

# H<sub>2</sub>O Tucson

The Latest News for Tucson Water Customers

[www.tucsonaz.gov/water](http://www.tucsonaz.gov/water)

– *New organization could find/acquire more water*

## Working Together to Enhance Our Water Resources

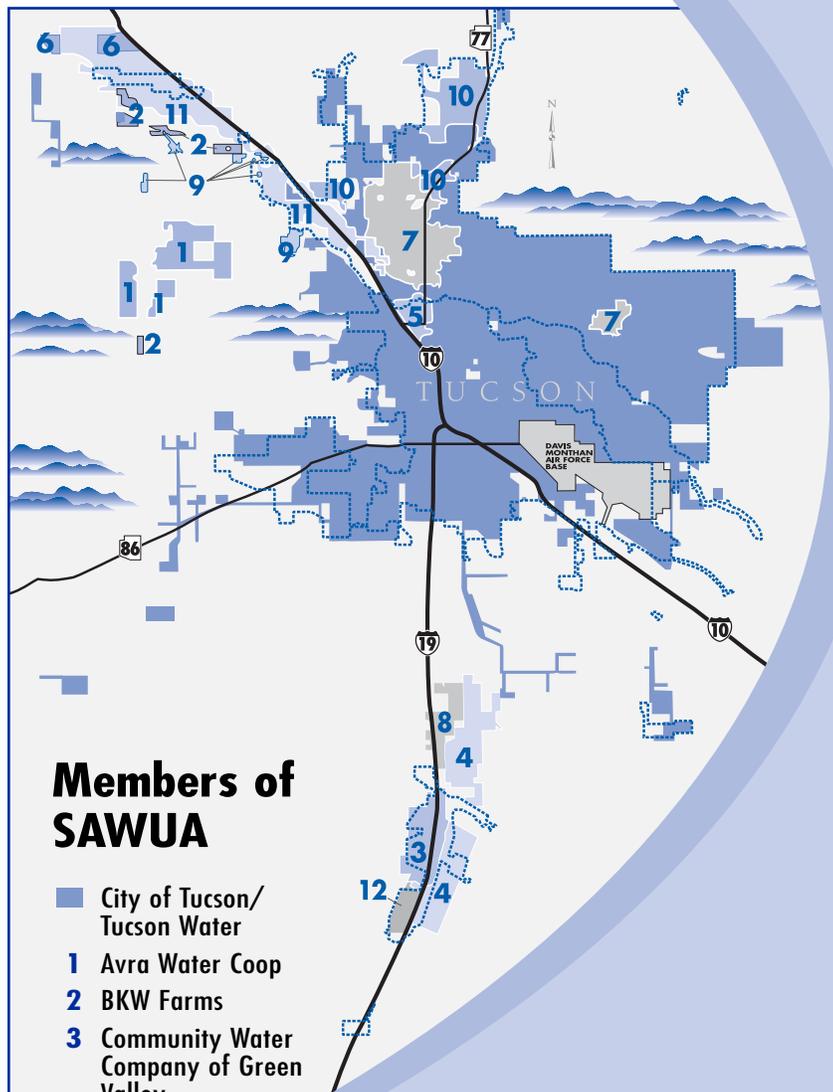
Tucson Water's Long Range Water Plan points out the importance of renewable water resources in our region's future. With a growing need to further reduce groundwater pumping and demand for water on a steady upward course, we'll need to fully use our Colorado River water, discuss how best to use our effluent, and continue to take conservation seriously.

We also need to be seeking other sources of water. Doing that cooperatively as a region would be the most sensible approach, since it would mean local water providers would not be competing with each other for water. In addition, by working together, we can more effectively compete with other state and regional water users for new supplies.

The water utilities, governments, and agricultural water users in the Tucson region currently work together in an organization called Southern Arizona Water Users Association (SAWUA). Members, including Tucson Water, cooperate on water management issues for the good of the entire region.

Recently, in response to a proposal initiated by Tucson Water, this group suggested that a new regional organization be created to

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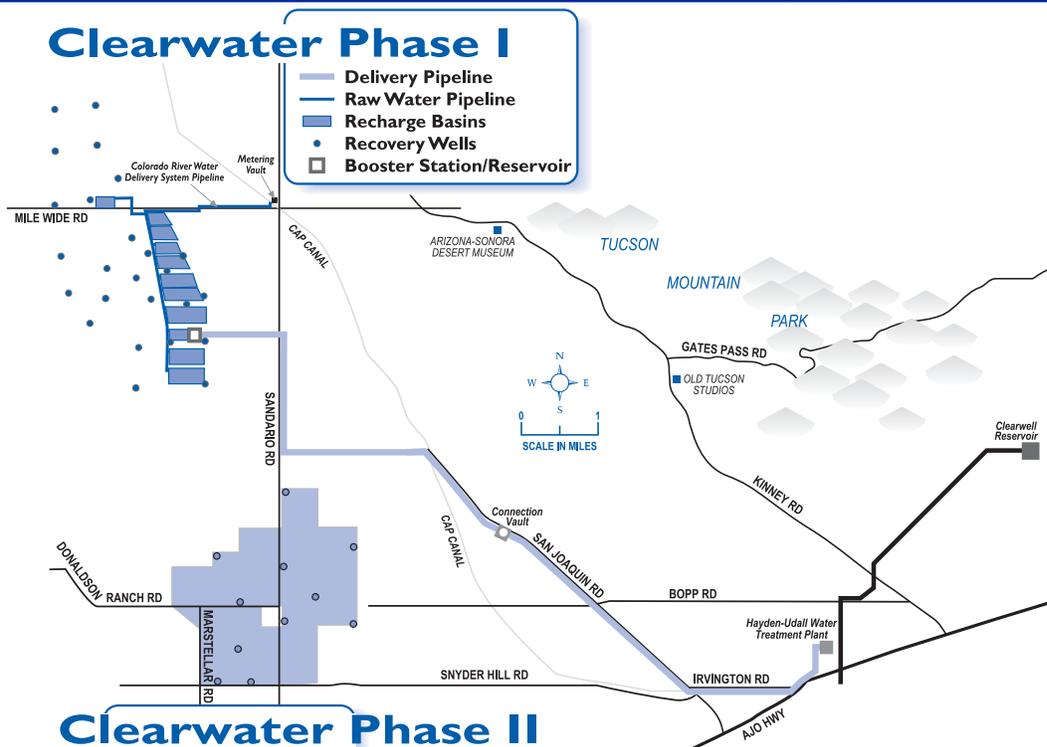
### Members of SAWUA

- City of Tucson/  
Tucson Water
- 1 Avra Water Coop
- 2 BKW Farms
- 3 Community Water  
Company of Green  
Valley
- 4 Farmers Water Company
- 5 Flowing Wells Irrigation District
- 6 Kai Farms
- 7 Metropolitan Domestic Water Improvement District
- 8 Rancho Sahuarita Water Company
- 9 Town of Marana
- 10 Town of Oro Valley
- 11 Cortaro-Marana Irrigation District
- 12 Green Valley Water Co.
- Pima County Wastewater Management Department

# Why Clearwater Phase II is So Important to Our Water Future

## Clearwater Phase I

- Delivery Pipeline
- Raw Water Pipeline
- Recharge Basins
- Recovery Wells
- Booster Station/Reservoir



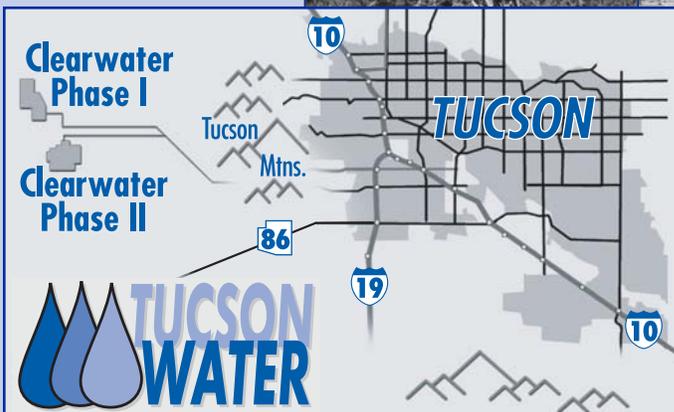
## Clearwater Phase II

- Phase II Boundary
- Potable Supply Wells

The completion of the first phase of Clearwater in 2001 let Tucson begin using part of its allocation of Colorado River water. Recently, Tucson Water obtained permission from the State of Arizona to recharge more water there, but, in order to use even more of our allocation, an additional recharge and recovery project is needed. Last May, voters approved water bonds to fund a second recharge facility in Avra Valley south of Clearwater. Clearwater Phase II will allow us to recharge almost all our remaining river water. Because Phase II will be built in an area where Tucson Water already pumps groundwater, once the new delivery line and recharge basins are built, the new blend can be recovered through the existing pumping facilities.

**Recharge Basin (near right):** Clearwater's basins allow Tucson Water to recharge more than 26 billion gallons of Colorado River water each year.

**Basins (far right):** Each of Clearwater's 11 recharge basins is designed to allow the water to percolate down into the soil as quickly as possible, to reduce evaporation and to increase the amount of water we can store underground.



# How Water Recharge Works

Recharge is a wonderful way to put nature to work for us enhancing the quality of our water supply. Here's how it works at the Clearwater Facility.

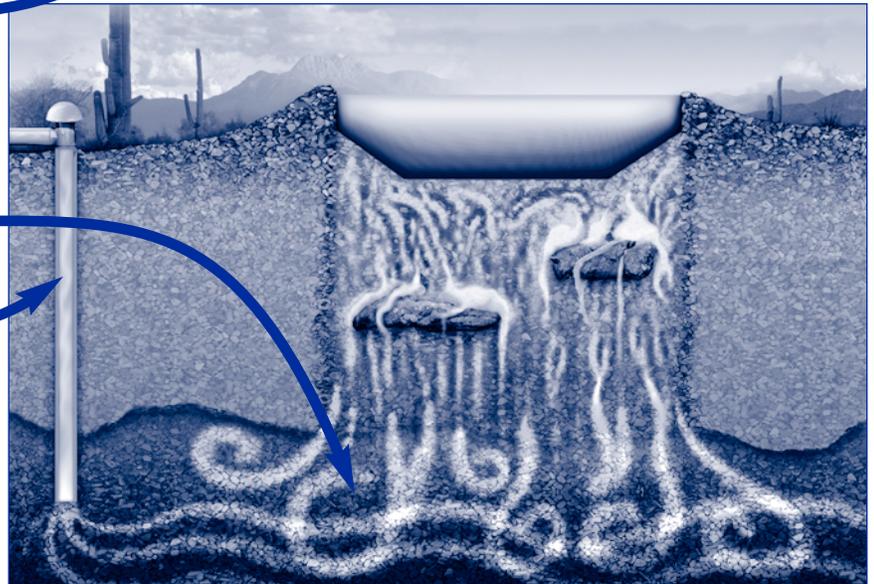
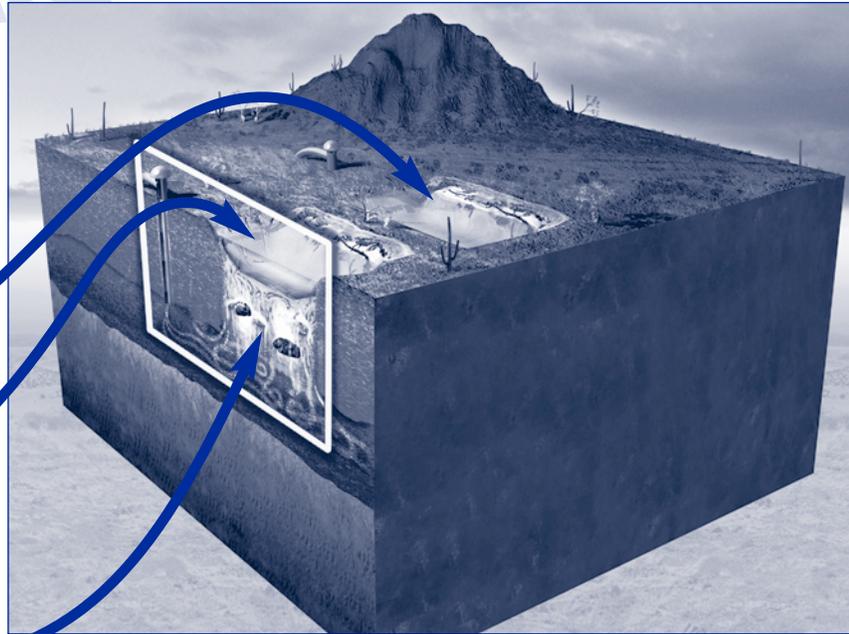
**1)** Colorado River water from the CAP canal is pumped to the 11-recharge basins at Clearwater.

**2)** Water is put into the basins in a special rotation pattern so that some are drying out while others are being filled.

**3)** The Colorado River water soaks into the earth, flowing slowly through and around underground areas of soil, rock and clay, until it reaches the water table (about 350 feet deep in Avra Valley).

**4)** Colorado River water blends slowly with the native groundwater.

**5)** Deep wells pump the naturally blended water to the surface where it is collected in a reservoir for delivery to Tucson.



## Working Together to Enhance Our Water Resources

*Continued from Front*

address one of the community's most important water issues – the management, acquisition, and use of new renewable water supplies. This new voluntary, non-profit organization would be made up of water and wastewater providers in the Tucson area.

The new organization's primary task would be to find and acquire additional water resources for its members and to facilitate the use of these water supplies. Each member agency would continue to manage its own water system and serve its own customers.

SAWUA is proposing that the governing body (Mayor and Council or Board of Directors) of each member agency could appoint the governing board of the organization. Decision-making would be by consensus and a committee comprised of the water utility directors or general managers of the member entities would advise the board. As we move forward in evaluating these ideas, Tucson Water will bring them to Tucson's Mayor and Council for further consideration. We'll keep all of you informed about this regional effort.



Tucson Water  
 P.O. Box 27210  
 Tucson, AZ 85726-7210

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## Straight Talk About Our Water by Dave Modeer



We talk a lot about renewable water resources – water that is replenished continually, like Colorado River water and wastewater effluent and the reclaimed water we create from it. Most of our groundwater is not considered renewable because it's replenished so slowly - it took thousands of years for our groundwater to build up in the water table and only about 60 years of pumping for us to drop its level as much as 250 feet.

We all know quite a bit about Colorado River water. We're using billions of gallons of it every year thanks to the Clearwater Facility and the blended water it creates. Effluent, on the other hand, has been talked about as a renewable resource, but some customers have told us they are not fully aware of Tucson Water's proposals for effluent use. Here's the straight story.

Effluent will, of course, remain very important to us as a source of Reclaimed Water. We already use about 3½ billion gallons of this treated effluent each year to irrigate golf courses, parks, and schoolyards across the region and save drinking water. Reclaimed water use will increase in the future.

Tucson Water is now beginning to study the options available to us for using the remainder of our effluent. There are a number of different possibilities including treating it to drinking water standards and recharging it to augment our

water table. In regard to this option, it's important to realize that effluent discharged from Pima County's wastewater treatment plants is already being recharged naturally into the water table in the northern reaches of the Santa Cruz River. Tucson Water's proposal would improve upon this natural process by treating the water to better than drinking water standards and then recharging it in a location where we can recover it. The community will have the opportunity to decide if we recover the resulting blend within a short time, as we do with Colorado River water at our Clearwater facility, or leave the blend in the ground for long-term storage and use in future years. We have not suggested that effluent treated to drinking water standards be added directly to our water supply without first recharging and blending it with groundwater, and have no plans to recommend that option.

There are still years of research and other work to do before we have enough information about the use of effluent to begin working with you, our customers, to make these decisions. But please be assured, we will share with you what we learn so that you will have all the information you need for all of us to make a decision together about how best to use this very valuable renewable water resource in the future.



The H2O Tucson News is produced by Tucson Water for the information of its customers. Please send questions or comments to Tucson Water News, Tucson Water, P.O. Box 27210, Tucson, AZ 85726-7210. Para recibir esta información en español, sírvase llamar al 791-4331.

