Los Angeles Chapter of the WateReuse Association

February 13, 2018 MEETING SUMMARY

Location:	West Basin Municipal Water District
Address:	17140 S. Avalon Boulevard, Suite 210 Carson, CA 90746
Purpose:	Bi-Monthly Meeting
Date and Time:	February 13, 2018 from 11:30 a.m. – 1:30 p.m.
Distribution:	Los Angeles WateReuse Association Chapter Members

Lunch: Sponsored by Brown and Caldwell

Below is a summary of the highlight from the February 2018, bimonthly member meeting of the Los Angeles Chapter of the WateReuse Association.

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

1. **Venue host presentation: 2018 Recycled Water Project Updates** *(Frank Fuchs/WBMWD)*

   The West Basin Municipal Water District is a public wholesale water agency that serves 1 million people in 17 cities and produces wholesale recycled water for its service area from Malibu to Rancho Palos Verdes. In 1995, the Water Recycling Facility in El Segundo was built for a 40-MGD capacity up to a tertiary treatment level with its source water derived from the Hyperion Water Reclamation Plant's (HWRP) secondary-treated effluent.

   An expansion of the recycled water delivery capacity from HWRP is underway with a pump station expansion to increase the pumping capacity from 70 MGD to 110 MGD. Additionally, a backup generator is being installed to maintain plant production during power outages. Currently, the pump station contains two 800-HP pumps and two 500-HP pumps. The treatment processes for the recycled water includes tertiary disinfection, nitrification, a single pass reverse osmosis (RO), a double pass RO, and advanced oxidation process (AOP).

   The recycled water is delivered mostly to irrigation customers as well as some industrial customers. To provide the additional 40 MGD of pumping capacity, two additional pumps rated at 800 HP will be installed. The schedule for the Hyperion Pump Station Expansion is dependent on the force main tie-in that includes a 60" wye connection, where a maximum of a 9-day shutdown is allotted of which the Contractor will have 7 days to install the wye connection despite rain events. This shutdown represents the amount of time that customers will endure a water shutdown where certain customers will receive water from a temporary potable backup system to meet their water needs during the 9-day shutdown. The Contractor would face steep liquidated-damages for delays to ensure that the construction schedule is maintained. During the shutdown period, inspections of the force main will be conducted while it is out of service. The Contractor for the Hyperion Pump Station Expansion is PCL Construction, the treatment plant operator is Suez, and the distribution system operator is the California Water Service Company.

   Upcoming connections for new customers include the Dominguez Technology Center in Carson, California which is over 300 acres in size. A dual distribution pipeline was constructed nearly 20

years ago is being considered for conversion to recycled water delivery. The other new customer is LA Stadium in Inglewood, where a stormwater retention pond is being considered to store recycled water to be used for irrigation throughout the site's landscaping, contingent on the treatment process employed for the pond's influent.

2. **Sponsor presentation: Building a Framework for Advanced Water Treatment Operator Training and Certification** *(Wendy Broley/Brown and Caldwell)*

The California Urban Water Agency (CUWA) collectively serves drinking water to the majority of California and is involved in planning for the implementation of potable water reuse in the state. Training and certification for potable reuse operators is critical to maintaining the quality of potable reuse treatment. This certification will provide confidence to the public in that those operating the facilities are capable. Currently, exams do not cover advanced treatment or potable reuse concerns including more robust treatment trains, unique operation and maintenance, as well as enhanced risk.

A CUWA white paper, coordinated with WateReuse and AWWA California/Nevada, analyzed data collected from utility representatives experienced in operating potable reuse facilities. The purpose of the investigation is to determine a direction for a potable reuse framework. Current operator certification programs include one track for wastewater with five levels and two tracks for drinking water with five levels.

Four options were considered for the training and certification. The preferred option was a hybrid approach where a supplement is offered for water and wastewater certifications. Industry stakeholders' opinions concluded that understanding both the wastewater and water regulations is important. Advanced water treatment training would be applied to either water or wastewater license and one test would be provided to ensure operators in either water or wastewater can cover gaps in knowledge. The hybrid approach also insures an adequate attendance for the training and certification. The training would place an emphasis on advanced treatment including ozone and biologically activated carbon (BAC), membrane filtration (MF/UF), RO, AOP and ultraviolet (UV) disinfection.

AWWA California/Nevada and CWEA are collaborating to implement the program for advanced water treatment. Workshops with subject matter experts are ongoing, and if the hybrid approach for operator training and certification is approved, these exams will be available starting in 2019. Currently, Hazen and Sawyer and Carollo are developing curricula for advanced treatment in direct potable reuse (DPR) applications through the Water Reuse Research Foundation (WRRF 15-05).

3. **Technical Topic: Adapting to Change: Utility Systems and Declining Flows** *(Wendy Broley/Brown and Caldwell)*

Declining flows are a new concern resulting from the implementation of conservation programs for water supply reliability. Due to the recent drought, the governor issued a mandate for a 25% reduction in water use statewide, and there was an observed impact on wastewater flows. A holistic approach to water supply management and challenges was considered using the data on the effect of declining flows and how this corresponds with the availability of reuse water.

Although water use is critical, water use efficiency should be considered for the interconnected water supply in order to more effectively understand future water use.

Benefits of water conservation include many environmental benefits and greater water supply storage. The impacts of water conservation include diminishing wastewater quality as well as drinking water distribution pipeline durability concerns. A white paper was developed through a collaboration by the CA WateReuse, Water Research Foundation, Association of Sanitation Agencies (CASA), Association of Clean Water Agencies (ACWA) as well as the CA Water Environment Association (CWEA). Nearly 300 representative viewpoints were captured in the literature review in order to inform which impacts occurred due to water conservation efforts. The diverse viewpoints were those from water services and reuse water services that are geographically diverse across the state of California. Those that observed impacts included 74 distinct utilities, where eight of these utilities were interviewed in more detail. Nearly half of those surveyed experienced impacts including financial investments and changes to processes. Impacts to water distribution systems included water quality, water age, nitrification, and reduction in chlorine residuals; more distribution flushing was necessary. Impacts to wastewater conveyance systems included settling and hydrogen sulfide production which led to increased odor and corrosion, creating additional operation and maintenance concerns. For wastewater treatment, there were observed changes in influent water quality. For recycled water, there were similar observations in influent water quality as well as reduction in recycled water production.

The end goal is to find the right balance between water conservation and the diversification of water resources, including potable reuse. Currently, much treated wastewater is discharged into the ocean. If this resource was instead applied for potable water reuse, how would this affect the diversification of water resources, and, would water conservation efforts need to be as strict? A negative impact of water conservation included the reduction of the availability of reuse water. One of the differentiations to be made in the future is how water conservation efforts should correspond with water reuse moving forward for the most positive impact in terms of reliability for all treatment, distribution, conveyance and storage systems.

The white paper may be downloaded at www.cuwa.org

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

California Legislation

- **AB 1668: Water Management Planning (Friedman) –** the timeline is coming up to meet the "20 by 2020" water conservation goals. This bill would require that the State Water Resources Control Board develop conservation standards by 6/30/2021. They are considering setting an initial indoor residential use target of 55 gallons per capita per day (gpcd), and recycled water would be credited 10% toward water use efficiency targets. WateReuse is working with others on proposed modifications to this bill.
- **SB 966: Onsite Treated Nonpotable Water Systems (Weiner)** – This bill attempts to ensure that regulations relating to the use of greywater, rainwater, stormwater, blackwater, condensate and building foundation drainage water are risk-based. WateReuse had concerns that this could negatively impact adoption of DPR regulations.

- **AB 2072: SWRCB: Contaminants of Emerging Concern (Quirk)** – Includes a research program to provide funding to research the presence and impact of CECs on the environment and human health.

Other Legislation

- AB 2042 – Providing a cash incentive for residential graywater reuse systems
- SB 558 – Property taxation; tax credit for new rainwater treatment systems
- SB 952 – Water conservation; no impact for local supplies
- SB 979 – Water Quality, Supply, and Infrastructure Improvement Act of 2014; funding regulation

Upcoming Regulatory Actions

- Regulation of waste and unreasonable water uses
    - No irrigation of turf on public medians and parkways after 2025 unless using recycled water from systems installed prior to 2018
- Recycled water policy update
    - Will include recycled water goals, tracking, and survey
    - Clarification for Clean Water Act Section 1211- Wastewater Change Petition and SNMP implementation and coordination with agriculture and groundwater sustainability programs
    - Update CEC monitoring requirements
    - Consider antibiotic resistant bacteria and microplastics
- Recycled water survey – potential changes include:
    - State Board considering revising goals.
    - Reporting requirement to once-a- year and standardized throughout the state and
    - Provide credit for in-stream beneficial use of recycled water
- Surface water augmentation regulations
- Evaluate recycled water use for animals
- Onsite wastewater treatment system

Federal Update

- Proposed Infrastructure Plan – $1.5 trillion over next decade ($200 billion Federal) with $100 billion state incentives at a maximum of $10 billion per state and 20% per project; 50% from state and local investment; streamlined permitting and 25% towards rural infrastructure
- Proposed Legislation
    - HR 4492 – Water Infrastructure Finance and Innovation Reauthorization Act of 2019

- S 2346 – Water Infrastructure Workforce Development
- HR 4902/ S 2364 – SRF WIN Act

5. **Regulatory Agency Update**:
   a. Los Angeles County Department of Public Health *(Robert Bueras)*
      - Agricultural cannabis application for water usage. Consumption up to 60 acre-feet per year for a single site in LA County limits, including cultivator and grow rooms.
   b. Los Angeles Regional Water Quality Control Board *(Elizabeth Erickson)*
      - Elizabeth provided the following update on LA Regional Board activities:
      - The Board's water rights unit is clarifying issues of water rights and is involved in a number of law suits from agencies on reuse.
      - Reviewing CEC report for impacts locally.
      - Waiting for engineering report from City of LA for overview of the GW replenishment project in San Fernando Valley.
      - Ramping up injection for sea water barrier and is increased to 12 MGD of recycled water.
      - Sanitation Districts approved for facility grit program.
      - Engineering report approved in January for treated water that is injected and can be discharged into the river. Addressing water rights issues in San Gabriel Valley.
      - West Basin MWD's NPDES scheduled to be addressed in April.
      - A permit for West Basin's Carson facility and a satellite plant's brine solutions discharge is underway.
      - Oxnard received their AWT permit and is planning to do DPR.
      - Scheduled for this month but delayed and going public with a program that injects water with a two-month retention for initial use for irrigation and later for domestic services.
      - The Executive Officer has not retired but is planning to retire.
      - Cris Morris is the head of the Watershed Regulatory Unit.
   c. SWRCB Division of Drinking Water Programs *(Saeedreza Hafeznezami)*
      - DDW is the recycled water permitting lead for potable reuse projects in California, and the unit is growing. Saeed is the primary point of contact for LA County.
      - The Recycled Water Policy is in the process of revision and there will be meetings throughout 2018 in order to complete the revisions.

6. **California State Section Update** *(Monica Gasca)*
   - California annual conference is March 25-27 in Monterey; WateReuse Association members registration fee is $500 (price has increased since last year).
   - Abstracts for the WateReuse Symposium are due March 9.
   - The WateReuse California Board has new officers including Rich Nagel of CH2M (now JACOBS) for President, with Grant Davis as Past President.
   - WateReuse California and the Southern California Salinity Coalition released a white paper addressing concerns about salinity leaching from recycled water used for landscape irrigation.

7. **Chapter Updates** (*Judi Miller)*
    a. Approval of October 2017 Member Meeting summary
        - December 2017 Member Meeting Summary was approved with all in favor.

8. **Membership Roundtable** *(Fred Gerringer)*

    - Joe Walters of Purple Pipe Consulting announced that Central Basin Municipal Water District has developed a public outreach tool consisting of a $7 flash drive containing information and forms for use by customers converting to recycled water use.

9. **Next Meetings**
    - April 10, 2018 – Host: *Long Beach Water Department*; Sponsor: *HDR*
    - June 12, 2018 – Host: *Burbank Water & Power;* Sponsor: *Burbank Water & Power*

Los Angeles Chapter Officers for 2018

Raymond Jay, President	213-217-5777	rjay@mwdh2o.com
Fred Gerringer, Vice President	626-463-0390	fredg@trusselltech.com
Judi Miller, Secretary/Treasurer	213-228-8236	judi.miller@ch2m.com
Monica Gasca, Chapter Trustee	562-908-4288 x3508	mgasca@lacsd.org
John Robinson, Past-President	626-375-9389	jrobinson@johnrobinsonconsulting.com

Meeting Attendees

MEMBER		ORGANIZATION
Tracy	Abundez	Metropolitan Water District of Southern California
John	Alvarado	West Basin MWD
Dan	Bacani	LA County DPH
Shadi	Bader	Castaic Lake Water Agency
Erika	Bensch	LACSD
Matthew	Bequette	LASAN
Carlos	Borja	LA County Department of Public Health
Wendy	Broley	Brown and Caldwell
Robert	Bueras	LA County Department of Public Health
Rene	Carillo	LA BOE
Susan	Chang	LASAN
Paul	Chau	Kennedy/Jenks
Cecille	Coronel	LADWP
Roy	Daly	LG NanoH2O
Brian	Dietrick	Woodard & Curran
Matt	Elsner	Woodard & Curran
Ufuk	Erdal	AECOM
Elizabeth	Erickson	LA Regional Water Quality Control Board
Gerry	Filteau	SPI
Steve	Friedman	HDR
Frank	Fuchs	West Basin MWD

MEMBER		ORGANIZATION
Monica	Gasca	Sanitation Districts of Los Angeles County
Diane	Gatza	WRD
Fred	Gerringer	Trussell Technologies
Elise	Goldman	West Basin MWD
Clint	Granath	Forest Lawn
Slavica	Hammond	Parsons
Cory	Heggtveit	Tetra Tech
Nicole	Horton	City of Pomona
Jinny	Huang	Long Beach Water Department
Raymond	Jay	Metropolitan Water District of Southern California
Donald	Jones	Central Basin Municipal Water District
Sunny	Kim	Neotec
Jewls	Lagman	LASAN
Joseph	Le	LADWP
Jared	Lee	Burbank Water and Power
Lin	Li	LASAN
David	Lippman	Las Virgenes MWD
Danielle	Maurizio	LACSD
Kimberly	McGeeney	Metropolitan Water District of Southern California
Alex	Mena	LA County Department of Parks and Recreation
Enayet	Miah	LADWP
Judi	Miller	CH2M, now Jacobs
Ray	Mokhtari	Metropolitan Water District of Southern California
Monica	Morales	CH2M, now Jacobs
Ajish	Nambiar	Parsons
Shavon	Paige	LADWP
Mariam	Panasyan	LASAN
Melanie	Rivera	Kennedy/Jenks
Julie Ann	Robinson	Glendale Water & Power
Cheryl	Ross	West Basin MWD
Bertha	Ruiz-Hoffman	LA County Department of Parks and Recreation
Eric	Schlageter	Las Virgenes MWD
Eric	Smith	CDM Smith
Jim	Smith	LA County Department of Parks and Recreation
Karen	Snyder	Katz and Associates
Camille	Stephens	Katz and Associates
Bashar	Subeh	LA County Waterworks
Dian	Tanuwidjaja	Long Beach Water Department
McCauley	Taylor	Brown and Caldwell
Andrew	Tran	City of Pomona
Christine	Tran	LADWP
Reymundo	Trejo	SAFNA Engineering and Consulting
Yoshiko	Tsunehara	LADWP
Glenn	Van Eekhout	LA County DPH

MEMBER		ORGANIZATION
Alex	Waite	Brown and Caldwell
Joe	Walters	Purple Pipe Consulting
Dean	Wang	Long Beach Water Department
Sunny	Wang	Brown and Caldwell
Zita	Yu	West Basin MWD
Feng	Zheng	LASAN
John	Zhao	Las Virgenes MWD

TOTAL: 72