WASHINGTON COUNTY
WATER CONSERVANCY DISTRICT

Water Line™

2012 Special Winter Edition • Water for Today and Tomorrow™

Is it the job of a water conservancy district to manage growth?

Manager's Message

by Ron Thompson
General Manager

The Washington County Water Conservancy District was established to conserve, develop, manage and stabilize water supplies within the county. The District is a "special purpose" district, in large part because the business of water is complicated. Particularly in the West, laws, rules, history, traditions and the complex facts of hydrologic cycles in desert river systems create layer upon layer of interacting factors. This specialty is one that many may know a little bit about, but few know a lot about.

The District's job, therefore, requires extensive study and research and the accumulation of a substantial body of knowledge to aid in formulating and guiding decisions that will serve the public. Perhaps this is one of the reasons that the legislature has structured water conservancy districts to have board members selected by appointment. These public servants, who are paid virtually nothing for their service, must devote many hours to learning about water in their particular service area and in the West, in order to help guide the direction of their district.

To be fully informed, meeting attendance is a must.

A water conservancy district is not in the business of promoting, encouraging, limiting or restricting growth. The decisions that govern the amount, location and type of growth are delegated to elected officials of the municipalities and the county. The election process, the constitutional mechanism by which government obtains the "consent of the governed," ensures that these officials are responsive to the desires of those who elect them. These elected officials decide what limits will be placed on the choices people make as to where and how they live and work. A water conservancy district can then respond to the plans produced by the elected representatives of the people. Water districts do their best to make sure that water flows out of the tap each and every time it is turned on.

Many who oppose growth in Washington County would like the District to lead that charge by refusing to develop new water supplies, such as the Ash Creek and Warner Valley Reservoirs and the Lake Powell Pipeline Project. For one reason or another, they claim that the pipeline project idea is:

- poorly considered,
- not timely, or
- otherwise ill-advised.

One thing is certain. The people who make these claims have not taken the time to attend the many public meetings held:

- by the Board of Trustees of the District,
- by city councils that have addressed questions related to the pipeline project,
- by the Board of Water Resources of the State of Utah,
- by the Governor's office, or
- by the Legislature.

If people attended these meetings, they would come to realize that countless hours of analysis go into the evaluation of the need for the Lake Powell Pipeline Project as well as the most economical approach to decisions concerning its timing and design. These efforts have been undertaken not only by District staff but also by professional consultants and the Utah Division of Water Resources.

Residents of southern Utah must have access to sufficient water resources to meet their needs and sufficient water must also be left in our rivers and streams to ensure that wildlife and native species will thrive.

This is within the purview of a water conservancy district.

This is the objective of future District projects.

Is Lake Powell a dependable source of water for southwestern Utah?

By Corey Cram, Associate General Manager

The reservoirs on the Colorado River system are rarely expected to be full. Significant periods of above-average precipitation and runoff, however, could fill the reservoirs to capacity. The rest of the time they are expected to rise and fall as a function of wet or dry years. Storage is designed to withstand long-term droughts and water levels are expected to vary. It should be no surprise that Lake Powell is currently low considering the drought conditions that have been prevalent since 2000.

During 2007, Lake Powell Reservoir was about half full. This condition is expected, considering that inflows to the lake have been much less than average (with the exception of 2005) and drought conditions have prevailed since 2000. Inflow in 2002 was the lowest ever recorded since the lake began filling in 1963.

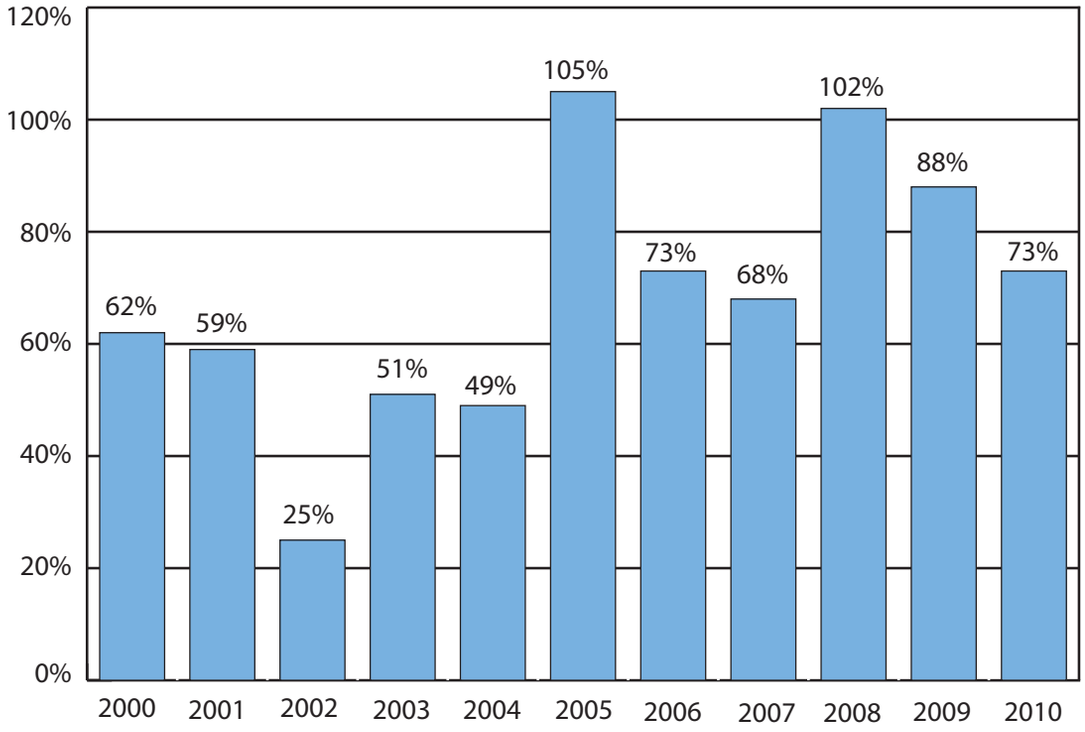
Even in recent years with below average flows and the greatest drought in recorded history on the upper Colorado River, storage in Lake Powell has allowed the Upper Basin to deliver the required amount (7.5 million acre feet) of water to the Lower Basin. During that time, Utah water users and the other states in the Upper Basin have not had to curtail use to meet downstream demands. The Colorado River reservoir system is working.

When confronted with even greater droughts or climate change that could further decrease precipitation, the Colorado River at Lake Powell is the best place on the upper river system to withdraw water. The Lake Powell Pipeline water right is a good priority compared to other water rights in the upper Colorado Basin in Utah.

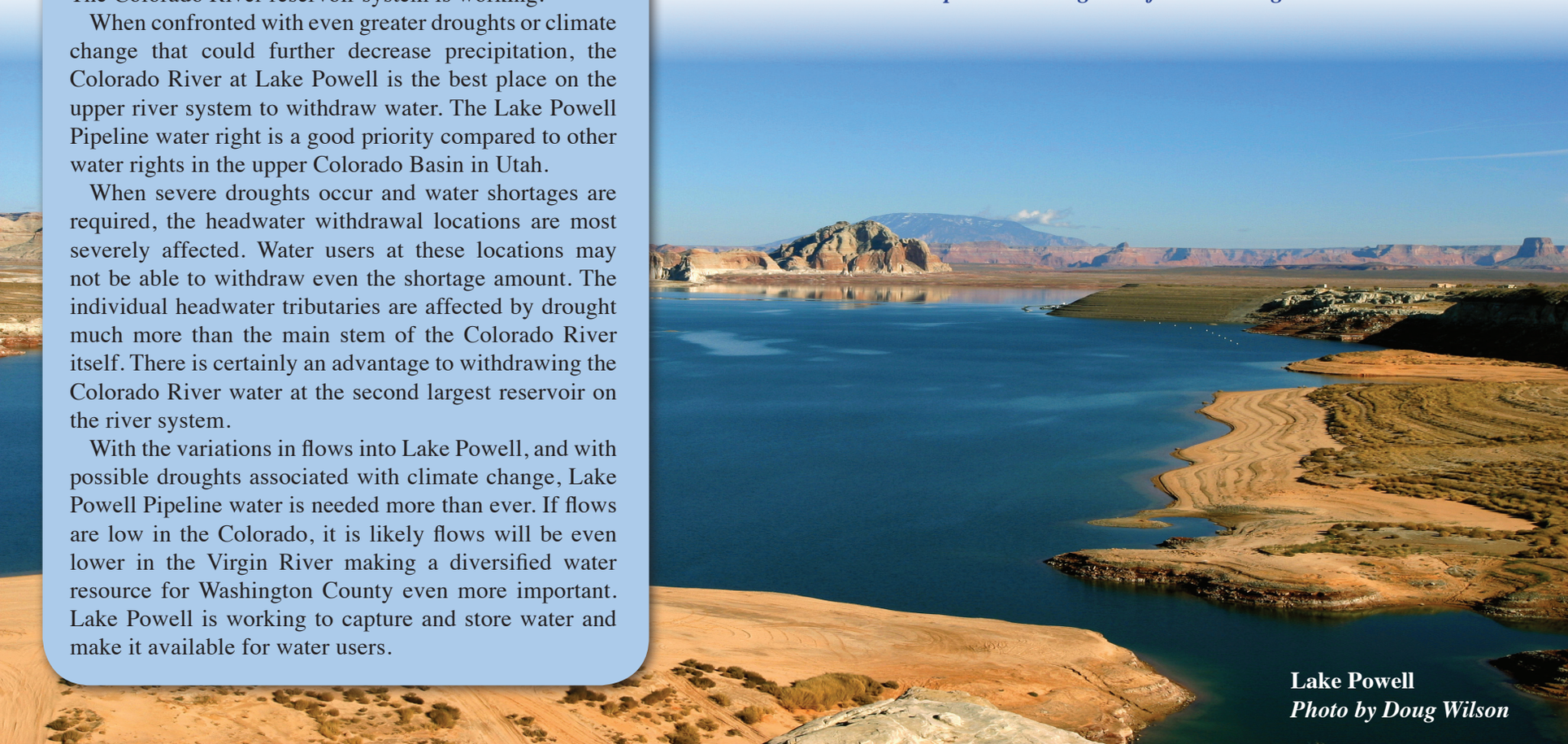
When severe droughts occur and water shortages are required, the headwater withdrawal locations are most severely affected. Water users at these locations may not be able to withdraw even the shortage amount. The individual headwater tributaries are affected by drought much more than the main stem of the Colorado River itself. There is certainly an advantage to withdrawing the Colorado River water at the second largest reservoir on the river system.

With the variations in flows into Lake Powell, and with possible droughts associated with climate change, Lake Powell Pipeline water is needed more than ever. If flows are low in the Colorado, it is likely flows will be even lower in the Virgin River making a diversified water resource for Washington County even more important. Lake Powell is working to capture and store water and make it available for water users.

Inflows into Lake Powell over the last decade



Percent of average Lake Powell inflows (from the Bureau of Reclamation), ***http://www.usbr.gov/uc/feature/drought.html***



Lake Powell
Photo by Doug Wilson

Is there sufficient water in the Virgin River Basin to independently meet Washington County's needs?

by Corey Cram, Associate General Manager

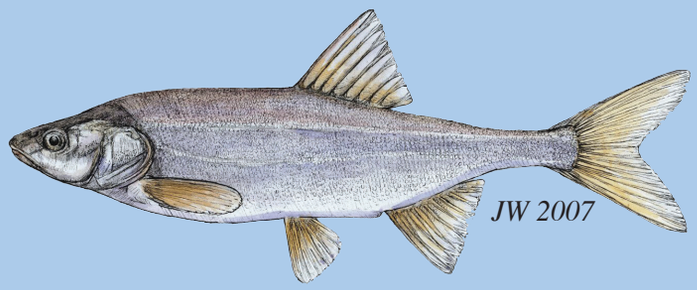
Those opposed to growth in Washington County contend that the 125,000 acre feet (AF) of water that discharges in the Virgin River on average each year is a sufficient water supply to meet future human and wildlife requirements thereby rendering the Lake Powell Pipeline unnecessary.

FACT:

- 125,000 AF is an average which only occurs three out of ten years. Seven out of ten years, the Virgin River runs well below that average. Water supplies must be reliable and always capable of meeting needs.
- High Virgin River flows resulting from a flood cannot be captured because there are no on-stream reservoirs. Environmental issues preclude the construction of an on-stream reservoir. The District's reservoirs (Quail Creek and Sand Hollow) are off-stream and require piping of the water to the reservoirs. The excessive debris in the flood water as well as the sediment would clog and damage pipelines and other infrastructure.
- The water diversion and transmission infrastructure will not allow for diversion of 125,000 AF feet of water. Infrastructure is sized for available water rights and the amount of water which reliably occurs.
- There are six native fish, including two endangered species in the Virgin River. If all of the river water were diverted, the river would dry up thereby severely impacting these species. The District, as a partner in the Virgin River Program, is committed to providing water in the Virgin River to protect and enhance aquatic habitat. The high salinity of the water below Pah Tempe Hot Springs renders the water unusable for culinary purposes.
- Due to irrigation water rights, the District can capture water for storage in Quail Creek and Sand Hollow Reservoirs only four months out of the year.
- 2005 was a high water year for Washington County. There was a total annual yield of 379,384 AF of water. 273,281 AF of that could not be captured due to flood conditions, water rights, and required instream flows.

High flows during flood events cannot be captured in District pipelines

Endangered woundfin



Endangered Virgin River Chub

North Fork of the Virgin River in Zion national Park
Photo courtesy of Doug Wilson

Conservation Corner

By Julie Breckenridge, Water Conservation Coordinator

Would you be willing to reduce your outdoor water use by 90%?

It is estimated that water from the Lake Powell Pipeline Project will be needed in Washington County by 2020.

If the Lake Powell Pipeline is not built, the District would have to try to find other sources of water equaling the 69,000 AF shortage by 2020.

Draft Study Report #22, written by the Lake Powell Pipeline Project consultant, MWH, looks at four sources of water and the impacts each source would have on Washington County. This article will feature just the impacts that aggressive water conservation would have on Washington County and its residents.

An all-out aggressive conservation campaign would restrict water for outdoor use to 10.3 gallons per capita per day (an 89.4% reduction in outdoor water use).

- All trees, plants, grass and bushes would have to be removed.
- Shade trees that have been here since the days the first pioneers arrived would be removed.
- Only a limited amount of xeriscaping would be allowed.
- Vegetable and ornamental gardens as well as fruit trees would be prohibited.
- Surfaces would have to be covered with either rock or concrete if dust and weeds are to be kept down.
- Hardscape would lead to higher temperatures resulting in increased power demands.
- Visual resources would deteriorate as cement and rocks take the place of the colors of local flora.
- Air quality would deteriorate as particulate matter would increase as a result of exposed soil.
- As compliance would be mandatory, a program would have to be developed by the District to investigate reported violations for using more than 10.3 gallons of water per capita per day. Fines would be attached to these violations.
- Groundwater levels could decline because there would be no recharge with the severe restrictions on outdoor watering.
- Restricted irrigation would result in less return flows to the Virgin River severely impacting aquatic species, wildlife and habitat.

To read the entire Draft Study Report #22, log on to
wcwcd.org/projects/current-projects/lpp-lake-powell-pipeline/

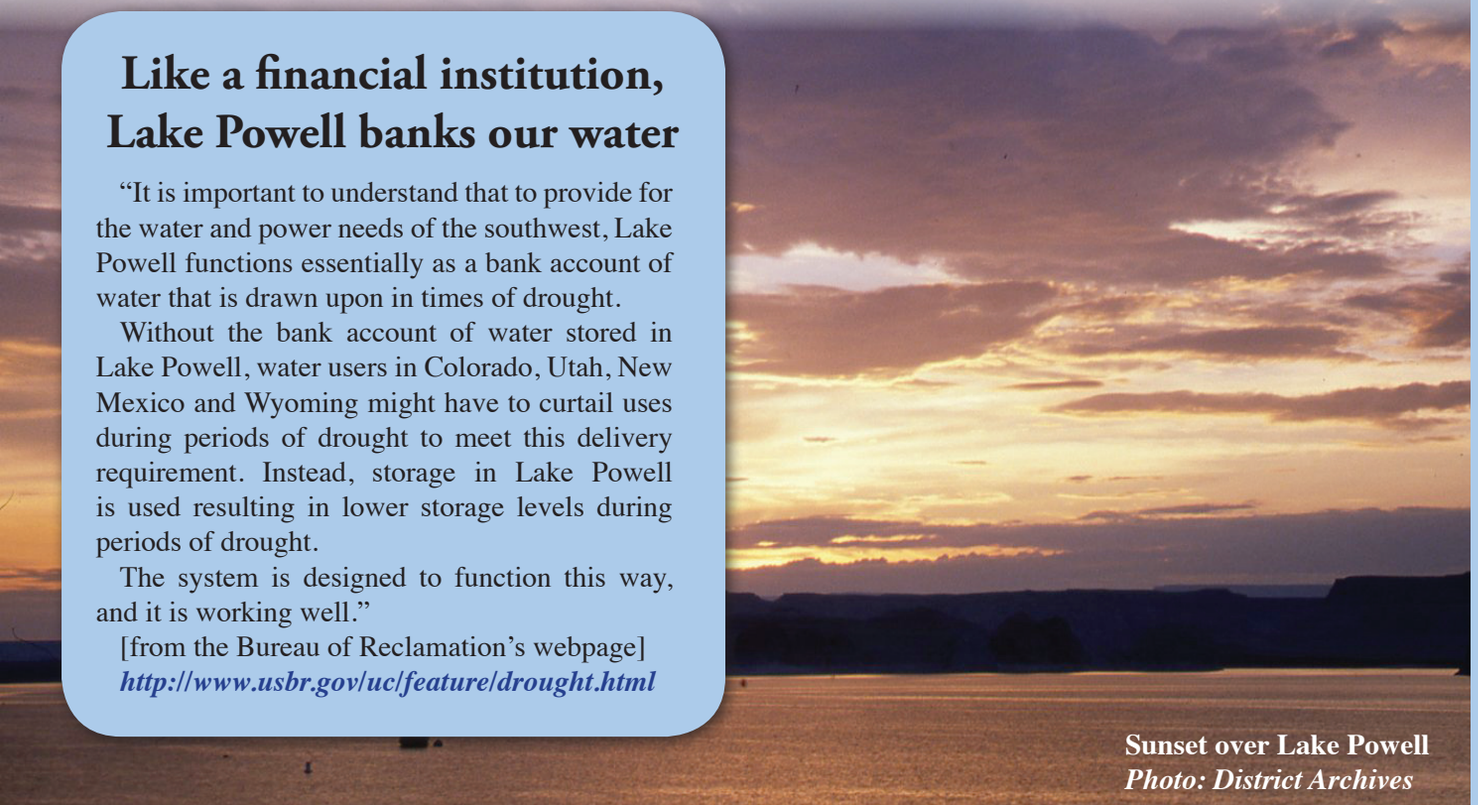
Like a financial institution, Lake Powell banks our water

"It is important to understand that to provide for the water and power needs of the southwest, Lake Powell functions essentially as a bank account of water that is drawn upon in times of drought.

Without the bank account of water stored in Lake Powell, water users in Colorado, Utah, New Mexico and Wyoming might have to curtail uses during periods of drought to meet this delivery requirement. Instead, storage in Lake Powell is used resulting in lower storage levels during periods of drought.

The system is designed to function this way, and it is working well."

[from the Bureau of Reclamation's webpage]
http://www.usbr.gov/uc/feature/drought.html



Sunset over Lake Powell
Photo: District Archives

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Editor: Ann Jensen

Contributors:
Ron Thompson,
General Manager

Corey Cram,
Associate General Manager

Julie Breckenridge
Water Conservation Coordinator

Photos:
Doug Wilson

Layout:
Tamara Kleiner & Ann Jensen

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The Spectrum

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Board Meeting - 6:00 pm
Tuesday, February 21
Tuesday, March 20
Tuesday, April 17