementing a new agreement with the Republic of Mexico to allow storage of Mexican water in U.S. reservoirs, reducing and delaying the need for extraordinary shortage measures in the U.S.

In the Klamath River Basin, Interior is working with other Federal agencies, California and Oregon, Tribes, and non-governmental organizations to restore the Basin while also sustaining the communities that rely on the resources of the Basin. In December 2013, Oregon Governor John Kitzhaber, Senators Ron Wyden and Jeff Merkley, and Reclamation Commissioner Mike Connor joined with members of the Klamath Basin Task Force and Upper Basin Water Group to announce an Agreement in Principle on upper basin water and economic issues. The agreement lays out solutions to outstanding water and resource management issues and addresses ways to improve the economic condition of the Klamath Tribes. Following input from community members, it is anticipated that the agreement will be finalized in 2014.

The USGS is re-calibrating streamflow monitors in the Sacramento-San Joaquin River Delta to ensure accurate measurements of water availability during these extraordinarily low water levels. The USGS is briefing resource agencies on the latest scientific and technical information regarding water management options. They are monitoring groundwater availability and quality and studying the impacts of subsidence due to groundwater withdrawal. The USGS continues to monitor hazards that could affect water availability and the effect of drought on plant and animal populations.