WATEREUSE LOS ANGELES Chapter Newsletter

FALL 2016

IN THIS ISSUE

NEXT MEETING

Tuesday, December 6th
11:30am-1:30pm

LOCATION:

Metropolitan Water District of Southern California

700 North Alameda Street
Los Angeles, CA 90012-2944

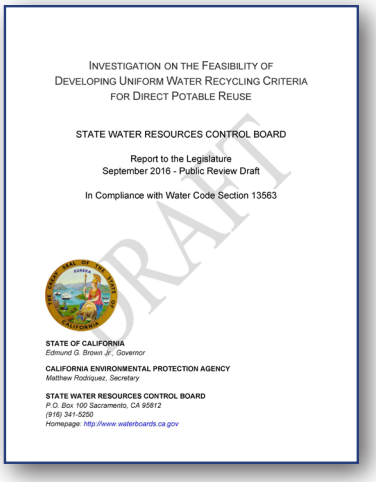
Update on the Investigation of the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse

By Dawn Taffler, Kennedy/Jenks Recycled Water Practice Leader

In 2010, The California Legislature enacted Senate Bill 918, which modified the California Water Code and required that the State of California's Division of Drinking Water (DDW), in consultation with the State Water Resource Control Board (SWRCB), investigate and report on the feasibility of developing uniform water recycling criteria for Direct Potable Reuse (DPR) by December 31, 2016. In response to this legislative mandate, an Advisory Group and Expert Panel were assembled to advise the SWRCB in the development of the feasibility report. Over the next two years, 11 advisory group meetings and 12 expert panel meetings convened to provide recommendations to the SWRCB which cover a range of topics related to DPR.

Participants in the Draft DPR Feasibility Report special briefing at the Los Angeles Chapter Meeting on Sept 22, 2016

On September 8, 2016 the DDW released a draft report on the feasibility of developing statewide regulations for direct potable reuse of recycled water. The Draft DPR Feasibility Report is comprised of three parts:


INVESTIGATION ON THE FEASIBILITY OF DEVELOPING UNIFORM WATER RECYCLING CRITERIA FOR DIRECT POTABLE REUSE

STATE WATER RESOURCES CONTROL BOARD

Report to the Legislature
September 2016 - Public Review Draft

In Compliance with Water Code Section 13563

DRAFT

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Matthew Rodriquez, Secretary

STATE WATER RESOURCES CONTROL BOARD
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1. DDW Report: a 50 page readable document that includes an overview of the requirements for the report, regulatory backdrop and a summary of projects and current research on DPR. The outcomes of the Advisory Group and Expert Panel independent review are summarized along with DDW's findings and recommended implementation plan, which identified 10 approaches to address research and knowledge gaps and 4 steps for DPR program development.
2. Expert Panel Appendix A: A stand-alone 420 page comprehensive report focused on public health issues and scientific and technical matters regarding the feasibility of developing uniform water recycling criteria, assessing the need for additional research on DPR, and recommending an approach for completion of any needed research. The Expert Panel focused their evaluation around 7 technical topics and put forth 6 research recommendations for further exploration.
3. Advisory Group Appendix B: A stand-alone 80 page comprehensive report similarly provided scientific and technical recommendations with a focus on practical considerations for DPR criteria that are protective of public health and achievable by project components. The findings included 9 recommendations DIRECTLY related to feasibility of developing criteria and 10 recommendations NOT DIRECTLY related to feasibility of developing criteria.

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President's Column

Thanksgiving is a historical commemoration in the U.S. but also is a time traditionally spent with friends and family where we often review our past and plan for the future. As such, I wish to highlight some of my notes from the annual WateReuse legislative-Regulatory Committee planning meeting to update you on the status of important regulations and help you plan for 2017.

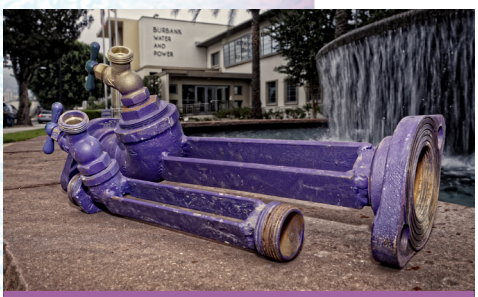
This year was packed full of items that affect the entire recycled water community including the Direct Potable Reuse report to the Legislature, Surface Water Augmentation regulations, Recycled Water Policy update, mandatory building standards for recycled water, and a few pivotal pieces of legislation.

- The Direct Potable Reuse report to the legislature was discussed at three WateReuse workshops with over 300 participants. WateReuse provided comments to SWRCB on the report requesting clarification on the process, timeline, and implementation and research plans. Please see Dawn Taffler's article for additional details. The final report will provide direction for the future implementation.
- Surface Water Augmentation regulations, required by SB 918, are to be adopted by December 31, 2016, but are expected to be delayed while the SWRCB updates draft regulations before the public comment period. The dilution and retention time limit the applicability to large reservoirs and may force other projects to wait for direct potable reuse regulations. WateReuse and others have requested an alternate provision to allow permitting of smaller reservoirs that can demonstrate equivalent public health protection and to release the draft regulations prior to finalizing the DPR feasibility report to ensure regulatory consistency. WateReuse anticipates that the draft regulations will be released before the end of the year and regulations adopted in the first quarter of 2017.
- The Recycled Water Policy update is scheduled to start at the December 6, 2016 SWRCB Board meeting. SWRCB is planning to adopt a resolution supporting continued development of salt and nutrient management plans (SNMPs), convening a science advisory panel on Constituents of Emerging Concern (CECs), and initiate a stakeholder process to update the Recycled Water Policy by December 2019. The SWRCB wants to continue momentum on SNMPs, coordinate SNMPs with agriculture community and groundwater sustainability agencies, ensure conformance with the revised General Order (permit), and update the recycled water goals. A WateReuse workgroup, including some Los Angeles Chapter members, has developed initial comments that will be provided to SWRCB for consideration.
- AB 2282 requires adoption of mandatory building standards for installation of recycled water systems for newly constructed residential, commercial and public buildings. The Building Standards Commission (BSC) and Department of Housing and Community Development (HCD) have held their 3rd stakeholder meeting to assist in the research, development, and adoption of mandatory building standards. Representatives from the Los Angeles, Orange County, and San Diego Chapters have been participating in the stakeholder meetings and have provided feedback to the BSC. Some of the concerns identified include which local agency determines that recycled water is available and mandatory implementation is required, ensuring consistency with Title 22 and other recycled water definitions, dual plumbing requirements, cross connection requirements, and inclusion of graywater and other on-site water systems. The BSC is planning to consolidate stakeholder comments, get proposed changes from state agencies in December, hold code advisory meetings in February 2017, and adopt Code in June 2017.
- Highlights of 2016 recycled water legislation include adoption of AB 2022 that allow the bottling and distribution of Advanced Purified Demonstration Water. The biggest discussion was on SB 163 which declared ocean discharges a waste and would have required mandatory reuse of 50 percent of ocean discharges by 2033. Although this bill did not pass, there is concern that a similar bill will be introduced in 2017. WateReuse also anticipates reintroduction of AB 1463 – Onsite Treated Water in 2017. A proposal for 2017 legislation to clarify DPR definitions was also discussed. Some believe there is a benefit to forcing SWRCB to clearly define terms and set deadlines. A working group is being formed to further develop concept.

As with Thanksgiving, I feel full from all of the activity (and turkey and pumpkin pie) and happy from the progress we made. I wish to thank the Chapter Officers and volunteers for all of their hard work and look forward to 2017 for additional progress meeting our water demands with recycled water. Please let me know if you have any questions or would like to participate more in the Los Angeles WateReuse Chapter. I hope to see you at our next Los Angeles Chapter meeting.

Cheers,

Raymond Jay, President
WateReuse California, Los Angeles Chapter



Burbank Water and Power's 1" and 2" meter spacers sit on front of BWP's water fountain that uses tertiary treated recycled water.

BWP Deploys Temporary Meter Spacers

Burbank Water and Power (BWP) uses temporary meter spacers to facilitate the installation of recycled water services by allowing customers to tie their on-site plumbing into our recycled water meter box before their site is officially approved for recycled water. The purple meter spacers are designed and fabricated by BWP staff, have a steel body and brass fittings, and are the same lay length as their corresponding 1" and 2" meters. Not only do they reduce the chance of an unauthorized connection to a recycled water line, they also have a hose bib with a valve so that the customer's recycled water system can be pressurized with an approved potable water source for a cross connection test. If you would like to see them in action, contact Jared Lee at JLee@burbankca.gov.

Agency Spotlight: Castaic Lake Water Agency (CLWA)

CLWA is a public water wholesaler in the Santa Clarita Valley delivering water to four local water purveyors: Los Angeles County Waterworks District 36 (LACWD36), Newhall County Water District (NCWD), Santa Clarita Water Division (SCWD), and Valencia Water Company (VWC). CLWA is one of 29 State Water Project contractors and receives water imported from northern California via the California Aqueduct. CLWA also receives imported water acquired through various water exchange and storage programs.

For the past decade CLWA has been purchasing tertiary treated recycled water from the Santa Clarita Valley Sanitation District's Valencia Water Reclamation Plant (WRP) and wholesaling the recycled water to VWC for sale to retail customers for appropriate uses. The existing recycled water system (Phase 1) includes 13 reuse sites, a 4,000 gpm pump station, a 1.5 Million Gallon recycled water tank located in the Westridge development, and approximately 15,600 feet of recycled water pipelines. Annual recycled water usage has averaged 450 acre-feet per year (AFY) for the last 10 years.

Currently, CLWA is completing an updated Recycled Water Master Plan (2016 RWMP) and associated Programmatic Environmental Impact Report (PEIR). The 2016 RWMP evaluates near-term, mid-term and long-term objectives as follows:

1. Near-Term Objective: Accelerate the implementation of the next phase of recycled water projects (Phase 2 projects). CLWA is cooperatively working with the four local water purveyors to complete the planning and CEQA documents for the Phase 2 projects. When completed, the Phase 2 projects will increase recycled water usage in the Santa Clarita Valley to around 2,850 AFY.
2. Mid-Term Objective: Incorporate the increased demands associated with planned new developments to optimize expansion of the recycled water system and identify further opportunities for non-potable reuse.
3. Long-Term Objective: Explore opportunities for potable reuse through groundwater recharge, surface water augmentation and direct potable reuse.

For more information on CLWA, contact Shadi Bader at sbader@CLWA.org.

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Key Take-Aways Presented at the LA Briefing Meeting

- After reviewing the Expert Panel's recommendations, the SWRCB agrees with the panel that the creation of criteria for the direct potable reuse of recycled water is achievable.
- At the same time, the SWRCB noted that additional research would be most beneficial, and several knowledge gaps must be addressed before DPR regulations can be adopted. However, it was noted that research can continue simultaneous to the development of criteria.

WRCA Coalition Comment Letter

WateReuse California in conjunction with CADA, CWEA, ACWA, CUWA, and AWWA CalNevada Section submitted a comment letter to the SWRCB on October 25, 2016. The letter acknowledged the importance of the finding that it IS feasible to develop uniform water recycling criteria for DPR in providing a new drought-proof water supply to California communities. The letter included the following recommendations for modifying the report before the submittal to the Legislature.

1. *Clarify Phased Development Process for Different Types of DPR*
2. *Align the Report with the Draft Surface Water Augmentation (SWA) Regulations*
3. *Allow Case-by-Case Approval of DPR Projects as Regulations are Developed*
4. *Include Timelines & Funding Sources for Completion of Implementation Plan*
5. *Ask the Expert Panel for More Specificity on its Research Plan*
6. *Further Clarify Recommendations in the Implementation Plan*
7. *Support Development of Operator Certification for AWT Facilities*

WRCA also submitted a report from Trussell Technologies Inc., which elaborated on the six Expert Panel research recommendations and provided additional specificity for near- and long-term goals to create a clear and transparent path to DPR regulations through the identification of 'milestones' and 'metric for success.'

Known by his colleagues (affectionately or otherwise) as the "Guru", Earle Hartling, Water Recycling Coordinator for the Sanitation Districts of Los Angeles County, answers your burning questions on all issues regarding recycled water. His opinions are his own, and do not necessarily reflect those of the Sanitation Districts. He has been involved with water reuse for over 35 years, so ask your questions sooner than later, because he ain't getting any younger! Seriously, he really isn't. C'mon, people, the clock's ticking on this guy.

Ask the Guru: Title 22 vs. Title 17

***Question:** : "I'm confused over Title 17 and Title 22. What's the connection between them?"*
- Wants a Shot at the Title

Dear Shot,

First of all, let's start with Title 22, which we in this industry, at least in California, use as the [insert holy scripture of your choosing] of water recycling. "Title 22" is the short-hand version when referring to the California Code of Regulations Title 22 Social Security, Division 4 Environmental Health, Chapter 3 Water Recycling Criteria (as you can see, there's a lot more stuff in Title 22 than just recycled water). These requirements originally came from the California Department of Public Health (now the Division of Drinking Water) and are specifically designed with the protection of public health in mind.

All water recycling requirements in the State of California begin with the provisions in Title 22. Specifically, Title 22 contains the following in regards to direct, non-potable reuse:

- Defines four quality levels for recycled water: undisinfected secondary, disinfected secondary-23, disinfected secondary-2.2 (the numbers refer to the coliform bacteria levels in the product water), and disinfected tertiary recycled water.
- Identifies what recycled water application (e.g., schoolyard irrigation, cooling tower supply, food crop irrigation, impoundments, etc.) can be used given the quality level of the available recycled water.

As we should all know, there is one mortal sin, one unforgiveable curse (for you Harry Potter fans), associated with the use of recycled water, and that is connecting it to the domestic water system.

- Specifies reuse site controls that must be employed, such as mist controllers for cooling towers, setbacks from potable water wells, signage, etc.

Title 22 was most recently updated to include requirements for the use of recycled water for indirect, potable reuse via groundwater replenishment, but this doesn't relate to Title 17, so we won't discuss it further.

"Title 17", officially known as California Code of Regulations Title 17 Public Health, Division 1 State Department of Health Services, Chapter 1 Sanitation (Environmental), Subchapter 1, Engineering (Sanitary), Group 4 Drinking Water Supplies, Article 2 Protection of Water System (got all that?). Essentially, this particular regulation deals with the protection of municipal drinking water supplies from contamination via cross-connections with other, non-potable water supplies. Section 7604(c) of Title 17 lays out the required backflow prevention for sites that have both a potable water supply and a recycled water supply. This is a very specific on-site requirement for the use of recycled water.

As we should all know, there is one mortal sin, one unforgiveable curse (for you Harry Potter fans), associated with the use of recycled water, and that is connecting it to the domestic water system. Title 17, if you could get through the word salad in the previous paragraph, sets up the conditions for the installation and operation of the proper backflow preventers (almost always they are reduced pressure, or RP, devices) on the potable water line supplying a recycled water use site. These sites must get an initial cross-connection test to ensure that all pipeline connections between the future on-site recycled water use areas and the areas that will remain on domestic water have been eliminated.

The backflow preventers are there as a fail-safe just in case someone on-site makes a boo-boo and inadvertently cross-connects the two water systems after recycled water deliveries have begun. The RP devices will prevent higher pressure recycled water from flowing back into the potable system, but not forever. Think of them as you would the donut spare tire in the trunk of your car. It is sufficient in an emergency to get you to a service station, but don't count on it to get you to Seattle.

While this may appear to be an overly simplistic summary of the relationship between the two Titles, the Guru is nothing if not simple.

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GOT NEWS?

We're always looking for interesting stories and informational articles to keep our members up to speed on all that's happening in water reuse and reclamation. Email articles or ideas to Matthew Elsner (**melsner@rmcwater.com**) or Shelah Riggs (**sriggs@dudek.com**)

WateReuse Association: www.watereuse.org/sections/california/losangeles

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