

Recycled Water — A Drought Resistant Supply

More than half of Santa Clara County's water supply originates as rain or snow in the Sierra Nevada Mountains and travels through the Sacramento-San Joaquin Delta (Delta). Environmental stresses on the Delta are threatening this critical water source and many water utilities are evaluating alternative sources that will provide a reliable, sustainable, and drought-proof supply. Recycled water is one such source. This highly treated wastewater has a wide range of nonpotable applications including irrigation, industrial, and agricultural uses.

For the past two years, SJWC has been participating in an unprecedented expansion of the recycled water distribution system within Santa Clara County. Since 1997,



SJWC has served recycled water to its customers via

a partnership with South Bay Water Recycling (SBWR). However, in planning for long range local water supply sustainability, SJWC has become the first Bay Area investor-owned water utility to own, operate, and maintain part of the recycled water distribution system. These new pipelines tie in to the SBWR network but are owned by SJWC.



Within 18 months of receiving permission from the California Public Utilities Commission, SJWC has installed more than 14 miles of recycled water pipeline. By 2015, approximately 30 miles of pipeline will be in the ground and delivering about 2,700 acre-feet per year of recycled water to more than 250 service connections. One acre-foot of water is approximately 326,000 gallons and represents enough water to serve two families of four for one year. SJWC's involvement represents the largest expansion of the SBWR system since its original construction and extends the system from 21 miles to 51 miles.

SJWC's project is divided into two phases. Phase One, which consists of three pipeline alignments, has the potential to serve more than 120 customers. More than half of these customers have signed up to receive recycled water, and 10 are already on line. Another 16 sites are under construction and 27 more have been designed and are awaiting construction. Phase Two consists of six pipeline alignments which will be constructed in 2012 and 2013. Future pipeline alignments are anticipated beyond 2015 to further reduce the demand on the potable water supply.

The system expansion is also being coordinated with surrounding water agencies to facilitate future interconnections and service to support the City of San Jose's Green Vision and the Santa Clara Valley Water District's conservation goals. SJWC's creativity and success in the region is laying the groundwork for other local utilities to undertake expansion of recycled water service and safeguard the region's increasingly precious potable water supplies.

Test Your Water Knowledge:

(answers below right)

1. A reliable water supply provides for:
a. Public health and fire fighting protection b. Economic growth c. A high quality of life d. All of the above
2. A gallon of water delivered to your home costs:
a. A third of a penny b. \$0.25 c. \$0.50 d. \$1.00
3. The monthly water bill of a SJWC customer using 15 ccfs is approximately:
a. \$720 per year b. 1% of the area's median household income c. Less than \$2 per day d. All of the above
4. If you used bottled water instead of SJWC tap water for all of your household needs (shower, irrigation, etc.), how much would you spend each month?
a. \$1,000 b. \$10,000 c. \$20,000 d. \$30,000
5. Challenges facing the water utility industry include:
a. Unreliable supplies b. Aging infrastructure c. Increasingly stringent water quality regulations d. All of the above
6. In 2011, SJWC spent approximately ___ to replace water system components such as tanks, wells, and pipelines to ensure that future generations benefit from the same access to safe and reliable drinking water we now enjoy.
a. \$60 million b. \$70 million c. \$80 million d. \$90 million
7. SJWC replaces approximately ___ miles of water pipelines annually to ensure the continued delivery of high quality and reliable water service.
a. 15 b. 20 c. 25 d. 30
8. To provide enough water for all of SJWC's customers for one year, you would need approximately how many gallons?
a. 40 billion b. 45 billion c. 50 billion d. 55 billion