Los Angeles Chapter of the WateReuse Association

August 8, 2017 MEETING SUMMARY

Location:	Glendale Civic Auditorium
Address:	1401 N Verdugo Rd Glendale, CA 91208
Purpose:	Bi-Monthly Meeting
Date and Time:	August 8, 2017 from 11:30 a.m. – 1:30 p.m.
Distribution:	Los Angeles WateReuse Association Chapter Members

Lunch: Sponsored by Rain Bird

Below is a summary of the highlight from the August 2017, 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: GWP – Recycled Water Update** *(Michael De Ghetto/Glendale Water and Power)*

   The City of Glendale (City) was incorporated in 1906 and is the third largest city in LA County, with approximately 200,000 residents and 34,000 water services. The City was one of the founding MWD Member Agencies in 1928, and currently boasts 30% - 40% use of local water supply. This local supply consists primarily of groundwater from the San Fernando Basin (29%) and groundwater from the Verdugo Basin (6%), in addition to recycled water.

   The City has been a pioneer in recycled water since 1978, when recycled water use was first introduced. In 1976, the City became a co-owner of the Glendale Water Reclamation Plant and in 1978, the first use of recycled water was for cooling towers at Glendale Water and Power's (GWP) Grayson Power Plant. The City then invested over $20 million in recycled water system expansion projects over the following decades. Today, recycled water is used to meet over 7% of the City's water demand.

   The City's leadership in recycled water was made possible through regional cooperation between the City and Los Angeles starting in 1968 for regional reclamation facilities. This cooperation allowed for the completion of the Glendale-LADWP Bette Davis Project in 2015, which extends the City's recycled water system to serve portions of Griffith Park. Today, regional cooperation continues for the ULARA Salt and Nutrient Management Plan.

   The City's recycled water system consists of approximately 21 miles of recycled water mains, 6 pump stations, 5 storage tanks, and 78 recycled water meters, in addition to irrigation, dual-plumbing, and dust control. The City is hopeful to serve as many customers as possible with recycled water, as long as initial and routine inspections occur to ensure no cross connections are present.

   Currently, the City's recycled water projects consist of seven service connections for three Glendale Public Schools: Hoover, Keppel, and Toll. However, the long grant funding process and change of staff within the schools have delayed construction. Other planned recycled water

expansions within the City consist of the Glendale Tee project, and connections to the city of Pasadena.

Some lessons concerning recycled water the City has learned from the drought is that mandatory watering restrictions can inadvertently affect recycled water use. This is because customers believe the restrictions also applied to recycled water, ultimately leading to a large drop in recycled water revenue. Additionally, recycled system percent availability becomes more critical with dual plumbed buildings versus irrigation.

2. **Sponsor presentation: Optimizing the Energy Efficient Rain Bird Pump Stations** *(Martin Armstrong/Rain Bird)*

Martin Armstrong is a licensed landscape architect with Rain Bird and has 25 years of experience in landscape and irrigation, working on pumps throughout California.

Rain Bird began its manufacturing in Sweden in 1988, and its first Variable Frequency Drive (VFD) was produced in 1990. In 1998, Rain Bird began selling pump stations in the USA and opened a manufacturing facility in Arizona in 2004. Today, Rain Bird manufactures a variety of pump stations, among which are popular off-the-shelf stations for recycled water irrigation systems.

All of Rain Bird's pumps have VFDs, greatly improving pump station efficiency. VFDs often aid in both drought and energy savings. Pumps purchased from Rain Bird come with a 3-year warranty.

3. **Technical Topic: Surface Water Augmentation Regulations** *(Fred Gerringer/Trussell Technologies)*

Surface Water Augmentation is the intentional placement of recycled water into a reservoir that supplies drinking water. The reservoir as an environmental buffer constitutes the largest difference between Surface Water Augmentation and Groundwater Augmentation. The State Water Resources Control Board Department of Drinking Water recently released Draft Surface Water Augmentation regulations. The regulations build off the groundwater recharge regulations, with a few changes to the following topics: chemicals of emerging concern (CECs); pathogens; treatment; and reservoir-specific considerations.

The following considerations are covered by the new regulations:

- Chemical Requirements – must consider the fact that surface water reservoirs are less likely to degrade chemicals
    - Drinking water standards: MCLs; notification levels
    - Control of unregulated chemicals, pharmaceuticals, personal care products, fire retardants
- Pathogen Requirements – regulations are the same as for groundwater regulations
    - Virus 12-log removal; Giardia 10-log removal; Cryptosporidium 10-log removal
- Treatment Requirements – unlike groundwater regulations, surface water augmentation requires full advanced treatment for surface spreading as part of a multiple barrier approach
    - Full advanced treatment: reverse osmosis; advanced oxidation

- Multiple barriers: max 6-log removal for a single process; min 3 processes with greater than or equal to 1.0-log removal

- Reservoir-specific considerations
  - Short circuiting in reservoirs is more likely than for groundwater
  - Default retention time requirement is 180 days; however, an additional 1-log removal is required if retention time is less than 120 days. The minimum retention time to be approved is 60 days.
  - Dilution (minimum of 24 hours): 100:1 dilution, with a maximum of 1% of inlet flow at the outlet; 10:1 dilution with an additional 1-log removal for cases of 10% of inlet flow at the outlet
  - Credits given for drinking water treatment plant

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

California Legislation

- AB 574: Potable Reuse is sponsored by WateReuse and Coast Keeper. This bill deletes the references to Direct and Indirect Potable Reuse and specifies four different types of potable reuse including groundwater augmentation, reservoir augmentation, raw water augmentation, and treated water augmentation. It recommends the SWRCB establish a framework for regulating potable reuse by 6/1/18 and requires SWRCB to adopt uniform water recycling criteria for raw water augmentation by 12/31/21. The bill is proposed to be adopted under emergency regulations to help it move through the administrative process but will still have a formal public comment period. There is no formal opposition and has broad support.

  MWD has submitted an amendment to clarify the definition of reservoir augmentation to include a constructed system conveying water to the reservoir. There was a discharge to one of the aqueducts that was regulated not as recycled water but as a wastewater discharge which caused some concern. MWD wants to broaden the category to include infrastructure leading to the reservoir.

- AB 869: Sustainable Water Use – Recycled Water aims to make sure that recycled water is not impacted by conservation goals and how they are calculated. Recycled water should be a credit and not part of the per capita water use.

- SB 5: California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 – New $3.5M bond with $500M for drinking water programs and $125M for recycled water.

- AB 967: Human Remains Disposal allows for a new type of cremation service done through dissolving the body that allows it to be discharged to a wastewater treatment plant. WateReuse has not taken a position but was concerned when a similar bill was introduced several years ago. The bill has not received much traction but may go through and there are several other states that do it.

- Proposed Water Use Efficiency Bill (Skinner/Hertzberg): Urban water suppliers are to submit water use targets and current water use to DWR by January 1, 2021. Recycled

water distributors are to calculate water use targets for residential interior, exterior, CII, and leaks (leak standards include recycled water). Variance that allows recycled water to be applied at an appropriate agronomic rate shall be considered, and the standard shall be based on MWELO. SWRCB shall adopt variances to standards by January 1, 2020.

Federal Legislation

- HR 23 – Gaining Responsibility on Water Act of 2017
- HR 434 – New Water Act
- HR 465 – Water Quality Improvement Act of 2017
- HR 875 – USBR Water Project Streamlining Act
- HR 1579 – Secure and Resilient Water Systems Act
- HR 1654 – Water Supply Permitting Coordination Act
- HR 1663 – Water Resources Research Amendments Act
- HR 2799 – Western Water Recycling and Drought Act
- HR 3248 – Water Advanced Technologies for Efficient Use
- S 216 – Bureau of Reclamation Transparency Act
- S 880 – Made in America Water Infrastructure Act
- S 692 – Water Infrastructure Flexibility Act
- S 1137 – Clean Safe Reliable Water Infrastructure

2017 Regulatory Actions

- Surface Water Augmentation regulations
- Evaluate recycled water use for animals
- Recycled Water Policy Update
- Mandatory RW Building Standards
- On-site Treatment System Policy

Recycled Water Policy Update – CECs

- Updated Constituents of Emerging Concern monitoring requirements
    - CEC assessment expanded to cover Title 22 and surface water augmentation applications
    - Provide recommendations for additional research including antibiotic resistant bacteria and micro-plastics

5. **Regulatory Agency Update**:
    a. **Los Angeles County Department of Public Health** *(Carlos Borja)*
        - Recycled water regulations for county: currently, the department has several contracts with different water utilities to work on testing backflow devices at their service connections.

b. **Los Angeles Regional Water Quality Control Board** *(Veronica Cuevas)*
   - The July 7 notice of applicability was sent to Los Angeles Sanitation Districts, but will not go into effect until the existing discharge permit is terminated at the Whittier Narrows WRP. Email Cris Morris or Raul Medina for more information.

6. **California State Section Update** *(Monica Gasca)*
   - The Annual Symposium in Phoenix will be on September 10-13. The California Board meeting is August 18. Monica will give a presentation on the chapter's updates.

7. **Chapter Updates**
   a. Approval of June 2017 Member Meeting summary *(Raymond Jay)*
      - June 2017 Member Meeting Summary was approved without opposition.
   b. There is currently a volunteer opportunity to prepare the LA WateReuse Chapter's poster for next year.

8. **Focus Areas**
   a. Funding Opportunities *(Raymond Jay and John Robinson)*
      - A summary of funding opportunities has been prepared. There is new funding available through LRP, Prop 1, IWRM, and WIFIA.

9. **Membership Roundtable** *(Fred Gerringer)*
   - The IWA reuse conference showed what issues countries are dealing with internationally concerning water and power, which greatly differed from California's issues. The primary issue for potable water seemed to be pathogens according to specialists.
   - There is a new WateReuse chapter formed for Central California, which includes Ventura County up to Monterey. They are currently looking for volunteers to be on the awards committee to look over award applications.

10. **Next Meetings**
   - October 10, 2017 – Host: Los Angeles Bureau of Sanitation; Sponsor: CH2M
   - December 5, 2017 – Host: Metropolitan Water District of Southern CA; Sponsor: Stantec

Los Angeles Chapter Officers for 2016

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 x2838	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
Michael	Adelman	MWH/Stantec
Mike	Agbodo	Black & Veatch
Carlos	Aguilar	CA Water Technologies
Shahnawaz	Ahmed	SA Associates
John	Alvarado	West Basin MWD
Jenny	Anderson	Valencia Water Company
Julia	Aranda	MNS Engineering
Max	Armenta	Kennedy Jenks
Martin	Armstrong	Rain Bird
Shadi	Bader	Castaic Lake Water Agency
Hélène	Baribeau	AQUAlity Engineering
Erika	Bensch	LACSD
Richard	Bischette	Woodard & Curran
Carlos	Borja	LA County Department of Public Health
Gilbert	Chacon	Burbank Water and Power
Paul	Chau	Kennedy Jenks
Run	Chen	Burbank Water and Power
Cecille	Coronel	LADWP
Veronica	Cuevas	LA Regional Water Quality Control Board
Nataly	Dakak	LASAN
Michael	De Ghetto	Glendale Water & Power
Matt	Elsner	Woodard & Curran
Miah	Enayef	LADWP
Gerry	Filteau	SPI
Monica	Gasca	Sanitation Districts of Los Angeles County
Fred	Gerringer	Trussell Technologies
Elise	Goldman	West Basin MWD
Roman	Gonzalez	Central Basin MWD
Raymond	Jay	Metropolitan Water District of Southern California
Donald	Jones	Central Basin MWD

MEMBER		ORGANIZATION
Sunny	Kim	Neotec
Jacque	Kootz	Central Basin MWD
Joseph	Le	LADWP
Jared	Lee	Burbank Water and Power
David	Lippman	Las Virgenes MWD
John	Lockett	LADWP
Kerry	McCorkle	LADWP
Alex	Mena	LA County Department of Parks and Recreation
Judi	Miller	CH2M
Dusty	Moiso	Rowland Water Company
Ray	Mokhtari	Metropolitan Water District of Southern California
Tom	Monk	Walnut Valley Water District
Joline	Munoz	LASAN
Stephen	Opot	LASAN
Mariam	Panasyan	LASAN
Nik	Reppuhn	LA County Department of Public Works
Melanie	Rivera	Kennedy Jenks
John	Robinson	John Robinson Consulting, Inc.
Julie Ann	Robinson	Glendale Water & Power
James	Saenz	Glendale Water & Power
Eric	Schlageter	Las Virgenes MWD
Elizabeth	Sobczak	Castaic Lake Water Agency
Austin	Strauss	LADWP
Raja	Takidin	Glendale Water & Power
Shieva	Tat	LASAN
Tony	Umphenour	Burbank Water and Power
Jennifer	Valdez	LADWP
Roumiana	Voutchkova	City of Pasadena
Joe	Walters	Purple Pipe Consulting
Cayla	Whiteside	Kennedy Jenks
Inge	Wiersema	Carollo
Bob	Yamaguchi	Walnut Valley Water District

MEMBER		ORGANIZATION
Jason	Yim	Castaic Lake Water Agency
Rick	Zimmer	Eurofins
Total:	**65**	