

Splash

Metro Water
Newsletter
Summer 2014

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TIMELINE SET FOR KEY WATER PROJECT

Metro Water District is planning for its future by adopting a 10-year timeline to implement its Central Arizona Project (CAP) Water Recharge, Recovery and Delivery System. The project allows for Metro's CAP water allocation to be delivered within its Metro-Main service area. This is accomplished by recovering CAP water recharged at the Avra Valley Recharge Project and then delivering it through a 10 mile transmission line to be blended with groundwater at the Herb Johnson Reservoir. Metro's CAP Water Recharge, Recovery and Delivery System (Project) is similar to Tucson Water's Clearwater Project, which has successfully recharged CAP water for 14 years and then recovered after it was blended with the groundwater in the aquifer.

In April, Metro's Board of Directors approved the timeline to move forward this Project for three reasons:

First, the Project helps Metro better manage its water resources by putting to use a renewable water supply (CAP water) to reverse the annual two feet decline in groundwater levels experienced over the last two decades. The utilization of CAP water will be economically, environmentally, and hydrologically more feasible than continued dependency on groundwater.

Second, having a 10-year schedule for the \$36.1 million Project allows for a fiscal plan that limits additional debt for the District and minimizes the financial impact to customers. The design work, land acquisitions, and securing easements and crossings for the pipeline are anticipated to be done without adding debt and could be self-financed with modest annual increases to the Water Resources Utilization Fee. This places Metro in a better financial position for when the actual construction of the Project begins.

Third, the 10-year timeline is the best workable framework for pulling together the various critical parts of the Project. The coordination and actual land acquisition is expected to take two years. The design of the Project along with the coordination of easements and crossings is expected to require four years. Construction would then begin in 2021 and take three years.

With a doable schedule for the CAP Water Recharge, Recovery and Delivery System Project, Metro can finally utilize its CAP water allocation after many years of planning and evaluation. Regular updates will be given regarding the progress of this key 10-year initiative. ■



Where does your water come from?

While working to put to use its CAP water, Metro Water continues to serve groundwater to its customers. In the Tucson region, groundwater exists in basins that are between the surrounding mountains. These basins are a few thousand to ten thousand feet deep and function like bath tubs. Or more correctly, the basins are like bath tubs full of sand because the mountains have eroded and rivers and streams have transported gravels, sands, silts, and clays (collectively called “alluvium”) into the basins. The rainfall and snow melt that flow off the mountains percolate into the basins and fill the tiny pore spaces between the grains of sediment. The two major basins in the Tucson metro area are the Tucson Basin and Avra Valley Basin.

Groundwater, although it exists beneath the ground surface, is part of the water cycle. The geologic basins beneath our feet filled with groundwater, approximately 10,000 years ago, when the climate was much wetter and would replenish what naturally flowed out of the basins. Presently, the demand for water from the basins is greater than what can be naturally replenished. Thus, since the 1940s, the level of groundwater in the basins has been declining, as we have also seen in the Metro-Main service area. Metro’s Board has recently approved a 10-year plan to mitigate that groundwater decline by bringing recovered CAP water into its service area. (For more information on the project, see article on page 1.)

The depth at which we find groundwater is called the “water table.” Wells are drilled to reach groundwater below the ground surface in order to make use of this valuable and limited resource. A well is simply a deep vertical hole in the ground that allows surrounding groundwater to flow into it. To keep the hole open, a tubular casing (much like a steel pipe) is installed in the vertical hole. To allow groundwater to flow into the casing, an engineered cylindrical screen (usually 300 – 400 feet long) is attached to the bottom of the casing. This screen also serves the purpose of filtering sand out of the water we drink.

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Summer Water Tips

Summer has arrived in Tucson. Sometimes the weather is hot and intensely dry and other days monsoon clouds gather with possible rain. Water is the main ingredient for sustaining life in the Southwest. Here are some tips to consider that will help you use water more efficiently during the summer months.

- ◇ Check your irrigation systems, timers, and sprinklers to make sure they’re working properly.
- ◇ Water plants less. Most people water established plants more than they need to, even in summer. Let the plant tell you when it needs water.
- ◇ Water deeply and less often. Water at night.
- ◇ Collect rain water with a water harvesting system.
- ◇ Fix any leaks and make necessary repairs as soon as possible to save water and money.
- ◇ Sweep your sidewalks driveways and patios with a broom rather than spraying them with water.
- ◇ Take shorter showers. Run the washing machine or dishwasher only when full.
- ◇ For more conservation ideas: www.metrowater.com ■

Where does your water come from?

(Continued from page 2)

Metro Water's wells average between 8 inches in diameter up to 20 inches in diameter with depths up to 1,000 feet. Finally, a large electric-powered pump is installed in the well to lift the water up to the surface and into the pipes that distribute water to wherever it is needed.

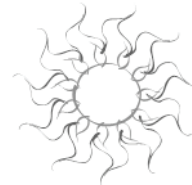
The depth to the groundwater table differs among service area and basin*:

Metro Hub	Metro Southwest - E&T Service Area	Metro Southwest - Diablo Service Area	Metro Main
53-89 feet	70-76 feet	470-509 feet	160-446 feet

*From groundwater level measurements Winter 2013-2014. All depths are feet below land surface. ■



The Magee Trail well is one of Metro Water's newest wells. Shown left, the drilling contractor (Arizona Beeman Drilling) began the process of drilling the new well, which ultimately reached 1,000 feet, double the depth of the groundwater table.



What is TDS?

Last month, you received Metro Water's annual Water Quality Report, which reported on how Metro complies with the Safe Drinking Water Act. One aspect of your water that is not required in the Water Quality Report but generates interest by customers is Total Dissolved Solids (TDS).

TDS is the measurement used for the mineral content in water in which the higher the amount, the "harder" the water. There are no health based limits for TDS in water but rather the TDS level is an aesthetic issue and contributes to the scale build-up in home water fixtures.

The TDS level varies throughout the District. In Metro-Hub, the TDS level is at 200 milligrams per liter (mg/L). In Metro-Main, 250 mg/L is the average level but it ranges throughout the service area with some areas near the Rillito Wash at 400 mg/L. In Metro Southwest, the TDS level exceeds 550 mg/L. ■



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Office Hours:
 Monday - Thursday
 7:30 - 5:30
 Friday 7:30 - Noon
metrowater.com



The Metro Water office
 will be closed on:

Independence Day
 Friday, July 4, 2014

Labor Day
 Monday, September 1, 2014

ENTRANCE RELOCATION

Our office entrance at 6265 N. La Canada Drive is being relocated due to County road improvements. Look for the blue “BUSINESS ACCESS” sign and please use caution in construction areas.

Board of Directors:

Judy Scrivener, Chair
 Dan M. Offret, Vice Chair
 Richard Byrd, Member
 Jim Doyle, Member
 Bryan Foulk, Member

Board Meetings:

Monday, June 9
 Monday, July 14
 Monday, August 11
 Monday, September 8

Board meetings are held at 6265 N. La Cañada Drive and typically start at 6:00 pm. Board meetings are held the second Monday of each month. If the second Monday is a holiday, the meeting is moved to the following Wednesday.

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