

**Location:** Water Replenishment District of Southern California  
**Address:** Albert Robles Center (ARC) for Water Recycling and Environmental Learning  
4320 San Gabriel River Pkwy  
Pico Rivera, CA 90660

**Purpose:** Bi-Monthly Meeting  
**Date and Time:** October 8, 2019 from 11:30 a.m. – 1:30 p.m.  
**Distribution:** Los Angeles WaterReuse Association Chapter Members and Supporters

**Lunch: Sponsored by Water Replenishment District of Southern California (WRD)**

Below is a summary of the highlight from the October 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/Sponsor Presentation: WRD’s 60 Years of Groundwater Replenishment – Everett Ferguson /WRD**

The presentation provided an overview of WRD, history of recycled water, WRD’s Water Independence Now (WIN) Program, and WRD’s replenishment source water portfolio from 1950-2020, and on-going/future projects. Provided below is a summary of the presentation.

WRD was formed in 1959 by a vote of the people. WRD is a special district in charge of Groundwater Management and Replenishment for 43 cities within 420 square miles in Southern Los Angeles County. The two basins that WRD oversees are the Central and the West Coast Basins. The presentation covered the progress, in a chronological order, of WRD since its inception for managing and protecting groundwater resources. Managing and protecting the groundwater resource was needed as over pumping of groundwater resulted seawater intrusion, contaminating water wells from El Segundo to Long Beach, and threatened to deplete groundwater resource as one of major water sources for meeting the water needs of the thousands of businesses and 2.5 million residents living in the area in 1959.

At the beginning of its operation in 1959, WRD’s mission was:

- Restore and maintain the depleted groundwater basins
- Prevent seawater intrusion
- Curtail over-pumping of groundwater

Falling groundwater levels in the basin were detected in 1905. Southern California Edison had to abandon pumping in Redondo Beach in 1912, in Hermosa Beach in 1915 and in El Segundo in 1921 due to salt water contamination. WRD’s service area population was 590,000 in 1930. One of the first steps to help replenish the groundwater basins was taken by the LA Flood Control District back in the late 1930s by establishing two spreading basins to capture more rainfall to percolate into the ground. These basins are now known as the San Gabriel River and Rio Hondo Spreading Grounds –

collectively the Montebello Forebay Spreading Grounds. The drought cycle that had persisted in southern California since 1941 coincided with the most explosive population growth than any other region of the country. WRD's service area population grew from 590,000 in 1930 to 1,017,000 in 1940, to nearly 2,000,000 by the 1950s.

The demand for water increased to meet the need for ever growing agriculture in the agricultural capital of California. The urbanization that triggered increased water demand also decreased natural recharge. Furthermore, the construction of concrete lining of the Los Angeles River for flood protection in the 1939 further reduced the natural infiltration to the groundwater. Historically, the natural supply of water to the groundwater decreased but the demand for groundwater increased. By 1959, the rate of withdrawal of groundwater was two times the rate of replenishment through percolation of rain water and captured stormwater. This is the time when the Water Replenishment District of Southern California (WRD) was formed.

Los Angeles started receiving water deliveries from Metropolitan Water District's newly built Colorado River Aqueduct and so imported water was introduced to the spreading grounds in 1952. Other imported water resources started in 1974 with the State Water Project delivering water from the Bay Delta in Northern California as an additional source of replenishment water.

In 1951, the West Basin Water Association sponsored legislation to appropriate funds to study seawater intrusion and implement methods to prevent it. In 1953, the West Basin Experimental Project (West Coast Basin Barrier Project) began. Using the 1951 legislation, the Board of Supervisors created temporary Conservation Zones to assess a property tax to finance the purchase of imported water for spreading and barrier injection.

A Landmark Study "The Reclamation of Water from Sewage and Industrial Waste" was completed in 1948 to test the large-scale feasibility of using treated wastewater as an artificial replenishment supply for the basins. Based on the results of the study, the newly-formed WRD decided to invest in what became the Whittier Narrows Water Reclamation Plant (WNWRP). This was the first water reclamation plant in the world built for the specific purpose of producing recycled water for groundwater replenishment. In 1962, the WNWRP began operation as a water source for seawater barrier injection and infiltration at the spreading grounds. The Alamitos Seawater Barrier in Long Beach was completed in 1965. The West Coast Barrier and the Dominguez Gap Barrier in Los Angeles were completed in 1969 and 1971, respectively.

In 1965, the court order (Judgment) was established which allocated the pumping right annually from each basin. This was a major step towards maintaining healthy reserves of groundwater in basins. Early in its history, WRD relied mainly on imported water only to offset the demands of groundwater withdrawal. Imported water was used to percolate into the spreading grounds in the Central Basin and was injected into the expanding barrier system along the coast to prevent the seawater intrusion and replenish both the Central and West Coast Basins. With imported water supply subject to drought and regulatory constraints, as well as increasing costs, it became apparent that there was a need to identify alternate sources of water to replace imported water with a sustainable, local supply.

WRD's mission has been to reduce dependence on imported water for artificial replenishment by increasing local water supply. WRD, along with the Los Angeles County of Flood Control District and the Sanitation Districts of Los Angeles County, increased the emphasis on recycled water as a source of water supply for groundwater replenishment.

In 2004, WRD initiated the WIN program, which is a guiding principle for WRD's approach to water supply for groundwater replenishment. The goal of the WIN program is to become fully independent

from imported water to meet its groundwater replenishment needs. The WIN projects include enhancing stormwater capture and producing advanced treated recycled water for injection into the seawater barriers and for delivery to the Rio Hondo and San Gabriel River spreading grounds.

By 2015, the use of 100% Recycled Water was allowed at the Alamitos & West Coast Basin Barriers. In 2016, the City of Los Angeles permit for the Dominguez Gap Barrier allowed the use of 100% Recycled Water.

The final step toward achieving the WIN objective was the study and subsequent pilot testing of treatment alternatives to use reverse osmosis treatment to increase the spreading of recycled water in the Montebello Forebay. These were the path forward steps for WRD's Groundwater Reliability Improvement Program (GRIP). In 2019, construction of GRIP, which was re-named the Albert Robles Center for Water Recycling and Environmental Learning (ARC), was completed. The ARC was formally opened in August 2019. It will produce 10,000 acre-ft/year of advanced treated water for percolation in the Montebello Forebay spreading grounds.

In 2019, the WRD Board updated its Strategic Plan and 5-year Capital Improvement Plan and for the first time formally introduced the goal of "WIN for ALL", an expansion of WRD's WIN objectives to further offset the region's imported water use. WRD's WIN 4 ALL Program will aim to increase resilience in WRD's replenishment operations and expand extraction capacity in the basins to ensure that the pumping community sees the full benefit of using existing water rights. In addition, WIN 4 ALL will aim to take advantage of available local recycled water and stormwater resources to recharge available groundwater basin storage space and provide another avenue for increased regional reliance on local water supplies.

In 2016, WRD adopted the Groundwater Basins Master Plan, which identified projects to increase supplies for replenishment to enable additional groundwater production with various scenarios of pumping within and above the adjudicated pumping rights in the West Coast Basin and the allowed pumping allocation in the Central Basin. WRD is currently completing a feasibility study to evaluate siting options and available treatment technologies for brackish water reclamation facilities to remediate the saline plume in the West Coast Basin that has been trapped due to initial seawater intrusion and the subsequent implementation of the West Coast Barrier Project.

Groundwater constitutes about half of the drinking water supply to the 3.4 million residents within the WRD service area. WRD has come a long way and has accomplished a lot in these past 60 years, and will continue to move forward to secure a reliable water future for the region.

## 2. **Water Recycling Legislative/Regulatory Updates** (*Raymond Jay/MWD*)

### California Legislation

Last day for Governor to sign or veto bills was Oct 13, 2019. The details of the 2019 California Legislative dates can be found at:

<http://assembly.ca.gov/legislatedeadlines>

- **Senate Bill 166** – Process Water Treatment Systems: Breweries (Wiener)

Requires SWRCB to adopt regulations on treatment and reuse of process water in breweries on or before 12/1/2025. SB 166 is sponsored by the San Francisco Public Utilities Commission. It provides wineries and breweries with clear guidance on reusing process water onsite, to encourage more water reuse.

Last action: 08/30/19 – held in committee

- **Senate Bill 332** – Wastewater Treatment: Recycled Water (Hertzberg and Wiener)
  - Mandates reduction of wastewater discharges to the ocean. Declares discharges of treated wastewater from ocean outfalls as a “waste and unreasonable use” of water. NPDES permit holders and affiliated water suppliers have new requirements.
  - Requires NPDES permit holders and affiliated water supplies wastewater treatment facilities to: reduce ocean discharges
    - annually by 50 percent from average annual dry weather volume by 2030 and 95 percent from average annual dry weather volume by 2040.
    - Submit joint plan for treatment, transportation, and reuse by 2025
    - Submit progress reports by 2027 and every 5 years thereafter
    - Penalties for lack of progress

Sponsor: NRDC and California Coastkeeper Alliance; Joint author with Senator Bob Hertzberg;  
Last action : 05/16/19 – held in senate Appropriations

- **Assembly Bill 292** – Recycled Water: Raw Water and GW Augmentation (Quirk)
  - Rename “indirect potable reuse for groundwater recharge” as groundwater augmentation. Clarify “Potable Reuse” as 1 of 4 types:
    - Groundwater augmentation,
    - Reservoir water augmentation,
    - Raw water augmentation,
    - Treated drinking water augmentation

SWRCB adopt raw water augmentation before 12/31/2023; Sponsor: WaterReuse California  
Last action : 08/30/19 – ordered to inactive file

- **Assembly Bill 1180** – Water: Recycled Water (Friedman)
  - Require SWRCB to update uniform criteria for non-potable uses by 2023 if sufficient funds have been appropriated. Require policy handbook to include a provision for use of a swivel or change over device to supply potable water to dual plumbed systems during an interruption of recycled water service and require use of swivel or changeover device to be consistent with any notification and backflow protection provisions contained in the policy handbook.

Last action: 10/02/19 – signed by Governor; WBCA is sponsor.

#### **Direct Potable Reuse Framework**

- SWRCB prepared 2<sup>nd</sup> addition
- Comments due on 10/09/2019 at noon
- Includes new chapter on regulatory approach, use of WTPs, aesthetic issues; Proposes to develop raw water and treated water augmentation regulations together; Allow LRV of WTP as part of treatment requirement
- Will adopt regulations by 12/31/2023

- WRCA prepared comment letter

### Federal update

National water Reuse Action Plan: Comments due on December 16, 2019

### FY 2020 Appropriations

#### House Appropriations

- CWSRF = \$1.78B
- DWSRF = \$1.30B
- Title XVI = \$67M;
- WINN = \$13M

#### Senate Appropriations

- = \$1.6B, WIFIA = \$73M
- = \$X.XB
- = \$65M
- = \$20M

House passed continuing resolution through November 21  
House and senate to negotiate on final funding for FY 2020

- **HR 1162** – Water Recycling Investment and Improvement Act (Napolitano)
  - Increase \$ for Title XVI
  - Increase Title XVI appropriation from \$50M to \$500M
  - Increase Title XVI federal funding ceiling from \$20M to \$30M
  - Delete funding priority for projects identified by US Drought monitor or as a disaster area for past 4 years
  - Make program permanent by removing the WIN Act Title XVI 2021 expiration date
  - Remove the requirement for projects to be specifically name in appropriation legislation
  - Last action: 06/13/19 – Subcommittee Hearings

### 3. Regulatory Agency Update:

#### a. **Los Angeles Regional Water Quality Control Board** (*Jeong-Hee Lim*)

Presented CA EPA State Water Resources Control Board updates on guidelines for local water agencies to follow in detecting and reporting the presence of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in drinking water. The Board also announced it has begun the process of establishing regulatory standards for these chemicals.

The updated guidelines are part of the Board's comprehensive effort to assess the scope of contamination of drinking water supplies by PFOA and PFOS, chemicals that have been widely used in grease and stain-resistant coatings for consumer products and in firefighting foams. Because of their potential adverse health effects, these chemicals pose an emerging risk to drinking water sources nationwide.

The updated state guidelines lower the current notification levels from 14 parts per trillion (ppt) to 5.1 ppt for PFOA and from 13 ppt to 6.5 ppt for PFOS. The guidelines are based on updated health recommendations by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHHA).

Notification levels are a nonregulatory, precautionary health-based measure for concentrations in drinking water that warrant notification and further monitoring and assessment. Public water

systems are encouraged to test their water for contaminants with notification levels, and in some circumstance may be ordered to test. If the systems do test, they are required to report exceedances to their governing boards and the State Water Board and are urged to report this information to customers.

In addition to updated notification levels, the State Water Board announced that it has requested that OEHHA develop public health goals (PHGs) for both PFOA and PFOS, the next step in the process of establishing regulatory standards, known as maximum contaminant levels (MCLs) in drinking water.

The State Water Board is currently conducting a statewide assessment to determine the scope of contamination by PFAS, including PFOA and PFOS, in water systems and groundwater. In the first phase, public water systems were ordered earlier this year to sample about 600 drinking water supply wells located near airports and landfills, where contamination is more likely, and near locations where PFAS was previously found. These chemicals have been used in fire-fighting foams at airports for fire training and response and have also been used in many consumer products that end up in landfills.

Following this initial phase, the assessment will likely focus on sampling water sources near industrial sites and at wastewater treatment facilities. Data collected from the assessment will be made publicly available on the State Water Board's website and used to inform future actions.

To obtain more information about PFOA and PFOS, the updated guidelines, and the work of the State Water Board's Division of Drinking Water for these chemicals contact Blair Robertson, [blair.robertson@waterboards.ca.gov](mailto:blair.robertson@waterboards.ca.gov)

**b. LA County Department of Public Health (*Robert Bueras*)**

Robert mentioned that if you have any projects in the pipeline, please submit the plans to avoid any delays. Communication with the Department of Public Health is important. Call or email before the project starts. Start the permit process as early as possible. If you are including new technology in your project, present it to the County. The County can start then approval process; otherwise it can delay the entire project.

**4. California State Section Update (Evelyn Cortez-Davis)**

- Had a state section meeting in August 2019; no meeting until next year.
- CA Direct Potable Reuse Framework: Comments due on October 9, 2019. WaterReuse has comments and feedback – will share the outcome.
- WaterReuse CA 2020: San Francisco, CA (March 15 – 17): Abstracts deadline is October 18, 2019.
- USEPA Draft National Water Reuse Action Plan released in September 2019: Comments due on December 16, 2019. ACWA/AWWA/WEF to submit combined, significant comments to EPA.
- Evelyn encouraged the group to submit thoughts to compile/refine specifications for recycled water that are relevant to us.
- The Annual WaterReuse Symposium held in San Diego, CA between September 8 – 11, 2019 was attended by more than 1,000 attendees with heavy presence of the WaterReuse LA Chapter



- Bill Van Wagoner of LADWP received the Recycled Water Advocate Award at the Annual WaterReuse Symposium in San Diego, CA. A short video was presented to honor Bill's achievements.

5. **Chapter Updates** (*Fred Gerringer*)

The August, 2019 Member Meeting Summary was approved.

2020 WaterReuse California Annual Conference will be held in San Francisco in March 2020. Abstracts due date is Oct 18, 2019. Utilities can submit the nominations for awards.

6. **Membership Roundtable** (*Jared Lee*)

The Membership Roundtable is an opportunity for agencies to share their accomplishments and challenges with, or seek input from, the LA Chapter WR members.

Jared discussed new and on-going recycled water projects undertaken by Burbank, including use of recycled water by the Warner Bros. office area.

Evelyn Cortez-Davis mentioned the confirmation of new General Manager of LADWP, Marty Adams. Look forward to new and exciting times with a new vision of the recycled water program.

Ray Mokhtari/MWD – Discussed the Regional Recycled Water Program (RRWP) of MWD, which would produce 150 mgd of purified water in partnership with the Sanitation Districts. A new advanced water treatment facility would be located at the Sanitation Districts' Joint Water Pollution Control Plant (JWPCP) in Carson and a new regional conveyance system would deliver a reliable source of IPR water to recharge four regional groundwater basins: Central and West Coast, Main San Gabriel, and Orange County. A 0.5-mgd demonstration facility will provide a means for MWD and Sanitation Districts to evaluate the envisioned treatment process, coordinate operations, and serve as an effective venue for public outreach.

MWD will hold the grand opening of the demonstration project in Carson on Oct 10, 2019.

*The LA Chapter will be providing raffle tickets to all those who contribute during this portion of the meeting, so bring your updates, ideas and suggestions!*

The next meeting will be on the first Tuesday of the month rather than the regular second Tuesday.

7. **Next Meetings**

- December 3, 2019 – Host: *Burbank Water & Power*; Sponsor: *BWP*
- February 11, 2019 – Host: *TBD*; Sponsor: *TBD*

8. **Adjournment** ..... 1:30 p.m.

9. **Tour of ARC**..... 1:45 p.m.

**Los Angeles Chapter Officers for 2019/2021**

Fred Gerringer, President	626-319-1107
Jared Lee, Vice President	626-379-8443
Judi Miller, Secretary/Treasurer	213-228-8236
Evelyn Cortez-Davis, Chapter Trustee	213-367-1014
Raymond Jay, Past-President	213-217-5777

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**Meeting Attendees**

FIRST NAME	LAST NAME	ORGANIZATION
Chris	Aguillon	City of Santa Monica
Tom	Barnes	ESA
Erika	Bensch	LACSD
Suzanne	Brown	LACSD
Robert	Bueras	LA County Department of Public Health
Rajat	Chakraborti	Jacobs
Nicholas	Chow	UCLA
Michael	De Ghetto	Glendale Water and Power
Brett	Dingman	Las Virgenes MWD
Tracey	Dinh	LADWP
Everett	Ferguson	WRD
Hannah	Ford	Brown and Caldwell
Alex	Franchi	AECOM
Diane	Gatza	WRD
Fred	Gerringer	Hazen and Sawyer
Karina	Gonzalez	LASAN
Cory	Heggtveit	Tetra Tech
Ann	Heil	LACSD
Nichole	Horton	City of Pomona
Bob	Huizenga	Burbank Water and Power
Jennifer	Jacobus	ESA
Raymond	Jay	Metropolitan Water District of Southern California
Christina	Jones	LASAN
Kelvin	Kasai	LA County Department of Public Health
Jagjit	Kaur	Jacobs
Madeline	Kelsch	LADWP
Jessica	Koop	WRD
Sam	Landsman	CDM Smith
Jared	Lee	Burbank Water and Power
Jeong-Hee	Lim	LA Regional Water Quality Control Board
Brittany	Liu	WRD



Los Angeles Chapter of the WaterReuse Association  
 October 8, 2019 MEETING SUMMARY



John	Lockett	LADWP
Danielle	Maurizio	LACSD
Kate	Melberg	LASAN
Barkev	Meserlian	West Basin Municipal Water District
Dusty	Moisio	Rowland Water District
Ray	Mokhtari	Metropolitan Water District of Southern California
Leslie	Moulton-Post	ESA
Stephen	Opot	LASAN
Linda	Palmquist	MNS Engineers
Mariam	Panasyan	LASAN
Dhiru	Patel	Lee & Ro
Gilberto	Ramirez	LA County Department of Public Health
Robert	Reed	West Yost
Christine	Rice	CDM Smith
Julie Ann	Robinson	Glendale Water and Power
Janet	Samala	LASAN
Eric	Schlageter	Las Virgenes MWD
Vamsi	Seeta	Jacobs
Shieva	Taat	LASAN
Dian	Tanuwidjaja	Long Beach Water Department
Yoshiko	Tsunehara	LADWP
Alex	Wait	Brown and Caldwell
Dean	Wang	Long Beach Water Department
Sunny	Wang	City of Santa Monica
Megan	Watt	CDM Smith
Ryan	White	Rowland Water District
Eric	Wood	LA County Department of Public Health
Robert	Yamaguchi	Walnut Valley Water District
Christina	Zabalza	LASAN
Alex	Zaragoza	Rowland Water District
John	Zhao	Las Virgenes MWD

TOTAL: 62