Orange County Water District Recognized as ‘Utility of the Future Today’

The Orange County Water District (OCWD; the District) has been honored with the designation of Utility of the Future Today, which celebrates the achievements of water utilities that transform from the traditional wastewater treatment system to a resource recovery center and lead in the overall sustainability and resilience of the communities they serve.

Utility of the Future Today was launched in 2016 by the National Association of Clean Water Agencies (NACWA), the Water Environment Federation (WEF), The Water Research Foundation (WRF) and the WateReuse Association, with input from the U.S. Environmental Protection Agency (EPA).

“The Orange County Water District is extremely proud of this new designation,” said OCWD President Vicente Sarmiento. “Our agency has pioneered groundwater management for more than 80 years and water reuse for nearly 40 years. OCWD’s Board of Directors and staff take on the water challenges of today and prepare to meet the region’s water demands for generations to come. Solid science and state-of-the-art technologies guide our decisions.”

To meet the challenges of groundwater depletion, seawater intrusion from the Pacific Ocean, and unreliable surface water supplies, OCWD, with the Orange County Sanitation District, created the Groundwater Replenishment System (GWRS), which came online in 2008. It is the world’s largest advanced water purification project of its kind — purifying wastewater and providing 100 million gallons of near-distilled quality water each day. The GWRS is considered the gold standard for both indirect and direct potable reuse projects and is replicated in several U.S. cities, in Singapore and in Australia.

According to the awarding agencies, there are 43 utilities recognized this year that recover resources from wastewater, engage in their community, form unique partnerships, and build an internal culture of innovation. A total of 118 utilities have been recognized since the program started.

“Each of the Utility of the Future Today honorees represent a transformational approach to utility management that results in a ripple effect of benefits,” said WEF Executive Director Eileen O’Neill. “We are delighted to celebrate their impact and proud to recognize their leadership in water sector innovation.”
Arizona State University Regents Professor Paul Westerhoff has been named the 2019 Clarke Prize Laureate for outstanding achievement in water science and technology by the National Water Research Institute.

The Athalie Richardson Irvine Clarke Prize is one of the most prestigious awards in the world presented to active researchers and practitioners making significant advances in water technology. Clarke Prize Laureates demonstrate excellence through their continuous contributions to the body of knowledge related to protecting, maintaining, treating and reclaiming water resources.

“It is an incredible honor to be named among such an accomplished group of scientists and engineers,” says Westerhoff, the Fulton Chair of Environmental Engineering in the Ira A. Fulton Schools of Engineering and a senior sustainability scientist at the Julie Ann Wrigley Global Institute of Sustainability. “This would not be possible without great students, awesome collaborators and the support of a great university.”

While much of Westerhoff’s work has focused on the risks nanomaterials can pose to contaminating rivers, lakes, streams and water treatment and delivery systems, he and his team are now exploring ways scientists can use nanotechnology to safely solve previously intractable water problems. He will also examine how machine learning and artificial intelligence can be applied to water quality datasets to help resolve global water.

Throughout his career, Westerhoff has been a leading contributor in the fields of environmental engineering and contaminant science, earning support from the Water Research Foundation, U.S. Environmental Protection Agency and the National Science Foundation, among numerous others. He currently directs the EPA Center for the Life Cycle of Nanomaterials and serves as deputy director of the NSF Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment. NEWT is developing technologies to provide sustainable water treatment systems for drinking water and industrial wastewaters.

“The Clarke Prize is recognition of the extraordinary impact of Paul’s work in advancing research on the science and technology of water quality and safety,” says Kyle Squires, dean of the Fulton Schools of Engineering. “He’s been instrumental in helping the Fulton Schools become a leader in the water research community and it’s extremely rewarding to see him regarded in such high esteem by his community of peers.”

The Clarke Prize marks the latest achievement for Westerhoff, who has garnered wide recognition for his work related to the treatment and occurrence of emerging water contaminants. He is the recipient of the 2018 WEF Fair Distinguished Engineering Educator Medal, a 2018 Fellow of the International Water Association, and winner of the 2017 Sustainable Nanotechnology Organization Achievement Award and the 2006 Water Research Foundation Paul L. Busch Award.

The NWRI is an independent industry institute that collaborates with water utilities, regulators and researchers to develop new, healthy sources of drinking water. Westerhoff will be recognized during an award ceremony on October 19, 2019, in Orange County, California, where he will deliver the 2019 Clarke Prize Lecture.
Over 75 years, a billion-dollar industry has grown up around a group of toxic chemicals that helps keep carpets clean, makes water roll off of camping equipment, and stops your food from sticking to frying pans. There are nearly 5,000 of these chemicals in a class called PFAS, for perfluoralkyl and polyfluoroalkyl substances.

We're just beginning to understand the risk they pose. What chemists know is that the tough carbon-fluorine bonds in these “forever chemicals” make them break down very slowly in the environment – posing a persistent risk to water supplies.

PFAS Linked to Liver and Developmental Problems
The Centers for Disease Control has profiled PFAS, which has been studied in people and in animals. Studies have linked to it developmental problems, thyroid disease, harm to the immune system, and impaired liver function. The CDC and Environmental Protection Agency also say some of the chemicals in this class may cause cancer.

PFAS are oil, stain, grease, and water repellent, so they’re found in consumer products like ski goggles and camping gear. What people are worried about now is where the chemicals might have entered drinking water through industrial uses. There’s a firefighting foam used on airport runways because it cleans up fuel spills and oil really well, and from there the PFAS chemicals could leach into soil, and then water.

Under a federal program, starting a couple of decades ago, companies voluntarily phased out the older versions of these PFAS chemicals. They aren’t made in the U.S. anymore, but some other newer ones are, and these newer chemicals may be less toxic, or may not be.

Thousands of Chemicals and Very Few Rules
Federal rules set a health advisory limit for drinking water at 70 parts per trillion. The CDC’s toxicology review suggests that for some chemicals the limit should be around one-fifth of that.

The Environmental Protection Agency has issued an interim plan which says that the agency will continue to study PFAS for a while yet. States have been moving to take swifter action.

So far, California has set a health advisory at 70 parts per trillion. But that doesn’t mean people here are drinking tainted water. The State Water Resources Control Board is undertaking a huge investigation of where PFAS might be, beginning with 1500 airports, wells and landfills.

Governor Gavin Newsom has now signed a law requiring water agencies to disclose when any PFAS chemicals are found in water above a level of 70 parts per trillion. The Association of California Water Agencies opposed the law, expressing concern that it might make people scared of their water without giving consumers useful information because the science remains complicated.

Cleanup Is Expensive
We can clean up PFAS from water supplies, but it’s costly. Water treatment plants have ways to trap the chemicals, including reverse osmosis. The problem is, treatment plants have to dispose of the chemicals they trap, and these chemicals don’t break down. It’s not an easy fix. Scientists are researching how to trap the chemicals better, and how to make the chemicals break down faster and more safely.

For more information, read the entire article here.

Results of Orange County Wells Tested for PFAS Toxins
68 county wells tested – 52 exceeded levels, 6 closed

The chart here shows those Orange County water agencies with orders to monitor wells for toxic chemicals known as PFOA and PFOS. Measurements are shown in parts per trillion. When PFOA measures at least 14 ppt or PFOS measures at least 13 ppt for the first round of testing this year, the agency must notify the cities served by those wells. Revised, lower levels will be in effect for tests later this year.

When a well’s combination of PFOA and PFOS measures 70 ppt or more – dubbed the “response level” – the state recommends closing the wells and the federal EPA recommends notifying customers. They won’t be required to close wells or notify customers until next year, when a new state law kicks in.

For agencies with more than one PFOA- or PFAS-affected well, the highest measurements are given. While this chart lists the cities notified of the chemicals, some cities are served by more than one water agency so not all residents in a listed city is necessarily affected.

The city of Orange and Irvine Ranch Water District shut down wells with PFOA or PFOS prior to this year’s testing orders. This chart focuses on this year’s testing. To read the complete article on PFAS in Southern California drinking water, click here.
Orange County Water District’s Philip L. Anthony Water Quality Laboratory is the first public agency laboratory in California to achieve state certification to analyze for per- and polyfluoralkly substances (PFAS) in drinking water.

The PFAS family of chemicals includes perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) contaminants. Certification was granted by the Environmental Laboratory Accreditation Program (ELAP) administered by the State Water Resources Control Board (SWRCB).

The lab had previously received certification from the U.S. Environmental Protection Agency (USEPA) to test drinking water in accordance with USEPA Method 537 that determines the concentration of selected perfluorinated alkyl acids, such as PFOA and PFOS. This certification was received as part of the USEPA’s Unregulated Contaminant Monitoring Rule (UCMR) 3 program, with the OCWD lab being only one of three public agency labs nationally to be certified for all UCMR methods.

“Operating the first public agency lab in California to achieve state ELAP certification for Method 537 is the result of OCWD’s commitment to exceptional water quality,” stated OCWD President Vicente Sarmiento. “OCWD tests water for over 500 compounds, while only 109 of those compounds are required to be regulated by state and federal law.”

PFOA and PFOS compounds were historically used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials resistant to water, grease or stains, and were also used for firefighting at airfields, and in several industrial processes. In 2006, companies in the U.S. voluntarily agreed to phase out U.S. production of these chemicals by the end of 2015.

Although yet to be federally regulated, in 2016, USEPA issued a provisional health advisory for lifetime exposure to these compounds set at 70 parts per trillion (ppt) for the combined sum of PFOA and PFOS concentrations. In July 2018, California Division of Drinking Water (DDW) established Notification Levels of 14 ppt for PFOA, 13 ppt for PFOS and a combined Response Level of 70 ppt. One part per trillion is like one drop in a volume of water that can fill 26 Olympic-sized swimming pools.

The Method 537 certification is possible because of significant investments OCWD made to improve the sensitivity of OCWD’s lab equipment to look for contaminants of emerging concern.

**SWRCB Lowers Notification Levels for PFOA, PFOS**

By Will Holbert, *ACWA Water News*

The State Water Resources Control Board’s Division of Drinking Water (DDW) on August 23 announced new Drinking Water Notification Levels for perfluorooctanoate (PFOA) and perfluorooctane-sulfonate (PFOS). The new levels replace interim levels set in July 2018 for the two contaminants, which belong to the group of chemicals collectively called per- and poly-fluoroalkyl substances (PFAS).

The Notification Level for PFOA has been lowered from 14 parts per trillion (ppt) to 5.1 ppt and the Notification Level for PFOS has been lowered from 13 ppt to 6.5 ppt. While Notification Levels are not regulations, water agencies must notify local governing bodies if they are exceeded. The State Water Board recommends, but does not require, that water agencies also notify customers and DDW. This latest action will likely impact many water agencies through inquiries from customers and news media.

DDW also announced it will update Drinking Water Response Levels for PFOA and PFOS this fall. Until then, the Drinking Water Response Levels of 70 ppt for the total combined concentration of both contaminants remains in place and is consistent with the existing U.S. Environmental Protection Agency health advisory. When Response Levels are exceeded, the State Water Board recommends that water agencies either remove the water source from service, or notify governing bodies and customers that the water source exceeds these levels and is still being used.

Additionally, DDW has requested that the California Office of Environmental Health Hazard Assessment develop Public Health Goals (PHG) for PFOA and PFOS. Establishing PHGs is a preliminary step for the State Water Board to set Maximum Contaminant Levels for these contaminants.

And finally, the U.S. Environmental Protection Agency is expected to make a determination on whether to set a federal drinking water standard for PFOA and PFOS by the end of this year.

For more information, the complete article is on the *ACWA website.*
Orange County Water Association

OPERATOR EXPO
Certified Continuing Education (CEU) Training, Product Exhibitions & Team Competitions

This annual event provides a great opportunity for quality continuing education, a chance to gather information on new products and learn more about current technologies directly from the experts, and an excellent opportunity to socialize with others in the industry.

This Specialized CE Training and Vendor Exhibition ranks among OCWA’s Premier Events, and the Tapping Competition is a great way to build teamwork and meet others.

Space Goes Quickly so Sign-Up ASAP. You won’t want to miss it!

Thursday, September 19, 2019
7:30 a.m. to 1:30 p.m.
Rattlesnake Reservoir
4769 Portola Parkway, Irvine

★ Vendor Exhibits ................................ All Day
★ Vendor Set-Up .................................... 7:00 am
★ Operator Training ‘Check In’ .......... 7:30 am to 8 am
★ Operator Training (2 Sessions) ...... 8 am to 10 am
★ Pipe Tapping Competition ........ 10 am to Noon
★ Horseshoe Competition .............. 10 am to Noon
★ CATERED BBQ LUNCH ................. Noon to 1 pm
★ Opportunity Drawing ................... 1 pm

Catered Lunch: Tickets: $45.00 each

Door Prizes needed; please bring to event.
Sponsorship Opportunities are Available:
Sponsor: $200.00 ★ Exhibitor: $300.00

Sponsors receive recognition at the event, have their name on a banner, and are recognized in the OCWA newsletter.

Reservations can be made on the OCWA website: www.ocwater.org
or you may email Bobby Young at byoung@etwd.com

Make Plans to Attend!
Register Today!

Horseshoe Competitors — especially women — are encouraged to sign up. We have space for multiple teams.

Training Sessions & Vendors Announced Soon

Make Plans to Attend!
Register Today!

Horseshoe Competitors — especially women — are encouraged to sign up. We have space for multiple teams.

OPERATOR TRAINING (2 Contact Hours)
Operator training courses will be offered for hands on training in select industry skills. We haven’t finalized the arrangements yet, but expect to have detailed information available soon. This is a great opportunity to gain 2 contact hours for certifications. Certificates will be provided for attendees.

Attendees may sign up for the training on the OCWA website, www.ocwater.org, or contact Bobby Young at byoung@etwd.com

VENDOR EXHIBITION
Last year, we had over 20 vendors from the water industry display their latest products and services. There were pipe suppliers, tank suppliers, valve suppliers, meter suppliers and more on hand to demonstrate their products and answer questions. This is a great opportunity to meet multiple suppliers in one place and get information that will benefit your agency or project. Since the venue is outside, some vendors have live demonstrations of their products.
Come see the best and latest products in the water industry!

OPERATOR COMPETITION (Pipe Tapping Contest)
This is the 12th year of the pipe tapping contest. This is a great opportunity to build teamwork among staff. The pipe tapping contest will follow the same rules as the AWWA competition. Each team will be given two chances at the pipe tap. All material – except the tapping machine – is provided by OCWA. Trophies are awarded to the first and second place teams. Contact Randy Lovan at (949) 439-0423 if your agency is interested in competing. Attendees and observers enjoy the benefit of networking with operators from other agencies, which helps improve the overall industry.

HORSESHOE COMPETITION
Our Horseshoe Competition is back by popular demand! There is a limit of two teams per Agency with two contestants per team. This will be a single-elimination competition. Complete contest rules are available online at www.OCWater.org. To participate, teams must be registered to attend the Operator Training/Team Competition Event. All registrations must be made before 5 pm on Tuesday, September 17. To register, write Bobby Young at byoung@etwd.com.
YES! I would like to participate in the OCWA Annual Exhibition and Operator Training Event

I wish to participate as:

☐ Exhibitor ($300*)

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*Exhibitors receive covered exhibitor space for set-up and display (please let us know if you have any special needs or requirements), prominent listing in all on-line and associated advertising, and lunch for all participants.

☐ Sponsor ($200**)  

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**Sponsors will be prominently displayed in all on-line and associated advertising, as well as be listed on event-day signage.

Enclosed, please find a check payable to Orange County Water Association in the amount of:

Mail this form, with your check, to:

Orange County Water Association
P.O. Box 51404 • Irvine, California 92619-1404

Questions? Please contact Bobby Young, (949) 837-7050, or via email at byoung@etwd.com

Please respond by Thursday, September 5, 2019, to ensure adequate space is available.
SPONSORSHIP OPPORTUNITIES!

62nd Annual Christmas & Holiday Party

Friday, December 6, 2019

6:00 Cocktails ♦ 7:30 Dinner
Casino Night & Slot Cars ‘til 11:00

We’re returning to the extraordinary venue
we had such fun at
the last few years!

Marconi Automotive Museum
1302 Industrial Drive ♦ Tustin

Vintage cars, luxurious decor, fabulous food,
and of course, everyone’s favorite: Slot Cars!

Additional Tables of 10 are available for $800
Individual Tickets are available for $90
Seating is Limited and will go fast!

Those who bring an unwrapped toy donation will receive a Free Raffle Ticket!
Donated toys will be distributed by the Marconi Foundation for Kids

Checkered Flag - $2,500 or more
Includes: 1 Table for 10, Prominent Logo Displays,
3 Sponsor Provided Slides Rolling During Event,
and Slot Car Sponsorship!

Team Owner - $1,500 or more
Includes: 1 Table for 10, Prominent Logo Displays,
and Sponsor Provided Slide Rolling During Event!

Pit Crew - $500 or more
Part of Group Logo Display!

For Sponsorship Opportunities, contact Bobby Young at byoung@etwd.com

Sponsorships received by October 18, 2019 will be displayed on both our website and on event announcements

For Additional Information, visit www.ocwater.org

MAKE CHECKS PAYABLE TO OCWA AT P.O. BOX 51404, IRVINE, CALIFORNIA 92619-1404
ARE YOU INVOLVED IN THE WATER INDUSTRY IN ORANGE COUNTY?
If yes, then consider becoming a member of the Orange County Water Association (OCWA).
OCWA mission is to foster advancement in the Water Works Industry, set high standards for potable water, exchange ideas and work for standard policies and procedures of mutual help during water emergencies, disseminate information for the education of the general public in the use of water and its value to civilization and aid in water research.

ORANGE COUNTY WATER ASSOCIATION BY THE NUMBERS

| OVER 230 MEMBERS | 120+ Companies Represented | SAVE $100+/yr with membership event discounts | 50+ YEARS OF SERVICE TO ORANGE COUNTY | 45+ AGENCIES REPRESENTED |

AS A MEMBER OF OCWA YOU WILL RECEIVE THE FOLLOWING BENEFITS

Build Your Network

• Monthly Meetings: Reduced fees for our monthly meetings which provide an opportunity to hear from local leaders on new and innovative projects, and meet other local water industry professionals.
• Annual Holiday Party: The annual holiday party brings together over 200+ members and guests.
• Annual Golf Tournament: This member only event draws 100+ water professionals. The event features prizes and a non-scramble format.
• Expand Your Contacts: Members gain access to OCWA’s vast member directory.

Advance Your Career

• Board Positions: Earn a position on the Board to gain leadership.
• Gain Visibility: Gain opportunities to present your agency/company’s projects or programs to our local network.
• Committee Positions: As a member, consider joining one of various committees.

Education and Training Opportunities

• Monthly Newsletter: Jobs, projects, local water news, regulatory and legislative updates each month.
• Safetyfest: Earn CEUs from State approved training sessions.
• Annual BBQ: This Operator Training Event, offers CEUs, over 20 vendor exhibitions, and a Pipe Tapping Contest.

To join OCWA visit our website at: ocwater.org/join-us
South Coast Water District Wins Award of Excellence

South Coast Water District (SCWD) took top honors at the annual California Association of Sanitation Agencies (CASA) conference August 22 for Public Outreach / Education – Small Agency. This award recognizes the development and implementation of programs that impact or educate a segment of the local community on issues relevant to the industry.

SCWD received the award in recognition of its communications efforts over the past two years for the Tunnel Stabilization & Sewer Pipeline Replacement Project (Tunnel Project). The Tunnel Project is a five-year, $100 million project to replace a two-mile, 65-year-old tunnel that currently houses a gravity sewer. The sewer provides wastewater service for the northern portion of Dana Point, homes along the west side of coast highway at Three Arch Bay and in South Laguna. It is buried approximately 50 feet beneath the bluff from Three Arch Bay to Aliso Beach. The tunnel, located 20 – 30 feet from the edge of the cliffs and underneath multimillion dollar homes, sits right above the Pacific Ocean’s federally protected marine life habitat.

SCWD received this recognition because it wholeheartedly believes in engaging stakeholders and establishing partnerships as a critical part of its sustainability strategy. It is SCWD’s philosophy that engaging a diverse group of stakeholders over the long term, in constructive and open dialogue, makes it a better agency. Working in partnership with the District’s board of directors, the project contractor Drill Tech, project management firm Parsons Engineering, the City of Laguna Beach, the South Laguna Beach Civic Association, and the residents of South Laguna, enabled SCWD to identify and address potential issues proactively and collaboratively.

As a result of this communication, specific modifications were made to the project. The District used an electric crane for the project. It was an added cost of approximately $500,000; however, it cut down considerably on the noise and possible health effects to residents and workers from running a diesel crane. Second, the District installed (at the neighbors’ request), a sliding gate to the site instead of the standard opening outward gate. An electric rail car system was installed within the tunnel. No diesel engines were used at the site. The electrical muck train compartments cut down on the dust emitted when transferring the dirt from the muck buckets to the trucks transporting the materials off-site. And the air system was camouflaged to blend in with the environment and prevent it from being an eyesore. While initially costing the District extra time and money, the result of these changes benefited the project as a whole. To learn more, visit the SCWD Facebook page.