

## Pure News: Issue 9



Welcome to Pure News, a newsletter to keep you informed about the latest happenings with the City of San Diego's Water Purification Demonstration Project.

## City Council Unanimously Adopts Project Report

In the past few months, the Water Purification Demonstration Project team has made great strides towards making a full-scale water purification project a reality for San Diego. The team presented the Project Report, which includes project testing results and cost estimates, before the City Council's Natural Resources and Culture Committee (NR&C), the Independent Rates Oversight Committee (IROC) and the San Diego City Council.

Prior to presenting the Project Report to NR&C on March 20, a press conference set the stage for the introduction of the project report. Mayor Bob Filner, Council President Todd Gloria, Councilmember and



Mayor Filner speaks to the media about the Demonstration Project on March 20

NR&C chair David Alvarez, Councilmember Lorie Zapf, City staff and members of the Water Reliability Coalition, a broad-based organization of groups in favor of securing a local water supply for San Diego, all spoke about the benefits of the project for San Diego's water supply future.

During the NR&C meeting, the Committee expressed strong support for the Demonstration Project and moving forward with potable reuse in San Diego. (Potable reuse is the term that refers to adding purified water to a drinking water source.) Committee members asked that the Public Utilities Department not only continue to explore indirect potable reuse (the purified water would be blended with the raw or untreated water in San Vicente Reservoir), but also

explore direct potable reuse (the purified water would be conveyed to a water treatment plant without first being retained in a reservoir). By unanimous vote the NR&C Committee members recommended that the full City Council adopt the Project Report.

On April 15, Demonstration Project findings were presented to IROC, an advisory board for the Mayor and City Council about rates and expenditures in the City's Public Utilities Department. After discussing the report, the committee voted unanimously to accept the project report and asked the department to update IROC on the project's progress at later meetings.

The Project Report was presented to the full City Council on April 23. Led by Councilmember Alvarez, a long-time champion of the project, individual councilmembers joined him in expressing their support for potable reuse as a sustainable, reliable local water supply for San Diego. When the Council took public testimony, members of the Independent Advisory Panel and the Water Reliability Coalition voiced their support for developing potable reuse in San Diego. Again, the vote was unanimous, with all eight councilmembers voting in favor of adopting the Project Report and moving toward implementation of a full-scale water purification facility in San Diego. The Council directed staff to complete the following tasks:

*(Continued on page 3)*

## Report Highlights Project Findings

The Water Purification Demonstration Project, which examined the use of water purification technology on recycled water in San Diego, has proven that purified water can be produced and safely added to the San Vicente Reservoir as part of a full-scale water purification project. The project was under budget while still completing all of the components set forth by the City Council directive in 2007. The City released the Water Purification Demonstration Project Report in March 2013, detailing the following findings from each of the project components:



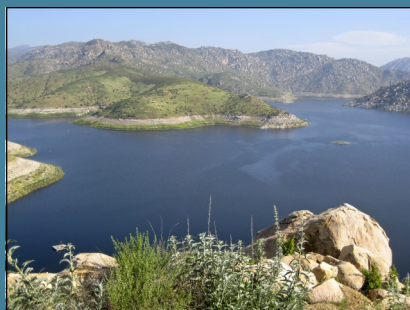
the Point Loma Wastewater Treatment Plant (Point Loma), thus reducing the extent and complexity of upgrades needed at Point Loma. Avoided wastewater costs also include those associated with the construction of a 7-million-gallon storage facility which would manage peak wet-weather flows to Point Loma. Energy savings would also result since less flow would have to be pumped to Point Loma. The total of these avoided costs and savings are estimated to be about \$1,000 per acre foot.

### Advanced Water Purification Facility

A demonstration-scale Advanced Water Purification Facility operated for 12 months and produced water that met all state and federal drinking water standards.

### San Vicente Reservoir Study

Studies of San Vicente Reservoir determined the reservoir provides an environmental barrier that satisfies anticipated regulatory requirements.



### Regulatory Coordination

Staff proposed a regulatory framework for a reservoir augmentation project to regulators from the California Department of Public Health and Regional Water Quality Control Board. Both regulators issued conceptual approval of the proposed approach for reservoir augmentation.

### Energy & Cost Analysis

Energy and cost analyses found that the energy use and cost of a full-scale water purification project would be comparable to that of imported water. The cost to produce and convey 15 million gallons of purified water to San Vicente Reservoir would be approximately \$2,000 per acre foot.

A full-scale purification project would lead to avoided wastewater costs by reducing the amount of flow to

### Education & Outreach

Over the years, staff has shared the science of water purification with the public through a range of activities. Public opinion research found San Diegans' favorability towards adding purified water to the drinking water supply has increased from 26 percent in 2004 to 73 percent in 2012.



All of these findings are laid out in further detail in the full report, available at [www.PureWaterSD.org/projectreports](http://www.PureWaterSD.org/projectreports). If you would like to review a hard copy of the report, please email [purewatersd@sandiego.gov](mailto:purewatersd@sandiego.gov) or call (619) 533-7572 to schedule an appointment at our downtown office.

### Project Director Honored



The Association of California Water Agencies honored Project Director Marsi A. Steirer with the 2013 Excellence in Water Leadership Award on May 8 for her remarkable and visible contribution to the enhancement, protection and development of water resources in California.

Congratulations, Marsi!

## City Council Unanimously Adopts Project Report (continued)

- Determine a preferred implementation plan and schedule for a full-scale project
- Develop a strategy for allocating water purification costs among local water and wastewater funding sources
- Develop a financing plan for a full-scale project
- Monitor the development of direct potable reuse regulations in California
- Report to NR&C on the progress of each of the above items within 90 days of the City Council hearing
- Join WateReuse Foundation's Potable Reuse Initiative
- Use remaining project funds to initiate work on the next steps as outlined below

Guided by the resolution adopted by the City Council, the project team is now working on the next steps:

- Continuing Advanced Water Purification Facility operations
- Continuing outreach efforts, including tours and speakers bureau presentations
- Determining contracting modes
- Refining the pipeline alignment
- Coordinating with Point Loma 2015 Permit Renewal and the Recycled Water Study actions

The team will present the progress on the various tasks at an NR&C Committee meeting in July.

Having the Project Report receive the unanimous support of NR&C, IROC and City Council marks a major milestone for water purification in San Diego. The Demonstration Project team is grateful to the many dedicated individuals who expressed their support for potable reuse over the years. This outcome would not have been possible without them.

## Operation and Testing Continues at the AWP Facility

Although the Demonstration Project Report is complete and has been presented to City Council, operation of the Advanced Water Purification (AWP) Facility is ongoing. Staff are now using the demonstration facility to test alternative treatment processes and monitoring techniques that could provide additional health and safety barrier options for water purification projects. These studies will also test treatment options that could lower the cost of full-scale water purification facilities. San Diego's AWP Facility is ideal for these studies since the equipment is already in place and the water produced during the testing can be returned to the recycled water system for irrigation and industrial purposes.

Operation and testing of the AWP Facility from August 2011 to July 2012 proved the treatment process – microfiltration/ultrafiltration, reverse osmosis, and ultraviolet disinfection/advanced

oxidation – produces purified water that meets or exceeds all state and federal drinking water standards. Follow-on operation and testing of the



AWP Facility will evaluate additional treatment processes including ozone and biologically activated carbon, as well as the latest water quality monitoring instrumentation and response systems. This extended testing is funded by state Proposition 50 and Proposition 84 grants.

As part of this extended testing, the City will draw upon knowledge gained from other water purification projects in the United States, Singapore, South Africa and Australia. Public health, water treatment and water quality experts from across the world

will convene to establish an appropriate framework for the AWP Facility's demonstration of additional water purification protection barriers. These cutting-edge studies will advance future water purification endeavors in communities around the globe.

## Celebrating Sustainability at Earth Day Events

April 22 was Earth Day, a day to celebrate environmental protection and sustainability. Therefore, it was fitting that the Water Purification Demonstration Project, a water sustainability and reliability project, was promoted at a number of environmental events in celebration of Earth Day.

For several years, the Demonstration Project has participated in the San Diego EarthFair in Balboa Park, the largest free earth fair in the world and one that attracts around 60,000 visitors annually. This year at the EarthFair, Demonstration Project staff engaged hundreds of booth visitors by discussing how water purification fits into San Diego's water supply portfolio and by encouraging local residents to tour the AWP Facility.

The team also participated in employee Earth Day events at Genomics Institute of the Novartis Research Foundation on April 22 and Qualcomm on April 24. At both lunchtime events, employees visited various "green" booths at their work campuses.

The City of San Diego is committed to sustaining our precious water resources and using (and reusing) the water we already have. A full-scale water purification

project would not only provide a safe and secure local water supply for San Diegans, but it also offers a host of environmental benefits. For example, it would make more use of recycled water than using recycled water only for irrigation demands, which are fluctuating and seasonal. Also, with more water being reused, less wastewater would be sent to the Point Loma

Wastewater Treatment Plant and subsequently discharged into the ocean. Having a new local source of drinking water would also decrease reliance on imported water, which requires a great deal of energy as water is pumped from hundreds of miles away from San Diego.

Water reuse is not only a necessity for San Diego, it is an environmentally friendly way to develop a new local water supply. To learn more about the benefits of the project, be sure to visit the Demonstration Project at upcoming

events around San Diego or visit [www.purewatersd.org](http://www.purewatersd.org). For more in-depth project information, tour the project's AWP Facility or have a speaker visit your group or organization. Visit [www.purewatersd.org/tours.shtml](http://www.purewatersd.org/tours.shtml) to register for a tour, or email [purewatersd@sandiego.gov](mailto:purewatersd@sandiego.gov) or call (619)533-6638 to request a presentation for your group or organization.



 @PureWaterSD



### Get the latest online

For our smartphone-savvy readers, use your barcode-scanning app of choice to scan the quick response (QR) barcodes to the left and right. You'll be an official Demonstration Project fan in no time!

Not receiving email updates from the Demonstration Project? Sign up at [www.purewatersd.org](http://www.purewatersd.org) or email [purewatersd@sandiego.gov](mailto:purewatersd@sandiego.gov).

 SanDiegoWPDP



To schedule a presentation for your organization, email [purewatersd@sandiego.gov](mailto:purewatersd@sandiego.gov) or call (619) 533-6638.

Visit [www.purewatersd.org/tours.shtml](http://www.purewatersd.org/tours.shtml) to sign up for an AWP Facility tour.



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