

# CONNECTIONS

## *Recycled Water Project Update*

Redwood City Recycled Water Project

Winter 2009

### Project Participation: A Win-Win for Everyone

We applaud as good stewards of the environment and our community all the existing and new customers who participate in our Recycled Water Project. Every gallon of recycled water used for irrigation or industrial purposes saves one gallon of drinking water for the community's use inside our homes, hospitals, and schools. In the event of a drought, those gallons of drinking water will be even more important to all of us who live and work in Redwood City — for today, and for generations to come.



Landscaping customers throughout the Redwood Shores enjoy the benefits of recycled water.

#### Dependable Water Supply

Recycled water customers can rely on a dependable, consistent recycled water supply for their operations throughout the year. Landscape irrigators will be able to sustain healthy landscaping, even when water shortages force others to cut back due to drought conditions and the increasingly higher costs of drinking water.

#### Green Lawn, Lower Water Bill

Recycled water customers save money. Participating existing customers are rewarded for voluntarily committing to the use of recycled water in lieu of drinking water. Landscape irrigators receive 25 percent off their irrigation water bills and industrial water users save 40 percent. The Project pays for all of the costs of retrofitting existing landscape irrigation systems. Industrial customers receive a larger discount to reflect their investment in on-site system upgrades needed to utilize recycled water for their business operations.

Using recycled water also benefits the environment. The San Francisco Bay is highly sensitive to the discharge of any fresh water — even clean or highly treated wastewater. By reusing treated water, we greatly reduce the amount that the South Bayside System Authority will discharge to the San Francisco Bay.

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Recycled water reduces landscape irrigation costs by 25 percent.

### Phase One to Finish Within Budget

Phase One of the Redwood City Recycled Water Project is nearing completion and is expected to be completed within budget. With the final piece of the distribution system out to bid, project officials are hopeful that the final cost will come in under the \$72 million estimate, which includes retrofit bid packages not yet out to bid. Project team members have contained costs by bidding construction projects in a favorable climate and pursuing and obtaining grant funding.

The project consists of tertiary treatment facilities, two 2.2-million gallon storage tanks, a distribution pump station and distribution pipelines in the Redwood Shores, Greater Bayfront and Seaport Areas.

Construction began in 2005 with treatment, storage and pumping facilities and the distribution system in Redwood Shores. The majority of that section of the project is complete and operational. The final section of the Redwood Shores distribution system, adding landscape irrigation for the Bayshore Technology Park, will be complete in spring of 2009.

It is expected that the remaining sections of the Bayfront and Seaport areas' distribution pipelines will be completed this year. Funding for the Recycled Water Project has come from city-issued bonds and state grants. The city is also pursuing federal funding.





## How Your HOA Can Participate

Home Owners Associations (HOA) in the Redwood Shores area have been inquiring about how they can participate in Redwood City's Recycled Water program for landscape irrigation use. Here are some key things your HOA Board will need to consider if it is interested:

- 1) Your HOA Board would need to submit an application for recycled water service. The commitment to use recycled water is for 10 years because of the investment involved in retrofitting sites. Customers receive a 25 percent savings off the potable (drinking water) rate, which goes into effect once the site is connected to the recycled water system.
- 2) Your HOA Board should be aware that the state Regional Water Quality Control Board and the California Department of Public Health (DPH) will make the final decision about recycled water use at your site once an application has been filed and specific project drawings are submitted for their review. Our project team will make these drawings and submit them to the Regional Board and DPH at no cost to the HOA (as long as funds are available to do so).
- 3) In considering the use of recycled Water, your HOA Board and membership are required to follow the guidelines of your CC&Rs. The city respects those guidelines and will honor the decision-making process of your HOA and cannot intervene in the process outlined in your CC&Rs.

If your HOA Board is considering the use of recycled water to meet your facility's landscape irrigation needs, contact Mark Millan at (650) 743-5759 to receive an informational packet and an application.

# Bay Area Recycled Water Coalition

## An Innovative Regional Water Management Approach

A regional partnership of Bay Area water management agencies was formed to secure federal funding for a variety of recycled water projects under Title XVI of the 1992 Reclamation Wastewater and Groundwater Study & Facilities Act. The Bay Area Recycled Water Coalition (BARWC), a group of 17 Bay Area water and wastewater agencies, studied opportunities to use recycled treated wastewater for beneficial uses.

The Bay Area Recycled Water Master Plan, completed in 1999, identified opportunities to use 125,000 acre-feet per year (AF/yr) of recycled water by 2010, and 240,000 AF/yr by 2025. An acre-foot of water is the volume of water required to cover an acre of land, one foot deep. It is equal to 325,851 gallons of water. In California, the typical household uses approximately half an acre-foot of water per year.

Since the Master Plan was completed, BARWC agencies have invested nearly

\$300 million of local funds in water recycling projects, and seven new projects are ready to be built. Because federal investment in these projects is highly leveraged, locally managed projects will help ensure the security of water supplies in the Western United States for years to come.

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reuse provides a tool that can effectively address the challenges of growth, climate change, environmental degradation, and energy usage and provide a safe and reliable water supply. BARWC represents a green solution to water supply issues. Coalition projects include more than \$680 million worth of recycled water projects. Of these, more than \$150 million worth of new projects will be ready to start construction within 90 days if funding is made available from President Obama's economic stimulus package.



Federal funds are contributing to the completion of Phase I of the Recycled Water Project.

# Drought Watch: Doing More with Less

## Statewide Drought Persists into Third Year

California is entering the third year of a drought that underscores the need for water conservation and the importance of water recycling. The Redwood City Recycled Water Project is laying the groundwork for a system that prepares the city for future droughts and the very likely prospect of water shortages throughout the state.

## Rainfall Well Below Average

In the spring of 2008, Gov. Arnold Schwarzenegger declared the first statewide drought in 17 years. The declaration followed the driest spring on record and two years of below-normal precipitation. So far this year, rainfall statewide is 90 percent of average and snowpack in the Sierra Nevada is at 80 percent of average. Redwood City receives its drinking water from the Hetch Hetchy system, which relies on snowmelt from the Sierras and is operated by the San Francisco Public Utilities Commission (SFPUC).



The Hetch Hetchy Reservoir in the Sierra Nevada is the source of our drinking water from the SFPUC. The reservoir relies on snow runoff within the Tuolumne River watershed.

## Are We Really in a drought?

State water officials believe that even a normal rainfall year won't offset two critically dry years in California. In addition to reduced rainfall, recent legal rulings that limit water pumping from the Sacramento-San Joaquin Delta will reduce water deliveries statewide and could have an impact on future supplies from the Hetch Hetchy system, which provides water to San Francisco and the Peninsula. The SFPUC is urging all of its customers to voluntarily reduce usage by 10 percent.

## Less Snow Means Less Drinking Water

According to the California Department of Water Resources (DWR), snowpack in the Sierra Nevada as of January 7, 2009 was just 80 percent of average. Snowpack is critical because the Hetch Hetchy system relies on runoff from snowmelt to fill its reservoirs. Runoff throughout the state was at just 40 percent of average, according to DWR reports.

*"The real message is,  
we need to plan and prepare  
as if 2009 will be dry."*

Jeanine Johnson, interstate resources manager  
for the CA. Dept. of Water Resources

Storage in reservoirs throughout the state was at 70 percent of average, according to the DWR. Some water districts have already imposed water restrictions and more are anticipated.

## Conservation is a Key Component

City officials continue to encourage conservation as a means of reducing demands on our limited drinking water supply. Conservation is one of the key components of the city's long-term strategy to ensure a reliable and affordable long-term water supply for our community. The other key component is recycled water.

## Recycled Water is a Drought-Proof Source

Recycled water is a drought-proof source of water that can serve a variety of uses, including landscape irrigation and industrial uses. Like hundreds of other cities in California, Redwood City is struggling to meet the demand for water as the regional supplies reach their limit. Recycling water is a proven, safe method of producing a dependable supplemental water source.

## Redwood City Prepares for Possible Water Rationing

As we enter into the third year of a statewide drought, Redwood City is preparing for the San Francisco Public Utilities Commission (the City's water supplier) to reduce the water delivery amounts to its wholesale customers. If this reduction in water supplies occurs, it will likely lead to mandatory water rationing beginning in spring/summer 2009 for our potable water customers. Recycled water customers, however, will not be affected.

In preparation for potential water cutbacks, Redwood City implemented the Water Use Allocation Program (WAP). This program provides a fair and equitable way to distribute water in the event of mandatory cutbacks, taking into account individual customer needs and conservation efforts. Factors such as the number of people in a home, amount and type of landscape, and other household needs will be used to calculate your water allocation.

Because of this, Redwood City is asking its water customers to take a few minutes to fill out an online water-use survey at [www.redwoodcity.org/wap](http://www.redwoodcity.org/wap). Your unique water allocation will be calculated from the information you provide. **A default allocation will be issued if a survey is not provided to us. The default value may not represent your actual water use needs, and may result in severe impacts to your water bill if and when the City must allocate water.** If you have questions, or would like more information please call the Water Conservation Hotline at 650-780-7436 or visit [redwoodcity.org/conservation](http://redwoodcity.org/conservation).

## Recycled Water Program Wins Awards

The WateReuse Association awarded its national 2007 Large Project of the Year Award to the Redwood City Recycled Water Project. This prestigious Project of the Year Award recognizes successful recycled water projects that have exhibited effective management practices, found innovative uses for recycled water, and established noteworthy public/private partnerships. For information about WateReuse, visit [www.watereuse.org](http://www.watereuse.org).

## Project Team Member Spotlight: Courtney Rubin, Recycled Water Specialist



When recycled water customers or members of the public come in contact with the Project Team, the person they most often see is Courtney Rubin,

the Recycled Water Specialist. Courtney joined the Recycled Water Project team in October of 2007 and prior to that spent three years in the Redwood City Water Conservation Division. She has a variety of duties, but they all entail attention to customer service and addressing customer concerns and issues.

"We make sure that recycled water is available to our customers and that the system is working properly," said Courtney. During the course of her work, she consults with water customers, city maintenance workers and the general public. "I love being able to interact with different types of people," she said. "I have things to teach and so do they and that has been a great part of the project."

In addition to serving customers, Courtney organizes trainings for site supervisors of recycled water use locations. She is a

certified Cross Connection and Backflow Device Specialist and works with customers to ensure the recycled and potable water supplies remain separate.

Courtney is a graduate of UC Santa Cruz where she earned a B.A. in Water Resources. She became acquainted with the technical side of water conservation during her time in the city's Water Conservation Division, and that skill has served her well with the Recycled Water Team. "Being able to convey technical information in a simple and concise way is a useful skill," she said. "I have found that people who work in this community are very open to new ideas and I am excited to see how they are expanding their green programs and including water efficiency and recycled water."

Making the best use of the city's recycled water "is completely necessary in order for the city to be sustainable and to grow," said Courtney. "We are going to need to find other water resources and one of them is definitely recycled water. It is really innovative the way the city is utilizing this resource." Given the future of water supplies in the Bay Area and throughout the state, "We are really putting ourselves in the right spot for the future."

*"Project Participation: A Win-Win for Everyone" continued from page 1...*

### Seaport Customers Next

Customers in the Seaport area, who are next in line to start receiving recycled water, will be pleased to hear that the project recently received its permits from Caltrans to build the final segment of the project. This pipeline section will be built on the side of the Highway 101 bridge that traverses Redwood Creek and will connect the pipeline from the Redwood Shores section to the Seaport pipeline. The final section is currently out to bid and will be constructed in 2009.

Currently, the project delivers recycled water to 23 sites in the Redwood Shores, and an additional 34 customers have completed applications and want to use recycled water. Since the project began producing water, a total of 175 million

gallons of recycled water have been delivered, water that conserves the city's limited drinking water supplies. As Earth's fresh water supply remains limited, recycled water use will continue to grow throughout California and around the world. In Redwood City we will always be looking for other practical applications for recycled water. The system has been designed with flexibility that can accommodate new opportunities and customers as interest in this valuable resource grows. Additionally, we remain steadfastly committed to the aggressive and innovative water conservation efforts in our community, and beyond.

For more information visit [www.RedwoodCity.org/recycledwater](http://www.RedwoodCity.org/recycledwater).

## City Provides Training on Safe Use of Recycled Water

As a commitment to safety, the Redwood City Recycled Water Project conducts free trainings twice a year on the safe and proper use of recycled water. The city requires that all recycled water customers have a designated site supervisor who attends this training and who is certified to manage recycled water use at their site.

The third session of these Site Supervisor Trainings was held on Nov. 21, 2008. It was well attended, and ten new site supervisors obtained their certification. Eight site supervisors who were already certified returned for a refresher. The city's training material is extensive, covering a wide variety of recycled water use and history throughout the world. The sessions cover treatment processes and general attributes of recycled water, cross connection control, Site Supervisor responsibilities and maintenance requirements.

New to the training was a presentation on Soil Salt Management by Water Quality Consultant Bahman Sheikh. Bahman spoke on the importance of carefully managing water application to avoid salt buildup in soils. Salt buildup can sometimes occur because recycled water has a higher salt content than drinking water. With our proximity to the bay, we can experience much higher salt content in the soil than inland.

Trainings are open to all persons working with a recycled water system. The next training will be held in late Spring of 2009 and will be noticed on the Project Website: [www.redwoodcity.org/recycledwater](http://www.redwoodcity.org/recycledwater).



Project Information Resources:  
(650) 743-5759

Connect@DataInstincts.com  
[www.RedwoodCity.org/RecycledWater](http://www.RedwoodCity.org/RecycledWater)