

Location: Carollo Engineers
Address: 707 Wilshire Blvd
Los Angeles, CA 90017
Purpose: Bi-Monthly Meeting
Date and Time: February 12, 2019 from 11:30 a.m. – 1:30 p.m.
Distribution: Los Angeles WaterReuse Association Chapter Members

Lunch: Sponsored by Carollo Engineers

Below is a summary of the highlight from the February 2019, bimonthly member meeting of the Los Angeles Chapter of the WaterReuse Association.

The presentations from this meeting can be found at:
<http://www.watereuse.org/sections/california/losangeles/meetings>

- 1. Host presentation: Update on the Los Angeles Groundwater Replenishment Project (Phase 1) – Ozone Demonstration Project (Joline Muñoz/LASAN, Yoshiko Tsunehara/LADWP, and Jeff Mosher/Carollo)**
Joline Muñoz is an Environmental Engineer with LA Sanitation. Yoshiko Tsunehara is an Associate Civil Engineer at LA Department of Water and Power. They presented the initial phase of the LA Groundwater Replenishment (GWR) Project – an ozone demonstration project. Joline first presented the overview of LA GWR project, including the plan goals, GWR initial and future phases, project timeline, and Jeff Mosher described the outreach program and shared recent market research results.

Currently, more than 50% of LA’s water supply comes from outside the region. LA’s water sustainability goals are to reduce LA’s dependency on imported water by cutting purchased water imports in half by 2025 and producing 50% of the City’s water locally by 2035. Groundwater replenishment is an important part of meeting LA’s water sustainability goals. This project is supported by state funding and will clean up and restore the use of groundwater as a safe, high-quality source of drinking water. LADWP has a long, proactive history of water resources management. During 2012-2016, the sources of LADWP water supply were as follows: 64% from Metropolitan Water District, 20% from the LA Aqueduct system, 24% from local groundwater, and 2% from recycled water. The average total demand is 540,400 acre-feet per year. In 2040, the total production will be 675,700 acre-feet per year, and the sources of water supply will be changed to: 43% from the LA Aqueduct, 17% from groundwater, 11% from Metropolitan Water District, 7% from recycled water non-potable reuse, and 5% from recycled water GWR. Joline continued to introduce more details of LA GWR Project. LA Sanitation and LADWP are committed to this sustainable water future that relies more on local water supplies than costly and unreliable purchased imported water. The GWR project is an important infrastructure investment that will help develop a local, safe and reliable water supply. GWR project will provide up to 9.78 billion gallons (30,000 acre-feet) of purified water per year from the Donald C. Tillman Water Reclamation Plant in Van Nuys to the Hansen and Pacoima Spreading Grounds in the eastern San Fernando Valley. The water will be infiltrated into the groundwater basin where it can eventually be pumped and supplied to homes for drinking and non-drinking uses. Groundwater replenishment is the process of refilling and recharging groundwater aquifers with a water source that can eventually be pumped and supplied to homes for drinking. Spreading grounds can be layers of natural permeable materials that allow water to percolate underground to reach natural aquifers, or groundwater basins, that serve as large-capacity

storage. Currently, the San Fernando Groundwater Basin is replenished primarily by stormwater. The GWR project will augment stormwater capture with purified water for infiltration. The City is aggressively pursuing projects to optimize the use of recycled water in the City. Recycled water for non-drinking uses is produced through a multi-step process that includes breaking down debris and organic matter as well as chlorine disinfection to ensure the recycled water meets regulations. During the initial phase, the project would provide additional levels of treatment of recycled water, conveyance would entail the use of existing and newly constructed pipelines to transport the purified water to existing spreading grounds. The initial phase started with ozone demonstration project. The advanced water purification treatment process includes ozonation, biologically activated carbon (BAC), microfiltration (MF), reverse osmosis (RO), and/or advanced oxidation process (AOP), and post-treatment including pH control. Ozonation has been proven effective for reducing pathogens and mitigation of trace organic contaminants. The process can improve the efficiency and effectiveness of the MF process and increase the biodegradability of RO brine. LADWP produces 3,500 acre-feet per year of enhance recycled water for spreading. It addresses the immediate need to replenish the groundwater basin, and begins the spreading at the Hansen Spreading Grounds. The Hansen Spreading Grounds is designated as open space in the City of Los Angeles General Plan, and has an estimated maximum storage volume of 460 million gallons. Regarding the project timelines, based on the current schedule, the ozone equipment fabrication, delivery, and installation is scheduled to start in April 2019. The draft engineering report will be submitted to the Division of Drinking Water in March 2019. The full-scale operation and spreading will start in the summer 2019, pending permit approvals.

Yoshiko presented the regulatory process for the GWR Project. LADWP is currently working on the engineering report and waiting for the Regional Board Permit and Order for Water Recycling Requirements. They are still evaluating whether the full-scale project will consist of full advanced treatment (MF, RO and AOP) or an alternative advanced treatment system consisting of ozonation, BAC, and GAC with sidestream RO. LADWP and LASAN has conducted a 16-month pilot study. Joline completed her portion of the presentation showing the timeline of the project from the Phase 1 piloting in 2009 to full-scale operation anticipated by 2024.

Jeff described the initial phase of an outreach program, describing completed and planned activities, and focused his presentation on market research conducted in 2018. The market research included conducting 3 focus groups, a survey and one-on-one stakeholder interviews. Regular workshops were held to educate the involved boards, councils, stakeholders and the public on strategies and decision-making. The market research team reached out to City residents via various media and in different languages, and communicated with 20 stakeholder on key topics. The survey results indicated that 44% residents drinking filtered tap water, 39% residents drinking bottled water, and only 13% residents drinking unfiltered water straight from the tap. Support for the LA GWR Project increased after exposure to positive messages about it. Most voters are concerned about water issues as serious problems (64-65%), after housing and traffic concerns. Voters are also generally accepting of the use of recycled water, with the notable exception of drinking water. The research teams concluded that while obstacles do exist to achieve public acceptance of the GWR Project, careful messaging and strategic communications/engagement will increase support for it.

Joline and Yoshiko then briefly introduced the next steps of GWR Project, including issuance of an RFQ to select prequalified firms that will receive an RFP, installation of ozone equipment and start-up test, finalizing engineering report, obtaining all permits, and beginning spreading from the ozone demonstration plant.

One question posed about the impact of demographic changes in future years. Jeff predicted that the survey results that indicated that voters are not very likely to turn to Facebook or Twitter for information will change.

2. Guest Speaker: Water Reuse: The National, State and Local Recycled Water Revolution (*Paul Jones, WaterReuse Association President*)

Paul Jones has been the General Manager of Eastern Municipal Water District (EMWD) since 2011. He presented the water reuse potential nationwide and in California, describing a national water reuse paradigm shift, “One Water” focus, national trends, reuse in California, EMWD’s recycled water evolution, and the conclusions. A paradigm shift to expand potable water reuse is occurring. In past recycling programs, reuse was largely conducted in arid states, largely in the southwest US. Water supply augmentation was primary for irrigation purposes. Purple pipe systems consisted of centralized treatment and distribution. There was minimum recycling in other parts of country. The standard processes were to collect wastewater, move it quickly downstream, treat it to acceptable standards, and dispose/discharge without harming the environment. Currently, the new focus related to water supply. Treated wastewater is being reused to create new water supplies, and thereby reduce demands on limited traditional water supplies. The future of water management is to achieve a holistic, “One Water” approach. All water bodies within the state are under the California Water Code and viewed as a fungible resource. Impacts of present and future climate variability and change is creating more arid and semi-arid regions. Technology and the research/science of reuse of wastewater to augment existing water resources is a rapidly expanding for both non-potable and potable applications. Reuse regulations are also rapidly advancing. In addition, unprecedented factors play important roles. e.g. TMDLs for nutrients are more stringent in receiving waters and achieving corporate sustainability in order to create long-term stakeholder value is valuable in the implementation of a business strategy.

One Water is an integrated planning and implementation approach and this plan is a roadmap, connecting plans, ideas, and people to arrive at better and more fiscally responsible water planning solutions. One Water takes the collaborative approach to consider all of a city’s water resources from surface water, groundwater, potable water, wastewater, recycled water, dry-weather runoff, and stormwater. However, traditional waste disposal can be challenging. One Water planning is to develop tools and best methods for multi-use and multi-benefit projects and programs. A large portion of the future integration opportunities consist of major water recycling projects. Water recycling sources can be various, such as sewage, nuisance flow/storm water, industrial discharge, brackish or impaired waters, and graywater. Water recycling can also be in forms of traditional centralized, on-site treatment and reuse, decentralized treatment, or fit-for-purpose treatment. The recycled water has multiple usages including, but not limited to, irrigation, habitat, groundwater replenishment, surface water augmentation, industrial and commercial usage, and drinking potable reuse. So far, there have been dramatic changes in the national trends from a USGS comparison of 2017 with 2007. Water recycling is now conducted across the nation in the US. A recent market analysis by Bluefield Research indicates that total municipal reuse capacity will increase 37% over the next ten years (2017-2027). About 750,000 af of the increase will be in California with strong growth in Texas, Florida, Georgia, Colorado, Wyoming, North Dakota, and New York. Paul described one reuse project example in New York. The sewer discharge was the big driver for growth of water reuse. Reuse applications in apartments in Battery Park are applied to toilet flushing, cooling tower make-up water, landscape irrigation, and laundry. The goal is to reduce the buildings’ water use by 55% and reduce discharges to the city’s collection system by 60%. Another example is the direct potable reuse from Big Springs in Texas. At this point, it is the only raw water potable reuse project to be permitted in the US. In this raw water augmentation project, advanced treated recycled water is blended with lakes to produce a high-quality drinking water. The flow rate of the treatment is 16-MGD with MF, RO, and ultraviolet disinfection treatment processes. A third example was an industrial water reuse case in Frito-Lay Snack Food Plant in Casa Grande, AZ. The plant is running entirely on renewable energy and recycled water while producing nearly zero waste. They process water treatment of 650,000 gallon per day and the recovery system recycles up to 75 percent of the plant’s process water that reduces the company’s annual water use by 100 million gallons. The advanced purification system

incorporates screening, sedimentation, membrane bioreactor, activated carbon, ultraviolet, low pressure reverse osmosis, water stabilization and chlorine disinfection to treat the effluent to USEPA primary and secondary drinking water quality standards. This is the first US food processing plant that produces drinking water quality process water to be reused in food production. Paul also talked about the beer brewing industry using recycled water, which has attracted positive media attention. People were wondering how water can be cleaned. Thus, the conversation starts about water reuse, nature of water, water purification technologies, and showcases. Technology allows wastewater utilities to produce safe, purified, recycled water. This water meets drinking water standards and goes into the brew kettle.

What's the potential and future of reuse? It is predicted to be approximately a 750,000-af increase nationally, and 38% of increase will be in California. The California State Water Resources Control Board (SWRCB) recycled water policy goal for the growth of water reuse is 1.8 million afy from 2015 to 2030. Water reuse has been an important part of California's Water Plan. Paul shared a pie chart of 2015 recycled water use in state. He mentioned irrigation of farms and landscapes still account for the greatest use of recycled water, more than 65%, with agriculture alone accounting for nearly 40%. The second largest use of recycled water in California is groundwater recharge (24%) and water reuse as a seawater intrusion barrier is also groundwater recharge. Use of recycled water in industrial settings is increasing (11%). The potential of potable reuse is to provide an additional 1.1 million af of drinking water supplies.

In early 2017, the SWRCB issued a report to the California Legislature. AB 574 established a statutory deadline to develop a policy and sequential regulations for potable reuse that are consistent with the DPR report to the Legislature. It defined four subcategories of potable reuse: Groundwater Augmentation, Reservoir Augmentation, Raw Water Augmentation, and Treated Water Augmentation. AB 574 eliminated the confusing distinction between "indirect potable reuse" and "direct potable reuse" for groundwater replenishment and defines "potable reuse" as well as all of these subcategories. This bill also requires that the Board adopt statewide regulations for raw water augmentation, which is the planned placement of recycled water into a raw or untreated water distribution system serving a public water system, by 2021. If the Board cannot finalize the research and complete the regulations by that time, AB 574 allows the Board to extend the deadline by 18 months. If the Board still cannot complete the regulations for raw water augmentation, the Board must convene an expert panel to report to the legislature with recommendations. Per SB 918, groundwater augmentation and reservoir water augmentation are approved. Raw water augmentation is targeted in 2023 per both AB 574 and AB 292. And treated drinking water augmentation is planned for the future, likely between 2025 to 2028. Paul introduced several new and innovative projects in California. Those projects are Pure Water Monterey, San Francisco's on-site reuse mandate, Padre Dam's Advanced Water Purification East County, Pure Water San Diego, MWD/LACSD Regional Recycled Water Advanced Purification Center, and EMWD's Groundwater Reliability Plus program. He believed that people using similar logos and language for these facilities will help with public acceptance.

Paul presented four projects with more details. OneWaterSF operated by San Francisco Public Utilities Commission is one of leading programs, including purple pipe project and onsite non-potable water system. The City and County of San Francisco's recycled Water Ordinance requires property owners to install recycled water systems in new construction, modification, or remodel projects to maximize the use of recycled water. Featured projects include Harding Park Recycled Water Project in 2012, Pacifica Recycled Water Project in 2014, and Westside Enhanced Water Recycling Project in 2021. Associated facilities include centralized treatment facility, 12 miles of distribution pipelines, 1.9 million gallons of storage, and three pump stations, and current irrigation demand is approximately 2 MGD. Regarding the non-potable water program, the City and County of San Francisco adopted the Onsite Water Reuse for Commercial, Multi-family, and Mixed Use Development Ordinance, (known as the Non-potable Water Ordinance) in September

2012. It added Article 12C to the San Francisco Health Code, allowing for the collection, treatment, and use of alternate water sources for non-potable applications in individual buildings and at the district-scale. In July 2015, Article 12C became a mandatory requirement for all new construction of 250,000 square feet or more of gross floor area to treat and reuse available graywater, rainwater, and foundation drainage for toilet and urinal flushing and irrigation. Currently, there are 80 projects in various stages of design, permitting, and construction, and 18 of them are in operation.

The second example is Padre Dam Municipal Water District's project that exemplifies what a mid-size agency can do. Padre Dam has been a leader in water recycling for more than 50 years. The water recycling process began in Santee in the later 1950s followed by the opening of Santee Lakes Recreation Preserve in 1961. Padre Dam MWD operates the Santee Lakes Recreation Preserve, which is an award winning 190-acre park and campground surrounding scenic lakes filled with recycled water. The agency is serving 225 irrigation customers with 1,800 af of recycled water. Their Advanced Water Purification program will generate recycled water and create a potential new source of water that would be locally controlled, reliable, drought proof and environmentally sound. Then the program will increase the potable reuse supply to 24% by adding surface water augmentation at Lake Jennings reservoir (11.6 mgd). The full-scale program is moving forward and is expected to be completed by 2025, producing up to 12,900 acre-feet per year or 11.5 million gallons per day of new local drinking water supply to meet approximately 25-30% of East San Diego County's current drinking water demands. The ultimate buildout capacity will be 15.5 MGD of advanced water treatment.

The third example is Monterey One Water Project. Pure Water Monterey is a groundwater replenishment project that will replace 3,500 af of water that is currently being pumped out of the Carmel River. The advanced purified recycled water will be injected into the Seaside Basin for later extraction by California American Water Company. This project is treating and reusing a variety of wastewaters from the area for beneficial reuse. The water generated will not only diversify the water portfolio for the customers on the Monterey Peninsula but will also provide more water that can be used for agriculture irrigation. The agency, along with the Monterey County Water Resource Agency, developed this project to aid in the reduction of seawater intrusion into the Salinas Valley. The project facilities include source water diversion and storage, advanced water treatment plant, and product water conveyance and injection wells. Current it is in construction and will be online in September 2019.

The last example is EWMD's Groundwater Reliability Plus Program. EMWD has a long history of supplying safe, reliable, economical and environmentally sustainable water, wastewater and recycled water services, and it is an industry leader in recycled water. EMWD regularly uses 100% of its recycled water supply for beneficial use within its 555-square mile service area. The goal of the Groundwater Reliability Plus program is to improve the quality and quantity of the water in the local groundwater basins/aquifers. Paul briefly introduced the EMWD recycled water history from 1960's to 2003. EMWD has been treating wastewater within its service area since the 1960's. Back then, the treated effluent was disposed of through on-site percolation/evaporation ponds. In 1966, EMWD began marketing recycled water within its service area, delivering recycled water to local farmers for the irrigation of feed and fodder crops and began extending transmission facilities to deliver this recycled water to new customers. In 1991, EMWD applied for, and received funding through, the U.S. Bureau of Reclamation to develop a recycled water backbone transmission system, which greatly expanded EMWD's ability to deliver recycled water to a growing customer base. Beginning in 2003, system pressurization projects were implemented to provide the level of service required for municipal and industrial customers throughout the majority of the recycled water system. Paul continued to talk about the current non-potable uses that are in great demand, such as some common area landscape, recreational fields, golf courses, industrial uses, wetlands and habitat areas, and agricultural irrigation lands.

EMWD's potable water supply comes from local supplies (51%) and imported water (49%). Local supplies are from recycled water (35%), groundwater management (11%) and desalination efforts (5%), and imported supplies are from the Metropolitan Water District of Southern California through its Colorado River Aqueduct and its connections to the State Water Project. EMWD's Groundwater Reliability Plus program is aiming to enhance potable supplies, provide dry-year storage and improve water quality in the San Jacinto Basin. This program brings the benefits of supplying augmentation for the replenishment and groundwater dry-year storage and lowering the projected salinity levels in groundwater basin. Regarding the current and proposed operation, Groundwater Reliability Plus now includes a water banking project and a future proposed purified water replenishment project that combines advanced water purification and natural filtration. The related facilities, such as water supplies, conveyance facilities, recharge ponds, and pipelines have been proposed.

At the end of his presentation, Paul indicated that water recycling will be undergoing a significant growth nationally, and California is leading this expansion. Although California has challenging water recycling goals, various drivers and sources are there. He pointed out several drivers include holistic "One Water" focus, significant technology, research and regulatory advances, increased scarcity/climate variability and unprecedented public acceptance.

During the Q&A session, Paul mentioned that a major focus of the WaterReuse Association is looking for sources of funding.

3. **Water Recycling Legislative/Regulatory Updates (*Raymond Jay*)**

Raymond first listed 2019 California legislative date and the website for more details (<http://assembly.ca.gov/legislativedeadlines>).

SB166: Process Water Treatment Systems -onsite treatment and reuse of process water in breweries and wineries, introduced by Senator Wiener on January 28, 2019, amended in senate on March 21, 2019, and sponsored by SFPUC. The bill requires State Water Resources Control Board in consultation with Department of Public Health – Food and Drug Branch to adopt regulations for microbiological chemical, and physical water quality and treatment requirements for onsite treatment before 12/1/2025. The bill would require a process water treatment system in a brewery or winery to comply with the regulations within 2 years of the effective date of the regulations, and also require an entity that implements a process water treatment system in a brewery or winery to submit a report containing specified information to the department and to terminate the operation of, and modify to render inoperable, any process water treatment system in a brewery and winery at the direction of the State Board. Currently, WRCA is considering the concepts. Raymond is uncertain of the need for regulations, as they may already have pretreatment permit requirements. He is also uncertain if SB 166 is the highest priority for the limited State Board regulations staff.

AB 231: CEQA Exemption-Recycled Water - introduced by assembly member Mathis on January 17, 2019. This bill would exempt from CEQA a project to construct or expand a recycled water pipeline for the purpose of mitigating drought conditions for which a state of emergency was proclaimed by the Governor if the project meets specified criteria. This bill would also exempt from CEQA the development and approval of building standards by state agencies for recycled water systems. If the project consists of construction or expansion of a recycled water pipeline, directly related infrastructure must be within existing rights of way, and directly related groundwater replenishment must not affect wetlands or sensitive habitats. The project must also be on or adjacent to a critically overdrafted groundwater basin. The existing CEQA exemption for pipelines is less than one-mile.

AB 292: Recycled Water: raw water and groundwater augmentation - introduced by assembly member Quirk on January 28, 2019, amended twice in assembly on March 4, and March 6, 2019, and sponsored by WaterReuse California. This bill would eliminate the terms “direct” and “indirect” potable reuse, rename “indirect potable reuse for groundwater recharge” as “groundwater augmentation”, and clarify the 4 types of potable reuse as groundwater augmentation, reservoir water augmentation, raw water augmentation and treated drinking water augmentation. The bill would require the State Board to adopt uniform water recycling criteria for raw water augmentation before December 31, 2023. The bill would make conforming changes in other areas relating to potable reuse.

Regarding to other potential legislation, updates to Title 17 & 22 has raised several concerns, and all concerns from public agencies would like to be considered. WaterReuse is looking for authors and additional comments and real-world examples for Title 22 revisions.

Raymond updated the recycled water regulations. The Surface Water Augmentation Regulation was effective on October 1, 2018. Clean Water State Revolving Fund (CWSRF) Policy was adopted on November 6, 2018. Recycled Water Policy was adopted on December 11, 2018. CA-NV AWWA and CWEA signed an agreement to work together on the future Advanced Water Treatment (AWT) Operator Certification, and new exams are expected in spring 2019. The State Board is required to adopt standards for backflow protection and cross-connection control through the adoption of a policy handbook by January 1, 2020. Two additional workshops are anticipated. First meeting for Urban Water Advisory Group was scheduled in April. The first meeting of the Bioassay Implementation Advisory Group was productive, and their next meeting will be held in March or April. Detailed information of those activities can be found through their websites.

Raymond brief the Chapter on the Recycled Water Policy Amendment, which was adopted on December 11, 2018. The purpose of this policy is to increase the use of recycled water from municipal wastewater sources that implements state and federal water quality laws. The State Board expects to develop additional policies to encourage the use of stormwater, encourage water conservation, encourage the conjunctive use of surface and groundwater, and improve the use of local water supplies. This policy also describes permitting criteria that are intended to streamline the permitting of the vast majority of recycled water projects. Some concerns include minimizing wastewater treatment plant ocean discharges, recycled water tracking and reporting requirements, wastewater change petitions process, CEC and bioassay monitoring, QA/QC, and phased implementation. However, this policy does not address direct potable reuse. The modified policy was available on January 22, 2013, and the final policy has not yet posted.

At the federal level, there are seven remaining bills in the FY 2019. The House of Representatives held hearings focused on climate change presented by Natural Resources Committee and infrastructure issues presented by the Transportation and Infrastructure Committee in February 2019. President Trump picked David Bernhardt to be a lead in the Department of Interior. Andrew Wheeler is confirmed to lead EPA. Two recycled water legislations are proposed: H.R. 1162-Water Recycling Investment and Improvement Act, and H.R. 658 - National Infrastructure Development Act of 2019. Representative Napolitano introduced the Water Recycling Investment and Improvement Act to the House of Representatives on February 13, 2019 to assist water agencies with the expansion, planning, design, and building of water recycling plants and modernizing water infrastructure in California and other western states. H.R. 1162 increases funding authorization for the Bureau of Reclamation’s Title XVI water recycling competitive grand program from \$50 million to \$500 million, increases Title XVI federal funding ceiling from \$20 million to \$ 30 million, deletes funding priority for projects identified by U.S. Drought monitor or as a disaster area for the past four years,. The bill also makes the program permanent by removing the WIIN Act Title XVI which is expires in 2021 and removing the requirement for projects to be specifically named in appropriation legislation.

4. Regulatory Agency Update:

- **LA County Department of Public Health (Robert Bueras)**

Robert briefly introduced the golf course project and emphasized that the communications are important.

- **SWRCB Division of Drinking Water Programs (Saeed Hafeznezami)**

Saeed updated that surface water regulation has been adopted. DPR research is moving forward.

- **Los Angeles Regional Water Quality Control Board (Cris Morris)**

Cris Morris from the Regional Board explained that the recent Recycled Water Policy Amendment includes a goal to transfer any individual Water Recycling Requirements (WRRs) or enrollees covered under Regional Board General WRRs to the State Board General Order WQ 2014-0090-DWQ. Although the goal is to do that transfer within 3 years, the Los Angeles Regional Water Board has limited resources and must coordinate that effort with commitments to renew NPDES permits. Cris Morris' Watershed Regulatory Section has prepared an initial schedule to start that process. The first enrollees to be terminated will be the Long Beach Street Sweeping and the Valencia Water Company water stand. The WRRs for Moorpark and the Pomona Water Reclamation Plants will be worked on later this year and the WRR for the EC Little facility will be reviewed at the end of 2019 and beginning 2020. If any facility wants to submit their NOI earlier than the Regional Water Board's current plan, please contact Cris Morris at Cris.Morris@waterboards.ca.gov.

5. California State Section Update (Evelyn Cortez-Davis)

- New CA-NV AWWA/CWEA Advanced Water Treatment Operator Certification program will take applications starting Spring 2019. Signing up process is online at www.awtoperator.org
- Urban Water Institute Spring Conference from February 27, 2019 to March 1, 2019 in Hilton Palm Springs Hotel: Panel on 1211 Petitions and Update on MWD Regional Recycling Project. Info at www.urbanwater.com
- Report on Global Food Security: impact of water scarcity on availability of nutrient-dense food, role of water reuse will be released March 2019 www.fao.org
- Webcast available: "Community Engagement for Potable Reuse Success" Thu 2/14 2-3pm. Sign up at www.watereuse.org
- Send your concerns/questions that you want communicated to CA Section Board to your Chapter Trustee at: evelyn.cortez-davis@ladwp.com

6. Chapter Updates (Judi Miller)

- Approval of December 2018 Member Meeting Summary
- Volunteer Opportunities for newsletter committee chair, technical topics committee chair, and Chapter photographer

7. Focus Area: Funding Opportunities (Jared Lee for John Robinson)



The Bureau of Reclamation is making funding available through its WaterSMART Program for water and energy efficiency grants. These grants will be awarded to projects that will result in quantifiable and sustained water savings and support broader water reliability benefits.

8. Membership Roundtable (*Jared Lee*)

34th Annual WaterReuse Symposium will be held from September 8, 2019 to September 11, 2019 in Marriott Marquis San Diego Marina.

9. Next Meetings

- April 9, 2019 – Host: *City of Santa Monica*; Sponsor: *ARCADIS*
- June 11, 2019 – Host: TBD; Sponsor: TBD
- August 13, 2019 - Host: TBD; Sponsor: TBD

10. Adjournment.....1:30 p.m.

Los Angeles Chapter Officers for 2019/2021

Fred Gerringer, President	626-375-9389	fredg@trusselltech.com
Jared Lee, Vice President	626-379-8443	JLee@burbankca.gov
Judi Miller, Secretary/Treasurer	213-228-8236	judi.miller@jacobs.com
Evelyn Cortez-Davis, Chapter Trustee	213-367-3564	evelyn.cortez-davis@ladwp.com
Raymond Jay, Past-President	213-217-5777	rjay@mwdh2o.com

FIRST NAME	LAST NAME	ORGANIZATION
Harmik	Aghanian	ARCADIS
Maria	Alvarez	AECOM
Shadi	Bader	Santa Clarita Valley Water District
Erika	Bensch	LACSD
Matt	Bequette	LASAN
Carlos	Borjas	LA County Department of Public Health
Robert	Bueras	LA County Department of Public Health
Flor	Burrola	LASAN
Jaime	Burrola	Carollo Engineers
Kristin	Byrne	Brown and Caldwell
Gilbert	Chacon	Burbank Water and Power
Leny	Chávez	Carollo Engineers
Denise	Chow	LASAN

Los Angeles Chapter of the WaterReuse Association
February 12, 2019 MEETING SUMMARY



FIRST NAME	LAST NAME	ORGANIZATION
Cameron	Church	Weil Aquatronics
Cesar	Cortez	LASAN
Evelyn	Cortez-Davis	LADWP
Gil	Crozes	Carollo Engineers
Michael	De Ghetto	Glendale Water & Power
Brian	Dietrick	Woodard & Curran
Matt	Elsner	Woodard & Curran
Ufuk	Erdal	AECOM
Everett	Ferguson	WRD
Gerry	Filteau	SPI
Fred	Gerringer	Trussell Technologies
Karina	Gonzalez	LASAN
Clint	Granath	Forest Lawn
Saeed	Hafeznezami	SWRCB DDW
Ann	Heil	LACSD
Gil	Hurwitz	Black & Veatch
Jennifer	Jacobus	ESA
Humberto	Jaramillo	HDR
Azya	Jackson	LASAN
Raymond	Jay	Metropolitan Water District of Southern California
Don	Jones	Central Basin Municipal Water District
Paul	Jones	Eastern Municipal Water District
Sunny	Kim	Neotec
Sam	Landsman	CDM Smith
Elisa	Lee	Woodard & Curran
Jared	Lee	Burbank Water and Power
Jeong-Hee	Lim	LA Regional Water Quality Control Board
David	Lippman	Las Virgenes Municipal Water District
John	Lockett	LADWP
Therese	Marquez	The Solis Group
Danielle	Maurizio	LACSD
Kate	Melberg	LASAN

Los Angeles Chapter of the WaterReuse Association
February 12, 2019 MEETING SUMMARY



FIRST NAME	LAST NAME	ORGANIZATION
Enayet	Miah	LADWP
Judi	Miller	CH2M, now Jacobs
Cris	Morris	LA Regional Water Quality Control Board
Jeff	Mosher	Carollo Engineers
Jolene	Muñoz	LASAN
Thang (Vic)	Nguyen	DWR - Southern Region Office
Stephen	Opot	LASAN
Mariam	Panasyan	LASAN
Ludwing	Perez	ARCADIS
Roland	Pilemalm	Carollo Engineers
Julie Ann	Robinson	Glendale Water & Power
Mike	Ruiz	LASAN
Farzaneh	Shabani	LASAN
Eric	Smith	CDM Smith
Karen	Snyder	Katz & Associates
Camille	Stephens	Katz & Associates
Amy	So	LA Bureau of Engineering, EED
Laura	Southworth	Carollo Engineers
Dawn	Taffler	Kennedy/Jenks
Elise	Takebayashi	CDM Smith
Raja	Takidin	Glendale Water & Power
Dian	Tanuwidjaja	Long Beach Water Department
Tracy	Tate	LA BOE
Anthony	Tew	LADWP
Yoshiko	Tsunehara	LADWP
Tony	Umphenor	Burbank Water and Power
Glenn	van Eekout	LA County Department of Public Health
Alex	Waite	Brown and Caldwell
Joe	Walters	Purple Pipe Consulting
Dean	Wang	Long Beach Water Department
Sunny	Wang	City of Santa Monica
Ling	Wang-Staley	CH2M, now Jacobs

Los Angeles Chapter of the WaterReuse Association
February 12, 2019 MEETING SUMMARY



FIRST NAME	LAST NAME	ORGANIZATION
Ryan	White	Rowland Water District
Kevin	Yao	ARCADIS
Jason	Yim	Santa Clarita Valley Water District
Christina	Zimbalza	LASAN
Rick	Zimmer	Eurofins

TOTAL: 82