

Our Mission

The San Diego Chapter of the WaterReuse Association provides a forum for the exchange of information to promote the beneficial use of recycled water in the San Diego region.

SD Chapter Honors Local Science Fair Student Winners

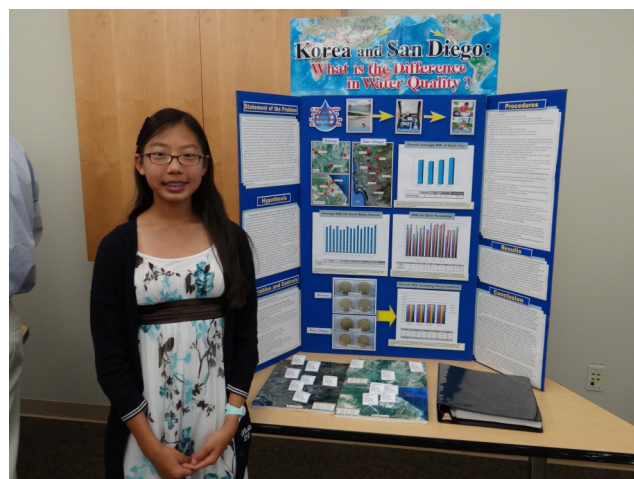
The San Diego Chapter of the WaterReuse Association presented awards and cash prizes to local students who participated in the 59th Annual Greater San Diego Science and Engineering Fair (GSDSEF) at the Balboa Park Activity Center. The award winning students presented extraordinary science projects related to recycled water and water quality to the Chapter's seven volunteer judges: Karen Svet, Maria Mariscal, Jamie Fagnant, Mike Wykosky, Emily Davis, Harold Bailey, and Scott Lacy. The projects were judged on creativity, scientific thought, thoroughness, skill, and clarity.

Hersh Gupta, a ninth grader from Torrey Pines High School, won First Place (\$150) in the Senior Division for his project "Photocatalytic Water



Hersh Gupta of Torrey Pines High School won the Chapter's First Place award in the Senior Division at for Photocatalytic Water Purification.

Purification." Hersh built a tri-step filtration system that included slow sand filtration, a titanium dioxide filtration plate utilizing the material's photocatalytic properties, and a back-up electrolysis system to purify water from Lake Miramar and Mission Bay.



Suyeon Ju of Marshall Middle School won the Chapter's First Place award in the Junior Division for differences in water quality in Korea and San Diego.

Suyeon Ju, an eighth grader from Marshall Middle School, won First Place (\$150) in the Junior Division for her project "Korea and San Diego: What is the Difference in Water Quality?" Suyeon collected and tested water samples from fourteen sources in three cities: Gangneung and Seoul, South Korea and San Diego, California. Once the samples were tested and the results

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Meeting Announcements

NEXT MEETING:

August 14, 2013 9:00am-11:00am
 Location: Encina Wastewater Authority
 6200 Avenida Encina
 Carlsbad, CA 92011

OCTOBER MEETING:

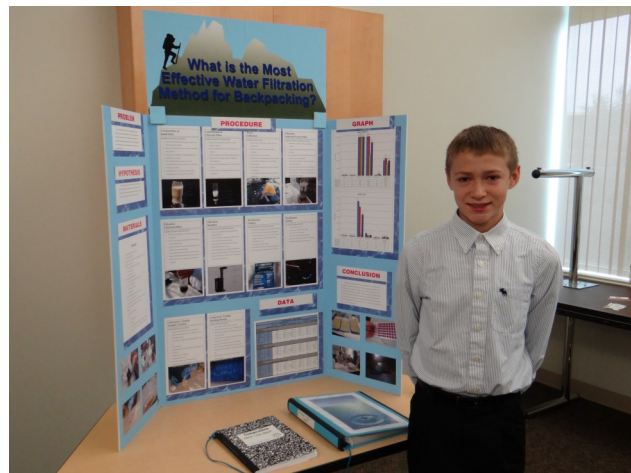
October 9, 2013 9:00am-11:00am
 Location: TBA

SD Chapter Honors Local Science Fair Student Winners Continued

were analyzed, Suyeon determined an overall water quality index for each city. As Suyeon expected, the water quality indexes of the three cities were very comparable since San Diego's index was 81, Gangneung's was 80, and Seoul's was 76.

David Pfeifer, a seventh grader from Nazareth School, won Second Place (\$100) in the Junior Division for his project "What is the Most Effective Filtration Method for Backpacking?" While going on long hiking trips with his Boy Scout Troop, David realized that drinkable water is not readily available in nature and sought to determine the best method for treating non-potable water. The methods David tested were iodine tablets, UV light, and boiling the water. David found that boiling the water was the most effective treatment method, followed by the iodine tablets and then UV light.

Elmer Alex, SD Chapter President, presented Hersh, Suyeon, and David with an award and cash prize at the May 8, 2013 Chapter meeting held at the San Diego County Water Authority. The students, who were each joined by very proud family members, had the opportunity to present and discuss their project display boards with Chapter members prior to the meeting.



David Pfeifer of Nazareth School won the Chapter's Second Place award in the Junior Division for his project on effective filtration methods during backpacking.

For the past 59 years, the GSDSEF has promoted scientific literacy and interest in the fields of science and engineering to the students of San Diego and Imperial Counties. Each year over 100 professional organizations, including WaterReuse, participate in the judging. If you are interested in judging next year, please contact Mike Wykosky at mwykosky@rickengineering.com.

*- Article contributed by Mike Wykosky,
Rick Engineering
WaterReuse SD Director of Public Outreach*

Look for these Upcoming WaterReuse Events!

WaterReuse Association has quite a few industry events over the next few months. Event dates and registration information is provided below:

28th Annual WaterReuse Symposium

September 15-18, 2013

Denver Marriott City Center, Denver, CO

Deadline for Advanced Registration is August 30th, 2013. Register at <https://www.watereuse.org/symposium28/registration>

Advanced Water Recycling Treatment Technology Workshop

October 18, 2013

Orange County Water District, Fountain Valley, CA

For more information on workshop agenda and to register for event go to <http://www.watereuse.org/conferences/california/advance-treatment>

Direct Potable Reuse Specialty Conference

November 7-8, 2013

Newport Beach Marriott Hotel & Spa, Newport Beach, CA

Information on this event can be found at <http://www.watereuse.org/conferences/direct-potable>

Industrial Water Reuse Specialty Conference

December 9-10, 2013

Westin Long Beach Hotel, Long Beach, CA

For information about this event go to <http://www.watereuse.org/conferences/direct-potable>

2014 WaterReuse California Annual Conference

March 16-18, 2013

Newport Beach Marriott Hotel & Spa, Newport Beach, CA

More information to follow

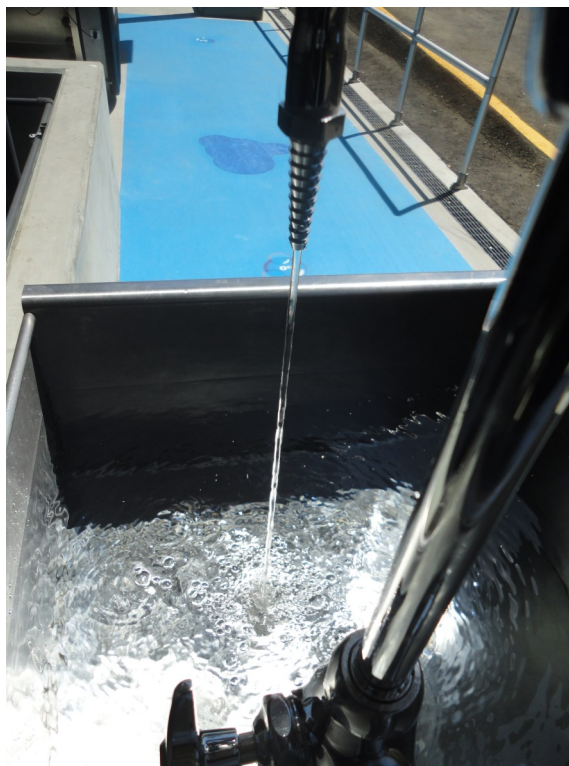
Potable Reuse Feasible for San Diego!

After a one-year testing period, the City of San Diego has concluded that purifying recycled water and adding it to a local reservoir is a feasible option for supplementing the City's limited drinking water supplies. In April 2013, the City Council unanimously adopted the report detailing these findings. San Diego is now undertaking the next steps towards making potable reuse a reality.

From 2009 to 2012, the Water Purification Demonstration Project examined the feasibility of purifying recycled water to augment water supplies in San Vicente Reservoir. The project included the installation and operation of a one-million-gallon-a-day Advanced Water Purification (AWP) Facility, a study of San Vicente Reservoir, regulatory coordination, an energy and cost analysis, and a public outreach and education program.

The City found that the AWP Facility, which purified recycled (or tertiary-treated) water using membrane filtration, reverse osmosis and ultraviolet disinfection, produced water that met all federal and state drinking water regulations and was similar in quality to distilled water. Additionally, the reservoir study determined San Vicente Reservoir provides an environmental barrier that satisfies anticipated regulatory requirements. The California Department of Public Health and Regional Water Quality Control Board, key regulators for the project, provided conceptual approval for a potable reuse project that could augment San Vicente Reservoir.

In ten years, the energy use and cost of a potable reuse 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 every day would be approximately \$2,000 per acre foot; however, there would be additional cost savings by reducing the amount of wastewater sent to the Point Loma Wastewater Treatment Plant. With less wastewater being sent to Point Loma, upgrades to the treatment plant would be minimized and the avoided cost savings are estimated to be about \$1,000 per acre-foot.



The AWP Facility purifies recycled (tertiary-treated) water using membrane filtration, reverse osmosis, and ultraviolet disinfection producing water that meets all federal and state water regulations.

Despite a history of negative perception towards potable reuse in San Diego, local public opinion polls have noted a dramatic increase in recent years in acceptance of purifying recycled water to supplement drinking water supplies. Tours and presentations remain available in order to inform as many San Diegans as possible about potable reuse.

To view the project report, visit www.PureWaterSD.org/projectreports. To review a hard copy of the report, please email purewatersd@sandiego.gov or call (619) 533-7572 to schedule an appointment at our downtown offices. For more information, including to register for a tour of the AWP Facility or to request a presentation, visit www.purewatersd.org or email purewatersd@sandiego.gov.

*- By Marsi Steirer, Water Purification Demonstration
Project Director
City of San Diego, Public Utilities Department*

GOT NEWS??

For more information on submitting articles please email Mike Metts at mmetts@dudek.com or Lisa Knox at lknox@dudek.com

Recycled Water Site Supervisor Certification Training

The City of San Diego • Public Utilities Department

Class Information:

Thurs. June 6, 2013
Thurs. July 18, 2013
Thurs. Aug. 29, 2013
Thurs. Oct. 10, 2013
Thurs. Nov. 21, 2013

8:00 a.m. – 12:00 p.m.
City of San Diego
Public Utilities Dept.
Training Center
5510 Kiowa Drive
La Mesa, CA 91942

Cost:

\$60 per person
No on-site registration
No refunds
Payable by check only
Checks payable to:
"City Treasurer"

Enrollment deadline:

Ten days prior to start
of class or when class
limit is reached

*Send registration form
and payment to:*

Account Clerk
Public Utilities Department
5510 Kiowa Drive
La Mesa CA 91942
MS 43A



This half-day course is designed to provide recycled water users in the state of California with the necessary information required to become fluent in the operational practices of recycled water. The \$60 registration fee includes learning materials and a supervisor identification. Course objectives include:

- Roles and responsibilities of a Site Supervisor at a recycled water use site.
- Identifying potential and direct cross-connections and learning appropriate preventative measures.
- Practicing appropriate techniques for the safe and efficient use of recycled water.

Bi-lingual staff will be on site to address questions related to Roles and Responsibilities relevant to participants. Testing materials are also available in Spanish.



The Public Utilities Department is authorized by IACET to offer 4 CEUs for this program.

Recycled Water Site Supervisor Registration Form

First Name _____
Last Name (will appear on the certification card) _____
Organization/Business Name _____
Street Address _____
City, State, Zip _____
Phone _____

Email _____
Class Date Requested – First Choice _____
Class Date Requested – Second Choice _____

☐ CEUs Requested

For more information, please contact:
Desmond Stecher
619.668.2090
dstecher@sandiego.gov

For more information about our local section please visit
www.watereuse.org/sections/California/sandiego

Our Members

Membership forms are available at www.watereuse.org/sections/california/sandiego/membership

ARCADIS—Malcom Pirnie	Mellano & Company
Atkins (formerly PBS&J)	Olivenhain Municipal Water District
Bailey Environmental Associates, LLC	Otay Water District
Black & Veatch Corporation	Padre Dam Municipal Water District
Brown & Caldwell	RBF Consulting, A Baker Company
Carollo Engineers	RMC Water & Environment
CDM Smith	San Diego County Water Authority
Chambers Group	San Diego Golf Course Superintendent's Association
City of Encinitas	San Dieguito Water District
City of Escondido	San Elijo Joint Powers Authority
City of Poway	Santa Fe Irrigation District
City of San Diego	Separation Processes, Inc.
City of Vista	Spears Manufacturing Co.
Coombs-Hopkins	Surfrider Foundation
Dudek	TRG & Associates
D N Tanks formerly DYK Incorporated	Trussell Technologies
Fallbrook Public Utility District	Vallecitos Water District
GHD	Valley Center Municipal Water District
Habitat Restoration Sciences	Water Conservation Technology International
Helix Water District	
J-Power USA	
Infrastructure Engineering Corporation	
KEH & Associates	
Kennedy/Jenks Consultants	
Katz & Associates	

WateReuse Officers

Elmer Alex, PE	<i>President</i>	(760) 726-1340	Mike Thornton, PE	<i>Trustee to WateReuse California</i>	(760) 753-6203
Jack Bebee, PE	<i>President-Elect</i>	(760) 728-1125	Mike Wykosky, PE	<i>Director of Public Relations & Membership Outreach</i>	(619) 291-0707
Chris Trees, PE	<i>Treasurer</i>	(760) 753-6203	Mike Metts, PE	<i>Editor-in-Chief of Chapter Newsletter</i>	(760) 479-4111
Jamie Fagnant, PE	<i>Secretary</i>	(858) 413-2400			
Toby Roy, PE	<i>Past President</i>	(858) 522-6743			

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www.watereuse.org