With the boundless optimism borne of our industry, tempered by the prudence of necessary caution, your Orange County Water Association continues to plan for multiple upcoming events and presentations. Unfortunately, developments continue to outpace us, and we’ve had to cancel our April Industry Insight.

After the disappointment of cancelling our March Industry Insight luncheon, we’d hoped we’d be back up and running for the April 15th presentation. We’d almost finalized arrangements with our speakers for an update on Pure Water Oceanside, the first recycled water project in San Diego County, when we heard the social distancing rules are to be in effect until May. We’ll reschedule this presentation for another day, but for now it will have to wait.

On a tentative basis, then, we continue to plan for our future. Barring further directives, we hope to be operational beginning next month.

May will see the return of our annual county-wide safety training event. The 12th Annual OCWA SafetyFest will once again be held at the City of Santa Ana’s Public Works Yard. We’re asking people to save the date, Thursday, May 28, for what promises to be a highly informative, very pertinent slate of topics.

This year we’ve been ably assisted in organizing SafetyFest by Vicki Osborn, the new Director of Emergency Management at WEROC, the Water Emergency Response Organization of Orange County. Ms. Osborn has helped organize a number of top-notch speakers for the event, with topics that cover a wide-scope of interests.

To learn more about Ms. Osborn and WEROC, see page 2. Further information about SafetyFest can be found on page 3.

June finds us looking to the great outdoors and our 41st Annual OCWA Golf Tournament. Once again, our event will be held at Strawberry Farms Golf Club in Irvine. Always a memorable outing, this year’s tournament, to be held June 1, promises to be especially entertaining. Spots are still open and members and their guests are invited to join now. In addition, Sponsorship Opportunities remain available. For additional information on the tournament, including costs and qualifications, please see page 6.

By July, we expect to be back to regular operations, with our Industry Insight luncheon planned for the 15th of the month. This event will be especially noteworthy, with the return of Metropolitan Water’s Brad Coffey. Those who attended Mr. Coffey’s presentation last year can attest it was an informative, engaging presentation. We’re very excited to welcome him back again.

We are also considering a June luncheon presentation, to makeup for any postponed events. Ordinarily we go dark in June, on

Continued on Page 8
The Municipal Water District of Orange County (MWDOC) is pleased to announce Victoria Osborn as the new Director of Emergency Management for the Water Emergency Response Organization of Orange County (WEROC) – an exemplary program administered by MWDOC that supports countywide preparedness, planning, response, and recovery efforts among Orange County water and wastewater utilities.

Osborn, who joins MWDOC after serving 25 years at the Orange County Sheriff’s Department (OCSD), was selected after a competitive recruitment of candidates from across the country.

“Ms. Osborn is a leader in emergency management with the ability to bring together partners and agencies,” said MWDOC General Manager Rob Hunter. “We are thrilled to have her contacts, expertise, and experience in the Orange County Operational Area to take WEROC to the next level.”

Osborn has intimate knowledge of the County’s vulnerabilities and tendencies, and has strong relationships with first responders across the board, serving on the front lines of disaster response during her time at OCSD. She also serves on the State Board of Directors for the California Emergency Services Association.

“I look forward to serving Orange County as the WEROC Emergency Management Director. As recent fires and floods have reminded us, the cost of living in paradise is ensuring you are prepared should disaster strike,” said Osborn. “I am eager to continue our efforts towards building a culture of preparedness and resilience for our member agencies.”

Survey Shows Water Utilities Confident in Maintaining Operations

With water and wastewater services critical in combating the COVID-19 pandemic, more than 90 percent of water utilities have business continuity plans in place or have plans to develop them, according to a survey from the American Water Works Association (AWWA).

The survey, conducted March 10-16, included responses from employees at 286 utilities and 160 non-utilities (consultants, manufacturers, service providers and others). Distributed by email, the rapid-assessment survey provides a snapshot of how water sector organizations are managing risks at the outset of the COVID-19 pandemic.

Business continuity plans are constructed to help organizations maintain solid operations–financially, managerially, and functionally, throughout any incident.

The survey indicated that 55 percent of utility respondents have business continuity plans, 27 percent have plans currently in development and 10 percent are planning to develop them. Ninety-three percent of utility respondents stated there are enough resources available to develop business continuity plans.

Absenteeism and continuity of operations are major areas of expected challenges from COVID-19 for water utilities, with 75 percent of respondents expressing concern in these areas. Other concerns include impacts on field operations like meter reading and repairs (46%) and interruptions of treatment chemical supply chains (44%).

Eighty-eight percent of utilities either have a plan or are working on a plan to ensure the continuation of field operations that require on-site employees. Additional resources associated with pandemic planning will continue to be posted at awwa.org/coronavirus.

The U.S. Centers for Disease Control and Prevention and other public health authorities are urging people to wash their hands often with soap and water, making access to safe tap water central to stopping the spread of COVID-19. Many water utilities throughout North America have announced that they are stopping water shutoffs for nonpayment during the pandemic to ensure all people have access to safe, reliable water.

Vicki Osborn
Former O.C. Sheriff’s Official Set to Lead WEROC
(Water Emergency Response Organization of Orange County)

There are a number of new positions listed on the OCWA website. Click the titles to access the information:

- La Habra - Water Services Technician II (04-01)
- EOCWD - Wastewater Collection Operator I (04-03)
- Genterra Consultants - Irvine Staff or Project CE,GE

For further information on these and other currently open positions, please check them out in the “Opportunities” section of the OCWA website:

www.ocwater.org/Opportunities

Members and their agency or company can post Opportunities to the OCWA website, free of charge, as often as they’d like. If you wish to post a job opening, and are a current member, please send a PDF of your listing to the OCWA webmaster. We’ll post the listing on the website and, if space permits, advertise it in the member-only monthly newsletter as well.
ORANGE COUNTY WATER ASSOCIATION

2020 SafetyFest

Join us for the twelfth annual county-wide safety training event created specifically for operations staff in the water industry.

Thursday, May 28, 2020 • 7:30 am to 4:00 pm
Registration begins at 7 am • Continental breakfast and a lunch buffet are included.

Tickets: $45.00 PER PERSON (Member & Non-Member)

Training Session Topics include:
Roundtable Discussion: Put Your Operations/Engineering Hat On
Dig Alert 2020 • Generators & What You Need to Know
Tips & Tools for How to Handle Contact with the Homeless and People with Mental Challenges
O.C. Environmental Health: What They Have & How They Can Help You Daily

Our hope is the COVID-19 restrictions will be lifted in the near future, allowing us to hold our event on the scheduled date. In the meantime, we'll keep our options open to reschedule if needed.

City of Santa Ana Public Works Yard
220 S. Daisy Avenue • Santa Ana, California 92703

For questions about reservations, contact:
Bobby Young at (949) 837-7050, ext. 247
or via email: BYoung@etwd.com

REGISTRATION WILL OPEN AS SOON AS PRACTICAL
How to Swim in Recycled Water
A Recap of OCWA's January Industry Insight Presentation

By Tim Hogan, OCWA Communications

It wasn’t so long ago, a common warning posted for recycled water cautioned not to touch it. Today, the warning may advise that, for safety’s sake, you swim in it with a buddy.

This remarkable turn of events was the subject of OCWA’s January Industry Insight presentation. In a lively discussion, Santa Margarita Water District’s Deputy General Manager, Don Bunts, and Chief Engineer Tricia Butler, provided remarkable insight into recent improvements at Lake Mission Viejo, “California’s First Recycled Water Swimming Lake.”

Speaking before another capacity crowd, the two speakers took turns addressing the various issues – both political and technical – that went into development of this national award-winning project.

As with so many recent developments in the water industry, it began with a drought. Two droughts, actually. The one in the mid-seventies, when Lake Mission Viejo was first filled, and our most recent drought, when the State began to seriously clamp down on potable water use. Controversial from the start, Lake Mission Viejo met with serious opposition statewide in the ’70s for its use of precious drinking water to fill a recreational lake. In the decades that followed, the controversy never ebbed, and in 2015, when drought was foremost in everyone’s mind, the State imposed substantial reductions in the use of potable water.

Lake Mission Viejo was on the verge of drying up.

SMWD proposed a radical solution. Within 9 months, the District would design, build, and put into operation an Advanced Treated Water Facility that would provide recycled water for the Lake clean enough for swimming. And there’d be enough water to maintain the Lake’s level year-round. Furthermore, there’d be no algae blooms, and total dissolved solids would be vastly reduced.

It was an ambitious, unprecedented plan. And the citizens around the Lake loved it. By unanimous acclaim, every precinct in the LMV Home Owners’ Association voted in favor of swimming in recycled water.

Under the gun, with less than a year to complete the project, SMWD sought advantage in every step of the process. For the design/build, the District chose to do most of it themselves. To further hold costs down, and help speed construction, the District purchased equipment “as new” from a defunct Colorado fracking concern. They then pre-set the pipes and equipment before tilting-up the buildings around them.

Luck played a role as well. The District already had land next to the Lake that they could use for the new Facility. And fortunately, an abandoned pipeline connected the site to the Lake, so there was no need to tear up Alicia Parkway, which would have added time and seriously disrupted the neighborhood.

To pay for it all, SMWD formed a unique partnership with the City, the LMV Association, and Metropolitan Water District of Southern California, to cobble together a remarkable agreement built on a mix of grants, low interest loans, and shared costs. And to avoid impacting all of the City residents’ utility bills, the LMVA Home Owners Association agreed to pay for all the water used in the Lake that largely benefited only them.

What they created was remarkable: the first lake in California — if not the nation — fed by recycled water in which people could swim. Designed to produce up to 600 acre-feet per year of treated recycled water, the Water Facility’s treatment processes include ultrafiltration, reverse osmosis, and ultraviolet-light disinfection. Where the Lake had previously used a blend of 91% imported potable water, and 9% recycled water for irrigation, it now uses 99% recycled water for all purposes, irrigation as well as swimming and boating. And the Lake continues to look and smell as pure and unadulterated as it always has.

Most importantly, the residents love it. Aside from some minor aesthetic issues during construction, there has been no backlash or complaints about the water treatment plant or the use of recycled water in the Lake. All this, and there’s been a savings of up to 98 million gallons of drinking water every year.
A Recap of OCWA’s February Industry Insight Presentation

South Coast Water District Digs in Deep

**Massive, Multi-Year Tunnel Project is an Engineering Marvel**

*By Tim Hogan, OCWA Communications*

It’s a renovation project few would relish: A decaying, two-mile long tunnel, hewn into a rocky oceanside cliff, with a 24” gravity-fed sewage pipeline in need of replacement, all situated beneath scores of beachside properties.

Daunting as it sounds, the task was especially foreboding, for over a million gallons of wastewater are channeled daily through this critical line, and disrupting the flow was out of the question. Nor could there be any spills, for the project was directly adjacent to protected coastal marine conservation areas.

This was the scene described by Joe McDivitt, Chief Operations Officer for South Coast Water District, when he joined OCWA for February’s Industry Insight event, to discuss the Beach Interceptor Sewer Tunnel and Pipeline Replacement Project. It was a remarkable tale, a story of near endless permits and easements, a constant balancing of the job with the need to maintain public confidence, all while carrying out a challenging feat of engineering.

Speaking before a capacity crowd, McDivitt explained that when the decision was made to upgrade, the tunnel and sewage line were over 60 years old. Built when Laguna Beach was a rural community with few homes and businesses, current conditions are decidedly different. Now there are a plethora of agencies guarding the land and coast, and hundreds of vested homeowners above the line — many of whom were unaware of the tunnel beneath their property.

Much of the original tunnel was dug by hand, but some areas were blasted, primarily through bedrock, to forge the approximately six-foot square passage. While the rock formed a solid structure, the earthen sections were shored up with treated timbers. And while the original, gravity-fed pipeline, ingeniously designed to eliminate the need for numerous lift stations along the coast, had served the needs of an ever-increasing number of people, homes, and businesses, it was showing its age and needed to be replaced.

Plans called for the new tunnel to be enlarged to about 9-feet square with a “horseshoe shape,” rounded at the top. It would also be built above the original pipe, which would be retained for emergency use but encased in concrete for protection during the construction project. A new, 24” replacement sewage pipe would be installed in the new tunnel. And the tunnel itself would be lined with steel beams and reinforced shotcrete — sprayed in concrete — to provide both structural reinforcement and a safe working environment.

It was anticipated that over 29,000 cubic yards of rock, dirt, and lumber would need to be removed from the tunnel, approximately 3,000 round trip truck loads.

To speed access both for the upgrade and for ongoing maintenance, new staging and work areas would be built and a new access shaft installed. And to the relief of all the homeowners and businesses nearby, there would be no blasting as was employed in 1954. New machinery would be brought in to bore out the tunnel, and removal of debris would be tightly controlled.

The project is estimated to take six years. When completed, the replacement would ensure reliable sewer service for another 100 years, prevent sewer spills, and provide better access for maintenance and safer work conditions.

Before it could begin, however, there were extensive community outreach meetings, held to both educate the citizens and hear their concerns. From these listening sessions, the District identified numerous areas for analysis, among them aesthetics, air quality, noise, traffic, recreation, and biological, paleontological, geological and geotechnical resources. Historical resources were also analyzed because of possible impacts on one of the tunnel access locations in the plan.

The public outreach effort paid off. It took three years, but the District was able to acquire 196 new easements from the private property owners on the bluff. And there was only one lawsuit, eventually settled in favor of the District.

The necessary permits took years to acquire as well, but due diligence and careful adherence to procedures proved invaluable. Among the many permits required, the District had to obtain California Environmental Quality Act approval, Coastal Commission Permits, California Environmental Quality Act approval, Caltrans Encroachment Permits (to construct an access tunnel beneath Coast Highway), OC Harbor and Beaches Permits, Coastal Development Permits and Conditional Use Permits from the City of Laguna Beach, and a Temporary Use Permit from the City of Laguna Beach, and a Temporary Use Permit from the

*Continued on Page 6*
2020 Golf Tourney Set for Strawberry Farms GC

Monday, June 1, 2020
7:15 am Check-In/ Breakfast • 9:00 am Shotgun Start

It’s that time of the year again! Time to start thinking about the Annual OCWA Golf Tournament.

Once again, as we did last year, we’ll hold our event at Strawberry Farms Golf Club (SFGC) in Irvine. The SFGC staff has been very welcoming to our event and we will be able to continue to make changes for the better.

First – and possibly best – golf entry fees will remain $150. Already the day’s looking bright, when prices hold from year to year! We will also start the event earlier in the day. SFGC will allow us out on their course by 9:00 a.m., which will allow us to be finished with the awards ceremony by 4:00 p.m. or so. Check-in will be 7:15 a.m.

Singles and twosomes are welcomed and appreciated. As a reminder, the event is for OCWA members & their Water Professional guests. The OCWA Board requires a minimum of one OCWA Member per cart or two OCWA Members per foursome.

Lastly, please check your OCWA Membership status as we will be reviewing your status more closely this year as that is a requirement to be in the event. The benefits of membership far outweigh the modest $70 per year cost. Check the Membership tab on our website for complete information.

For additional information about the Tournament, please e-mail Mike Sinacori at Msinacori@newportbeachca.gov or give him a call at (949) 644-3342.

CLICK HERE TO DOWNLOAD REGISTRATION FORM AND EVENT RULES

Sponsorship Opportunities!

Sponsorship pricing will remain $250, same price as it has been the past few years. And as noted above, isn’t it great when prices hold from year to year?

Your sponsorship helps buy the prizes for the event. It also pays for the planned breakfast and awards ceremony, where SFGC’s famous barbecue and no-host bar will be provided. Your sponsorship also provides for a company tee sign and company name, contact and phone number on the reverse of the rules, which goes to every player the day of the event. Sponsors are also listed in the OCWA monthly newsletter to all association members starting in April, as well as on the OCWA website. What a great good marketing deal!

To become a priority sponsor, simply print the form, fill it out and send it in with a check for $250.

Lastly, please check your OCWA Membership status as we will be reviewing your status more closely this year as that is a requirement to be in the event. The benefits of membership far outweigh the modest $70 per year cost. You can sign up for Membership on-line at www.ocwater.org.

For additional information, please e-mail Mike Sinacori at Msinacori@newportbeachca.gov or call him at (949) 644-3342.

CLICK HERE TO DOWNLOAD SPONSORSHIP AND REGISTRATION FORM

SCWD Provides an Update on its Sewer Tunnel Project

Continued from Page 5

City for a house adjacent to the Staging Area to be used as a Project Office.

The Staging Area proved another sticking point. The District purchased property at 4th Avenue and Pacific Coast Highway, an old residential site. But before the dilapidated structure could be removed, and the site cleared for construction of the Tunnel Access shaft, approval from the City Heritage Committee, Planning Commission, and City Council had to be obtained, as well as a Coastal Development Permit. Eventually, all was approved, and construction of the shaft, and work on the tunnel, could begin. Click the image above to see an animated perspective on how the work was accomplished.

Additional videos and photos of the construction project are available on the SCWD website.

Construction has been steady the past three years, and completion is estimated to be done in October of 2023. So far, construction costs to date total a little over $47 million, with an estimated overall project cost of $94 million.

In conjunction with its partners, Mott MacDonald Group, Parsons Corporation, and Drill Tech Drilling and Shoring, South Coast Water District is proud to note that this project has fulfilled all its earliest expectations and been well-received by the community at large.

The District is even more pleased to confirm it has never experienced a sewer spill onto the beach or ocean since the tunnel sewer line opened in 1954.
If You’re Involved in the Orange County Water Industry, You Should be a Member of the ORANGE COUNTY WATER ASSOCIATION

As an Association Member, You Receive these Valuable Benefits…

**Knowledge & Networking Opportunities**

- **Monthly Meetings:** Reduced fees for our monthly Industry Insight meetings, informative luncheon talks at which members have an opportunity to hear reports on new and innovative projects, and meet and mingle with other local water industry professionals.
- **Expand Your Contacts:** Members gain access to OCWA’s vast member directory.

**Career Advancement**

- **Board Positions:** Earn a position on the Board to gain leadership and help guide the Association.
- **Committee Positions:** As a member, you’re invited to join one of the Association’s various committees, or volunteer to help with an event. It’s a fun way to contribute, meet people, and get involved.
- **Increased Visibility:** Gain opportunities to present your agency or company’s projects and programs to our local network.

**Timely Communications**

- **On-Going Updates:** Receive regular notices on jobs, projects, local water news, and regulatory and legislative affairs.
- **FREE Job Listings:** Members and their organization can post unlimited job listings to the Association website. Listings are promoted with periodic e-blasts sent to our 1,500+ contacts.

**Quality Social Events**

- **Annual Holiday Party:** Our annual extravaganza brings together over 200 members and guests for a night of fun and socializing. Opportunity drawings for prizes are held throughout the evening.
- **Golf Tournament:** This member-involved event annually draws over 100 water professionals. With a traditional, non-scramble format, the contest features breakfast, lunch, and an abundance of prizes, all at a local, first-rate country club.

You’ll also Contribute to Industry Education & Training…

- **SafetyFest:** The Association hosts this annual State-approved training session to help educate Operators on the latest safety issues. Participants earn continuing education units (CEUs).
- **Operator Expo:** Our most popular Operator Training Event, this End-of-Summer celebration features some two dozen vendor exhibits, State-certified training sessions offering CEUs, and a Pipe Tapping Contest pitting some of California’s premiere teams.

Membership in the Orange County Water Association can benefit both your career and your company.

With an all-inclusive mission, OCWA appeals to every sector of the water community. Whether your interest lies in drinking water or wastewater, recycled water or stormwater; whether you work for a corporation or agency, are an engineer or consultant, OCWA offers opportunities to promote your firm and its activities, broaden your knowledge, expand your network, and increase your presence in the community.

Choose to become a member today. It’s a commitment to your industry; it’s an investment in yourself.

Orange County Water Association

**BY THE NUMBERS**

<table>
<thead>
<tr>
<th>Over 260 Members - and Growing!</th>
<th>120+ Companies Represented</th>
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<tbody>
<tr>
<td>45+ AGENCIES REPRESENTED</td>
<td>SAVE $125+/year with membership event discounts</td>
</tr>
<tr>
<td>More than 12 Quality Events Every Year</td>
<td>Over 60 Years OF SERVICE TO ORANGE COUNTY</td>
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Membership in Orange County Water Association is a substantial investment in your career. But membership benefits the community as well, for your dollars support OCWA’s mission to bring quality, informative presentations and events to Orange County.

www.ocwater.org/join-us
A Full Slate of Events & Activities are On Hand for 2020

Continued from Page 1

account of the golf tournament, but if needed we’ll keep our options open. In any event, we certainly plan to reschedule Jason Dadakis’ presentation, “PFAS in the Orange County Groundwater Basin,” be it in June or at a later date.

Later in the year, our always popular Operator Expo is slated for September 24. We’re honored that Irvine Ranch Water District will again facilitate our annual event at their Rattlesnake Reservoir. Offering both CE-certified training sessions and a chance for operators to meet and talk with a wide variety of industry vendors, this yearly extravaganza also features a spirited pipe tapping competition pitting some of the county’s finest teams against each other, a robust horseshoe competition, and a great BBQ lunch.

And our year would not be complete without our annual Holiday Party. This year, we’re planning an extra special evening at a new venue. We’re still finalizing the arrangements, but expect to unveil everything in an announcement in the coming weeks. But do mark your calendar and plan to attend, Friday, December 4.

We’ll keep you apprised of the latest news from OCWA as it develops. Look to your email for our updates. And in these challenging days, stay safe and stay well.

Sponsorship Opportunities for Monthly OCWA Presentation

Would your company like to sponsor one of our monthly Industry Insight Presentations? Sponsorships are available for $250, and sponsors must be a current OCWA member. A table is made available at the meeting for the sponsor to display their company or agency information, and the sponsor receives two free lunches. Sponsors will be provided announcement space in the newsletter and will be verbally recognized before and after the luncheon.

If you are interested in participating, please contact Sandy Scott-Roberts, (714) 378-3292, or you may email her at sscott@ocwd.com