

Los Angeles Chapter of the WaterReuse Association
MEETING SUMMARY



Location: Las Virgenes Municipal Water District
Address: Las Virgenes Road
Calabasas, CA 91302
Purpose: Bi-Monthly Meeting
Date and Time: February 11, 2014 from 11:30 a.m. – 1:30 p.m.
Distribution: Los Angeles WaterReuse Association Chapter Members

Lunch: Sponsored by RMC Water and Environment

Below is a summary of highlights from the December member meeting of the LA Chapter of the WaterReuse Association.

1) Venue host presentation: Summary of LVMWD Recycled Water System-History, Present and Future" (David Lippman)

David Lippman, LVMWD Director of Facilities and Operations, provided an overview of the District and its recycled water program. LVMWD provides potable water and sanitation services in a 122-square mile service area, serving about 70,000 people in the cities of Agoura Hills, Calabasas, Hidden Hills and Westlake Village and unincorporated areas of Los Angeles County. LVMWD has been partnered since 1960s through a Joint Powers Authority (JPA) with Trifunfo Sanitation Districts. The JPA owns/operates the 9 mgd Tapia WRP, currently operating with 2/3 of its flow from the LVMWD service area and 1/3 from the Triunfo service area. The JPA also owns/operates the Rancho Composting Facility that includes biosolids processing, and 60 miles of major trunk sewers; it does not operate sewage collection systems.

The JPA has 70 miles of recycled water pipelines, serving 700 RW water customers in LV service area in 4 pressure systems. A few single family homes are served as well as three dual-plumbed buildings. Most of the end use is for irrigation of parks, schools, golf courses and common landscape areas.

With no viable local water supply source (groundwater is high in sulfur), both JPA agencies are completely dependent on imported water. Seasonal demands are challenging and recycled water is supplemented with potable water during high demand, summer periods.

During winter time, unused recycled water is discharged to Malibu Creek and to the LA River. From 1965-1975, discharging to Malibu Creek was prohibited and reuse began with the spraying WRP effluent on fields in Malibu Canyon. From 1975-1985 there were just wintertime restrictions for discharge to Malibu Creek. Irrigation of Calabasas Golf Course was implemented and considered innovative at the time. With the installation of tertiary filtration at the WRP, discharge to Malibu Creek was permitted year-round, but reuse had taken hold and the recycled water system was expanded into Ventura County and the housing boom spurred additional reuse. In 1997, discharge to Malibu Creek was prohibited 7 months during the year and a discharge point to LA River was implemented.



The JPA reuses about 60% of the 10,000 af of recycled water it produces each year. LVMWD uses 4,500 af, which accounts for 17% of the annual water demand of its service area. Triunfo uses 1,500 af.

LVMWD recently completed a 1 MW solar project that provides 1/6 of the power used at recycled water pump station. The future of the recycled water system includes expanding their purple pipe system, developing regional partnerships and possibly a seasonal storage facility to eliminate potable water supplement and significantly reduce discharge to Malibu Creek. They are working with LADWP to bring recycled water to the Woodland Hills Golf Course, and potentially to Pierce College. Both of these projects need seasonal storage and funding.

By 2035, recycled water production is estimated to reach 12,000 af. This could provide 31% of the future water demand, and could potentially include IPR or DPR.

A question was raised regarding minimum flow requirements to the LA River. The JPA is required to discharge when river flow too low. Last year, they had to provide a couple of hundred af during peak season.

David's presentation can be found on the LA Chapter WaterReuse website.*

2) Lunch sponsor presentation: "Direct Potable Reuse: Observations and Lessons Learned" (Tom Richardson)

Tom Richardson, Chair of National WaterReuse Potable Reuse Committee, provided some background and perspective on the issues of DPR implementation as part of California's future water supply. From the Montebello Forebay project, to Water Factory 21 and its development into the Groundwater Replenishment System, to the San Diego Reservoir Augmentation project where the reservoir serves as an environmental buffer to the DPR project in Big Spring, TX, Tom described the evolution of potable reuse as a process of using technology to "fast-forward" what happens in nature.

Surface water discharge regulations provided a driver for San Diego to consider DPR. Discharging to a water body with a MUN (potential source of municipal drinking water) designation requires compliance with a suite of regulatory hurdles that can be avoided with DPR. Full advanced treatment provides sufficient barriers to protect public health. While the regulators are seeking "infallible reliability", there really is no such thing. The reuse industry has developed a measure of pathogen removal capability that Tom referred to as the "12/10/10 Rule" (12-log virus inactivation and 10-log of both Giardia and Cryptosporidium inactivation). Sufficient redundancy needs to be provided in case one of the treatment processes fails.

DPR research is focused on "replacing" the environmental buffer inherent in IPR. Primary criteria are the treatment levels, blending ratios, and time to respond to failures. For the San Diego DPR project, warm recycled water would be delivered to the top of the reservoir. Detention time is sufficient when the reservoir is stratified (warm water on top, cold water on the bottom). But when the reservoir destratifies from turnover, >6 months of detention can become just days of detention time, albeit in fully mixed condition. A 200:1 mixing

blend in worst case conditions provides >2-log inactivation, effectively mitigating the short detention time.

Rate impacts should consider both wastewater and water supply drivers. While RO treatment is beneficial with respect to salt/nutrient management, the concentrate waste stream is a significant issue to address with respect to salt buildup.

With respect to public perception, Tom noted that an incremental approach can help the public adjust to the concept of DPR by first introducing IPR. In Santa Clara, IPR via groundwater basin injection is being conducted, which can eventually be converted to DPR by tapping into the influent pipeline to the drinking water treatment plant. In San Diego, a coalition of environmental and business communities serve as emissaries for the project.

Tom's presentation can be found on the LA Chapter WaterReuse website.*

3) Legislative/Regulatory Updates (Raymond Jay)

Raymond highlighted the following items:

- important 2014 legislative dates;
- the state drought declaration, administrative measures, and proposed legislation;
- the 2014 Water Bond and a comparison of competing bills;
- drinking water reorganization;
- Title 17 and Title 22 regulation update; and
- Federal legislative update.

Raymond's presentation can be found on the LA Chapter WaterReuse website.*

4) Los Angeles County Department of Public Health Update (Carlos Borja), Chief of cross-connection program for County

Carlos cautioned that using proper pipeline identification is critical. If a contractor gets it wrong, they will have to dig it up and correct. This applies to all pipelines.

He also noted that the current drought condition should not rush projects and impinge on safety precautions and requirements.

5) Los Angeles Regional Water Quality Control Board Update (Ginachi Amah)

Ginachi provided a briefing of recent Regional Board activities pertinent to the LA Chapter. The last public hearing for the stormwater permit for Long Beach was held. The permit has the same onsite detention requirements as the LA County permit. They are also considering the increase in the recycled water contribution (RWC) percentage for the Montebello Forebay groundwater recharge project.

Salt and Nutrient Management Plans (SNMPs) need to be developed in response to increased usage of recycled water to balance basin water quality with increased recycled water use. These are stakeholder led efforts. The Central Basin/West Coast Basin SNP will be completed this year, but they are anticipating as much as a 2-year extension for those not plans that have not yet been completed.

A very controversial hearing was held last week regarding the Marina del Rey Toxics TMDL that would require reduced copper loading from boats. The TMDL passed unanimously by the Regional Board.

6) California State Section Update (Monica Gasca)

- Upcoming CA Section Annual Conference March 16-18 in Newport Beach
- It has been many years since the conference been held in LA and there will be a Board meeting at the conference to decide whether next year's conference will be held here (P.S. It will!)
- Customer of the Year: - Gibson Ranch, Tough Tec's
- Recycled Water Advocate of the Year: Earle Hartling/LACSD

7) Chapter Updates

- a. December Chapter Meeting Summary - approved.
- b. Chapter Newsletter Update (Matt Elsner) - Need agency/consultants spotlight; can pull information from agency or consultant's website. Targeting May for the next edition. Perhaps we should consider an "Ask the Regulator" column.

8) Focus Areas

- a. Funding Opportunities (John Robinson)
 - Bay-Delta under CALFED: Conservation grant - due May 6; Desalination/ water purification pilot - due Feb. 27.
 - SWRCB Prop 50 - use FFAST application
 - DWR IRWMP - not yet announced. Round 2: Greater LA \$23.43M approved to County DPW
 - County of Ventura - requested \$18M, approved \$13.46M
 - Metropolitan Water District's onsite retrofit pilot program: Requesting \$3M to provide funding to encourage site retrofits. Program will start in July. Currently putting criteria together; information will be available on Metropolitan's website. Contact Ray Mokhtari (rmokhtari@mwdh2o.com) or Kira Alonzo (kalonzo@mwdh2o.com) directly. There will be an online application form system and the site consultant will help customers fill it out.

This grant is for customers. Metropolitan had a similar program in 2007, but only for public agencies. This program is open to both public and private customers. It does not include gray water; does include HVAC, cooling towers. The contract between Metropolitan and the customer is not long. There are contract terms to indemnify Metropolitan against any cross-connection problems.



Example: If site uses 100 AF of potable and will switch to recycled water, maximum payment is \$40K, although payment will never exceed actual project costs. Funds will be awarded on a first come first serve basis. Project installation will need to be completed in 4-5 months. If not completed, the funds will be released to others.

9) Other Topics

a. *Industrial Use Committee (Elise Goldman)*

- Hosted first specialty conference in December 2013 in Long Beach with 198 attendees
- Planning to do a workshop reaching out to TX WaterReuse for the oil and gas-related industry
- Addressing food & beverage industry
- Addressing water quality for hydraulic fracturing

2 WRRF research projects coming up re: industrial reuse.

b. *Technical topics poll for future meetings (Inge Wiersema)*

Top ranked topics included the following:

- Public outreach component – need volunteer
- DPR Treatment technologies – Fred Geringer
- Title 22 Engineering Report – need volunteer
- Cast studies for retrofit studies – Maria Alvarez

10) Membership Roundtable – Projects, Regulatory Issues, Financing, etc. (Kraig Erickson)

Camrosa is finishing up and about to start testing a 1 mgd groundwater desalination plant. Construction is ahead of schedule. Also will be getting recycled water from Hill Canyon WRP in Thousand Oaks through Conejo Creek. Agreements have been extended for 4 years. May eventually implement DPR, potentially with IPR en route.

A group is lobbying to be able to count State Revolving Fund loans as matches in proposed bonds.

11) Next Meeting

- *April 8, 2014* – Host: Upper San Gabriel Valley MWD; Sponsor: AECOM

Los Angeles Chapter Officers for 2014

Raymond Jay, President	213-217-5777
Kraig Erickson, Vice President	805-550-5232
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Monica Gasca, Chapter Trustee 562-908-4288 x2838 mgasca@lacsds.org
 John Robinson, Past-President 626-375-9389 jrobinson@johnrobinsonconsulting.com

* The presentations from this December, 2013 meeting can be found at:
<http://www.watereuse.org/sections/california/losangeles/meetings>

Meeting Attendees

Member	Organization
Anita Matlock	Rain Bird Corp.
Asif Sheikh	Burbank Water and Power
Barbara Cameron	City of Malibu
Bill Kabaker	Precise Landscape Water Conservation, Inc.
Bill Keyes	Camrosa Water
Carlos Borja	Los Angeles County Dept. of Public Health
Celine Gallon	Los Angeles Regional Water Quality Control Board
David Lippman	Las Virgenes Municipal Water District
Elise Goldman	West Basin MWD
Fred Gerringer	Trussell Technologies
Greg Bradshaw	AECOM
Gordon Phair	Palmdale - Utilities Division
Ian Mackenzie	Hazen and Sawyer
Ian Prichard	Camrosa Water
Inge Wiersema	Carollo Engineers
Jason Yim	Castaic Lake Water Agency
Joe Walters	West Basin MWD
John Robinson	John Robinson Consulting, Inc.
Jordi Fuentes	Los Angeles County Dept. of Public Health
Joey Uy	City of Los Angeles/Bureau of Sanitation
Julia Aranda	MNS Engineers
Kerry McCorkle	Los Angeles Dept. of Water and Power
Kevin Smith	ESA
Kirk Allen	Los Angeles County Dept. of Public Works
Kraig Erickson	RMC Water and Environment
Maria Alvarez	AECOM
Matt Elsner	Burbank Water and Power
Matt Knudson	Palmdale Water District
Mike Phelps	Camrosa Water
Mohammad Fatemi	City of Thousand Oaks
Monica Gasca	Sanitation Districts of Los Angeles County
Ray Mokhtari	Metropolitan Water District of So. Calif.
Robert Bueras	Los Angeles County Dept. of Public Health
Rosalba Santana	Los Angeles Dept. of Water and Power
Saba Saeed	Valencia Water Company
Serfio Flores	Valencia Water Company
Shadi Bader	Burbank Water and Power

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Sharona Sokolow	UCLA
Sunny Wang	Black and Veatch
Tom Holliman	Lee & Ro, Inc
Tom Love	DR Consultants
TOTAL ATTENDEES: 41	