"The Colorado River is already fully used.

In the very near future, the demand for the river's resources will far exceed the available supply. In order to meet the needs of people and aquatic dependent species and habitats, new ways of thinking and doing business will be essential."

> -ERIC KUHN, GENERAL MANAGER, COLORADO RIVER WATER CONSERVATION DISTRICT

Colorado River system conservation

A new way of thinking and doing business...

The Colorado River flows 1,450 miles from its headwaters in the Rocky Mountains to the Gulf of California, delivering water to some 36 million people for agricultural, industrial, and municipal needs as well as supporting a booming recreation economy and amazing fish and wildlife habitat. It's one of the hardest working rivers in the West.



BUT TODAY, the Colorado Basin is facing a host of challenges, including increased water demands from growing cities, a changing climate of prolonged drought and decreased snowpack, and declining water levels in Lakes Powell and Mead that, if not checked, could trigger future water calls and conflict. To meet these challenges and secure our water future, the Bureau of Reclamation, several municipal utilities and other river stakeholders launched an innovative pilot program—the **System Conservation Pilot Program** (SCPP)—to test the willingness of landowners, ranchers, municipalities and other water users to take part in voluntary, compensated reductions in water use.

The good news: This market-based approach to water conservation shows great promise in helping the overtaxed Colorado River meet the water needs of people and the environment—even in the face of extended drought and a growing population. But the program needs renewed support to help secure our water future.

In the **Upper Colorado River Basin** (above Lake Powell), system conservation means payments to water users for voluntary, temporary reductions in water use.

Conservation markets securing the West's water future

Great Salt

I ake

Vegas

Mead

Powell

Key features of SCPP:

Ranchers, landowners and others are paid for reducing consumed water through conservation practices such as **switching to less water-intensive crops and reducing water applications** (partial-season and deficit irrigation). These methods provide alternatives to permanent "buy and dry" of agricultural water rights.

Conserved water is left in the stream to flow down to reservoirs to benefit both water security and river health and habitat.

The goal of the SCPP is to test mechanisms that can bolster storage levels in Lakes Powell and Mead, protecting hydropower capacity and reducing the risks of involuntary water cut-backs. The long-term goal of SCPP is to **bolster storage levels in Lake Powell** to protect against loss of hydropower capacity and ensure the Upper Basin can meet its obligations to the Lower Basin under the 1922 Colorado River Compact.



In the Lower Colorado River Basin, system conservation is focused on protecting reservoir levels in Lake Mead to maintain hydropower generation and guard against potentially massive involuntary water shortage cuts, particularly to agriculture in Central Arizona.

Los Angeles

San Diego

Salton

*For comparison, one suburban household consumes about one acre-foot per year.

SCPP in the Upper Basin

Cheyei

Salt Lake City

Flaming

Gorge

Reservoir

Yampa R.

rado River

Albuquerque

In 2015–2016, the SCPP conserved approximately 11,400 acre-feet (AF)* of water with about 32 projects.

Roughly 75% of the water was conserved through temporary, split- or late-season fallowing ranchers and farmers irrigated for part but not all of the potential irrigation/production season.

ROUND 3 (2016–2017)	
\$7.5 million The total value of all applications submitted.	
\$1.8 million	

A number of applications did not get funded. The program needs expanded support.

available for funding.

In the 2016–2017 round, water users submitted 47 applications for SCPP projects, with a potential 20,000 acre-feet of water savings in Wyoming alone.

Who does SCPP benefit?

Agriculture producers,

by providing income from temporary water transactions that can boost their bottom lines and be used to upgrade existing irrigation systems, enhancing the viability of agriculture into the future. Fish and wildlife, by conserving water that maintains healthy flows and habitat as it moves downstream to storage reservoirs.

Municipalities, by shoring up system-wide water supply in the Colorado Basin and securing hydropower production.

CARBON CANAL, UT

After TU helped the Carbon Canal Company secure funding for irrigation system upgrades, six members of the company agreed to SCPP projects that have conserved nearly 2,000 acre feet of consumptive water and helped ensure healthy flows in the Price River. Moreover, the SCPP payments have created a positive local buzz about water leasing programs. "Farming in the high desert in Eastern Utah means we need to be smart with how we use our water. System conservation gives producers a tool to add flexibility in our water management."

-KEVIN COTNER, KC AG LLC, PRICE RIVER, UTAH

What have we learned?

While the SCPP is still in its early stages, here are several lessons learned:

- Agricultural producers are showing strong interest in the program—current program funding is not meeting the demand.
- These projects are also benefiting habitat for fish and wildlife with more water left in the stream in late summer months.
- A sustainably funded, multi-year program would help ensure broader participation by giving agriculture producers more certainty in their planning.



FONTENELLE CREEK, WY

In the Fontenelle drainage, every water right holder will temporarily fallow during the 2017 irrigation season. The conserved water will flow into Fontenelle Reservoir, which could play a critical role in future water marketing efforts. At the same time, TU and its project partners continue to update irrigation diversions to facilitate fish passage and reduce maintenance costs.



The time to act is now

The System Conservation Pilot Program has begun to demonstrate the value of market-based incentives for conservation among water users in the Colorado River Basin. In fact, user demand for these incentives has outstripped funding.

Modest amounts of renewed funding are needed now to:

- build on the progress to date,
- · provide water users with more certainty, and
- set the stage for a longer-term demand reduction system to ensure the Colorado River continues to meet the future needs of cities, agriculture and the environment.

For further information, contact:

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"I look at my ranch operation every year, and the System Conservation Pilot Program provides some much needed flexibility for my water and cattle operations."

-CHAD ESPENSCHEID, BUDD-ESPENSCHEID RANCH, WYOMING