



Notice and Agenda of a Board Workshop

Tuesday, July 10, 2018 at 4:00 p.m.

MEETING LOCATION: District Administration Building
12770 Second Street, Yucaipa

MEMBERS OF THE BOARD: Director Chris Mann, Division 1
Director Bruce Granlund, Division 2
Director Jay Bogh, Division 3
Director Lonni Granlund, Division 4
Director Tom Shalhoub, Division 5

I. Call to Order

II. Public Comments At this time, members of the public may address the Board of Directors on matters within its jurisdiction; however, no action or significant discussion may take place on any item not on the meeting agenda.

III. Staff Report

IV. Presentations

- A. Overview of the Estimated Use of Water in the United States in 2015 by the United States Geological Survey [[Workshop Memorandum No. 18-163 - Page 10 of 193](#)]
- B. Initial Steps Proposed to Achieve New Water Conservation Legislation - Senate Bill No. 606 and Assembly Bill No. 1668 [[Workshop Memorandum No. 18-164 - Page 16 of 193](#)]
- C. Overview of the State Water Resources Control Board Proposed Recycled Water Policy Amendment and Suggested Comments for Modifying the Proposed Policy [[Workshop Memorandum No. 18-165 - Page 21 of 193](#)]

V. Operational Updates

- A. Status Report for the Tracer Study Performed on the R-13.1 Clearwell at the Yucaipa Valley Regional Water Filtration Facility [[Workshop Memorandum No. 18-166 - Page 92 of 193](#)]
- B. Status Report on the Replacement of Automatic Transfer Switches with Integrated Power Metering at the Wochholz Regional Water Recycling Facility [[Workshop Memorandum No. 18-167 - Page 95 of 193](#)]
- C. Overview of the Current Microbial Community Analyses at the Wochholz Regional Water Recycling Facility [[Workshop Memorandum No. 18-168 - Page 97 of 193](#)]

Any person who requires accommodation to participate in this meeting should contact the District office at (909) 797-5117, at least 48 hours prior to the meeting to request a disability-related modification or accommodation.

Materials that are provided to the Board of Directors after the meeting packet is compiled and distributed will be made available for public review during normal business hours at the District office located at 12770 Second Street, Yucaipa. Meeting materials are also available on the District's website at www.yvwd.dst.ca.us

VI. Capital Improvement Projects

- A. Status Report on the Installation of New Mesh Strainers at the Wochholz Regional Water Recycling Facility [[Workshop Memorandum No. 18-169 - Page 108 of 193](#)]
- B. Overview of the Sewer Mainline Crossing within the Summerwind Residential Development - Calimesa [[Workshop Memorandum No. 18-170 - Page 109 of 193](#)]
- C. Status Report on the Installation of Hardscape Landscape Material around Reservoir R-13.1 at the Yucaipa Valley Regional Water Filtration Facility [[Workshop Memorandum No. 18-171 - Page 111 of 193](#)]

VII. Policy Issues

- A. Discussion Regarding the Development of a Policy Related to Accessory Dwelling Units and Other Multiple Unit Developments [[Workshop Memorandum No. 18-172 - Page 113 of 193](#)]

VIII. Development Related Items

- A. Discussion Regarding the Formation and/or Participation in a Community Facilities District for the Summerwind Project - Calimesa [[Workshop Memorandum No. 18-173 - Page 117 of 193](#)]
- B. Overview of a Proposed Development Agreement with Lennar Homes for the Summerwind Development - Calimesa [[Workshop Memorandum No. 18-174 - Page 126 of 193](#)]

IX. Administrative Items

- A. Presentation of the Unaudited Financial Report for the Period Ending on June 30, 2018 [[Workshop Memorandum No. 18-175 - Page 130 of 193](#)]
- B. Authorization to Post Delinquent accounts to the Property Tax Rolls of San Bernardino County and Riverside County [[Workshop Memorandum No. 18-176 - Page 155 of 193](#)]
- C. Consideration of Consolidating 457(b) Deferred Compensation Plans with VOYA Financial [[Workshop Memorandum No. 18-177 - Page 163 of 193](#)]
- D. Consideration of Implementing a New Customer Utility Billing Portal and Payment Platform [[Workshop Memorandum No. 18-178 - Page 165 of 193](#)]
- E. Consideration of a GASB 75 Compliance – Actuarial Report [[Workshop Memorandum No. 18-179 - Page 166 of 193](#)]
- F. Consideration of Purchasing District Vehicles [[Workshop Memorandum No. 18-180 - Page 167 of 193](#)]
- G. Discussion Regarding the Preparation of Information to Communicate with Customers, Regulators and Stakeholders [[Workshop Memorandum No. 18-181 - Page 175 of 193](#)]
- H. Discussion Regarding the Schedule for Meetings and Business Hours During the 2018 Holiday Season [[Workshop Memorandum No. 18-182 - Page 177 of 193](#)]
- I. Consideration of Resolution No. 2018-xx Supporting the Grant Application for a Title XVI Water Reclamation and Reuse Project from the United States Bureau of Reclamation [[Workshop Memorandum No. 18-183 - Page 178 of 193](#)]
- J. Consideration of Resolution No. 2018-xx Supporting an Application for a Small-Scale Water Efficiency Project for Fiscal Year 2018 Grant from the United States Bureau of Reclamation [[Workshop Memorandum No. 18-184 - Page 181 of 193](#)]

X. Director Comments

XI. Announcements

- A. July 17, 2018 at 6:00 p.m. - Regular Board Meeting
- B. July 31, 2018 at 4:00 p.m. - Board Workshop
- C. August 7, 2018 at 6:00 p.m. - Regular Board Meeting
- D. August 14, 2018 at 4:00 p.m. - Board Workshop
- E. August 21, 2018 at 6:00 p.m. - Regular Board Meeting
- F. August 28, 2018 at 4:00 p.m. - Board Workshop
- G. September 4, 2018 at 6:00 p.m. - Regular Board Meeting
- H. September 11, 2018 at 4:00 p.m. - Board Workshop
- I. September 18, 2018 at 6:00 p.m. - Regular Board Meeting
- J. September 25, 2018 at 4:00 p.m. - Board Workshop
- K. October 2, 2018 at 6:00 p.m. - Regular Board Meeting
- L. October 9, 2018 at 4:00 p.m. - Board Workshop
- M. October 16, 2018 at 6:00 p.m. - Regular Board Meeting
- N. October 30, 2018 at 4:00 p.m. - Board Workshop
- O. November 6, 2018 at 6:00 p.m. - Regular Board Meeting
- P. November 13, 2018 at 4:00 p.m. - Board Workshop
- Q. November 20, 2018 at 6:00 p.m. - Regular Board Meeting
- R. November 27, 2018 at 4:00 p.m. - Board Workshop
- S. December 4, 2018 at 6:00 p.m. - Regular Board Meeting
- T. December 11, 2018 at 4:00 p.m. - Board Workshop
- U. December 18, 2018 at 6:00 p.m. - Regular Board Meeting
- V. ~~December 25, 2018 at 4:00 p.m. - Board Workshop~~ Canceled
- W. ~~January 1, 2019 at 6:00 p.m. - Regular Board Meeting~~ Canceled
- X. January 8, 2019 at 4:00 p.m. - Board Workshop
- Y. January 15, 2019 at 6:00 p.m. - Regular Board Meeting
- Z. January 29, 2019 at 4:00 p.m. - Board Workshop

XII. Closed Session

- A. Conference with Real Property Negotiator(s) (Government Code 54956.8)
 Property: Assessor's Parcel Numbers: 413-380-005
 Agency Negotiator: Joseph Zoba, General Manager
 Negotiating Parties: Johnson
 Under Negotiation: Terms of Payment and Price

XIII. Adjournment

Staff Report



Yucaipa Valley Water District

Please Join Us - AUGUST 10, 2018



For the 12th Annual San Bernardino County Water Conference

Topics...

- What is our Plan B to the California WaterFix?
- Who owns the water in California?
- 2017-2018 Legislative Recap
- Countywide water inventory update
- Special Guest Speakers:
 - Jack Simes, US Bureau of Reclamation
 - Bryan Willett, Cyber Squad Supervisor, FBI

Friday, August 10, 2018
 9:00 a.m. - 1:00 p.m.
 (Registration & Networking at 7:30 a.m.)

ONTARIO DOUBLETREE HOTEL
 222 N Vineyard Ave
 Ontario, CA 91764

TO REGISTER:
 Seating is limited
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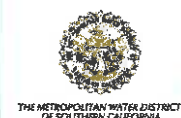
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**Friday, August 10, 2018
DoubleTree Hotel, Ontario**

- 9:00 a.m. WELCOME**
- 9:05 a.m. OPENING REMARKS**
- 9:10 a.m. FEATURED SPEAKER**
Jack Simes - acting Area Manager for Southern California, Bureau of Reclamation
- 9:30 a.m. BREAK AND VENDOR SHOWCASE**
- 10:00 a.m. PANEL 1A – WHAT IS PLAN B?**
Hear from local agencies how the WaterFix is actually Plan B and highlight the planning and work underway for the past 10-15 years to become sustainable.
- 10:00 a.m. PANEL 1B – WHOSE WATER IS IT, ANYWAY?**
The short answer is the people of California. However, the longer answer is more complicated. Our panel will discuss management and water rights and how they affect groundwater banking and restrictions during drought cycles and the sale of water.
- 10:50 a.m. BREAK**
- 11:00 a.m. PANEL 2A – 2017-2018 LEGISLATIVE SESSION RECAP**
Analysts will provide valuable insight on legislation moving through the Capitol, what these bills mean and how we can better advocate for the region.
- 11:00 a.m. PANEL 2B – UPDATE TO THE COUNTYWIDE WATER INVENTORY**
Some of the questions our panel will address are:
- Does improved economy affect inventory?
 - Does efficiency offset improved economic activity?
 - How does the inventory impact the building community?
- 12:00 p.m. LUNCH**
- 12:20 p.m. CYBER SECURITY AND THREATS**
SPECIAL GUEST: Bryan Willett - FBI Supervisory Special Agent, cyber squad supervisor for the Los Angeles Field Office at Federal Bureau of Investigation
- 12:50 p.m. CLOSING REMARKS**

Algae Bloom Closes Diamond Valley Lake

Drinking water will not be affected by the bacteria, authorities say

By [Austin Green](#)

Published at 8:03 PM PDT on Jun 22, 2018



Diamond Valley Lake was temporarily closed for recreation due to an algae bloom on June 21, 2018.

All recreational activities at Diamond Valley Lake have been suspended indefinitely due to a large bloom of blue-green algae at the bottom of the lake, the Metropolitan Water District of Southern California announced Thursday.

Boating, fishing and hiking are just some of the activities suspended around the lake until the district determines it is safe to use again. The algae, called cyanobacteria, sometimes releases harmful cyanotoxins into the water, which in high concentrations can be poisonous when ingested.

"We do know that this bloom is producing some of these cyanotoxins, and so that's why we've taken this precautionary measure of temporarily closing the lake," said Paul Rochelle, microbiology unit manager.

Water quality experts, however, said local drinking water will not be impacted at all.

"This is a recreation issue, not a drinking water issue," said Mic Stewart, the Metropolitan Water District quality manager, in a news release. "We are not using [the lake] as a drinking water source right now. Even if we did, our processes for withdrawing the water from the lake and treating it will ensure its safety."

Metropolitan posted signs at the lake last week telling visitors and their pets to stay away from the water due to the algae bloom, which looks like mats of green scum floating on the water.

Rochelle said he and his team will continue to monitor the situation and test bacterial levels daily. The district will lift suspensions "when conditions improve," which could take a week or more.

Rochelle expects the lake to reopen far before the end of summer, but cannot say exactly when due to the unpredictability of the natural phenomenon.

"It could be days, it could be weeks," Rochelle said. "In some extreme circumstances, blooms like these have lasted for a month or longer, but I don't expect that to be the case here."

Source: <https://www.nbclosangeles.com/news/local/Algae-Bloom-Closes-Diamond-Valley-Lake-486297391.html>

Presentations



Yucaipa Valley Water District

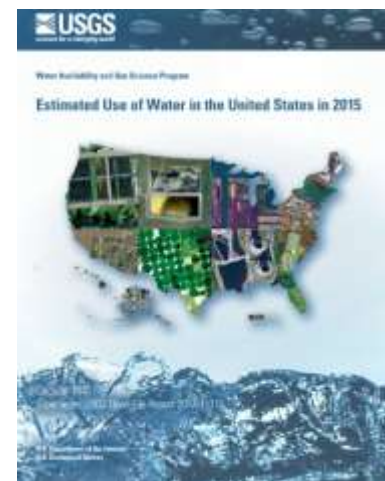


Date: July 10, 2018
From: Joseph B. Zoba, General Manager
Subject: Overview of the Estimated Use of Water in the United States in 2015 by the United States Geological Survey

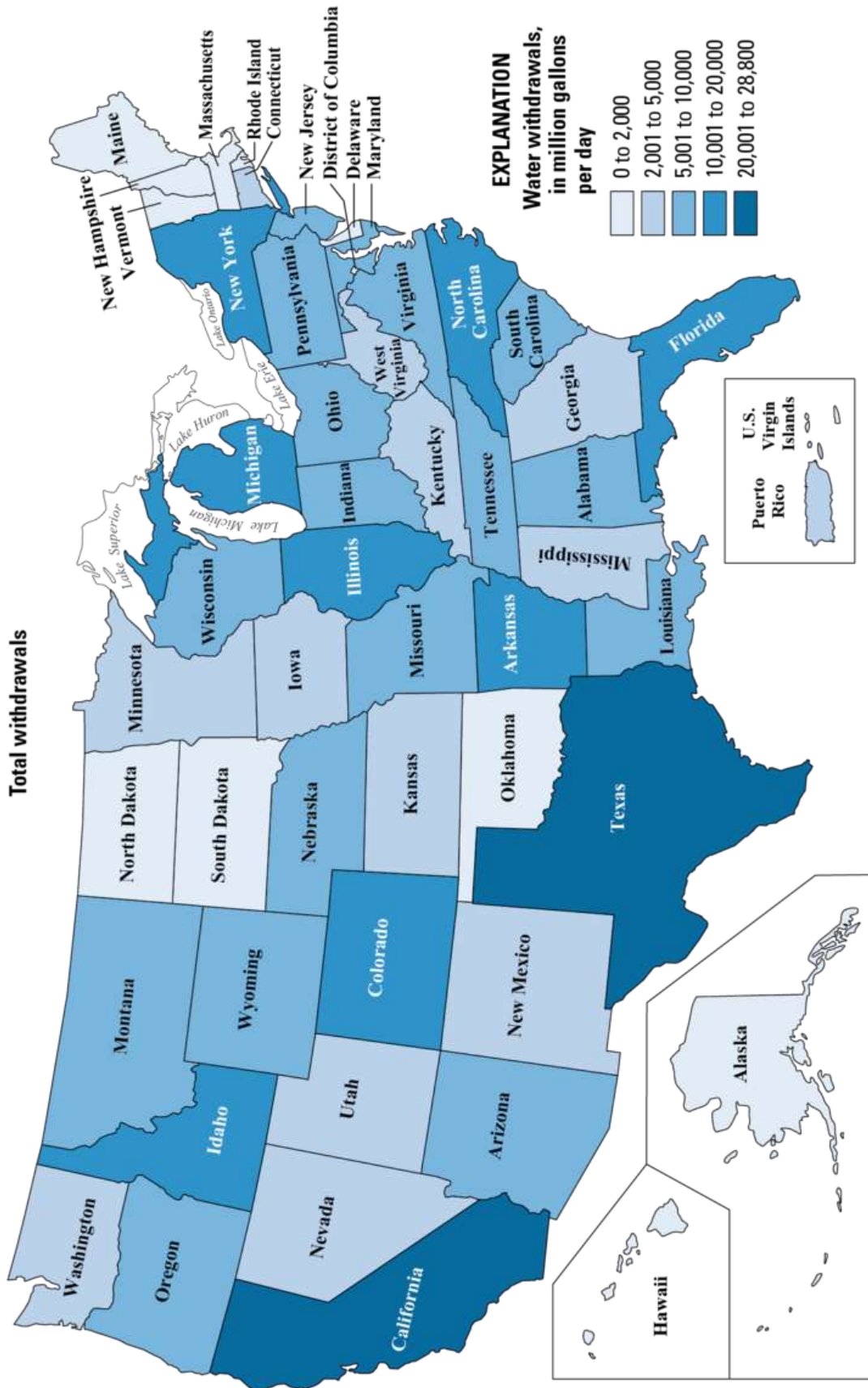
According to a recently release report from the United States Geological Survey (USGS), water use across the United States has reached its lowest recorded level in 45 years.

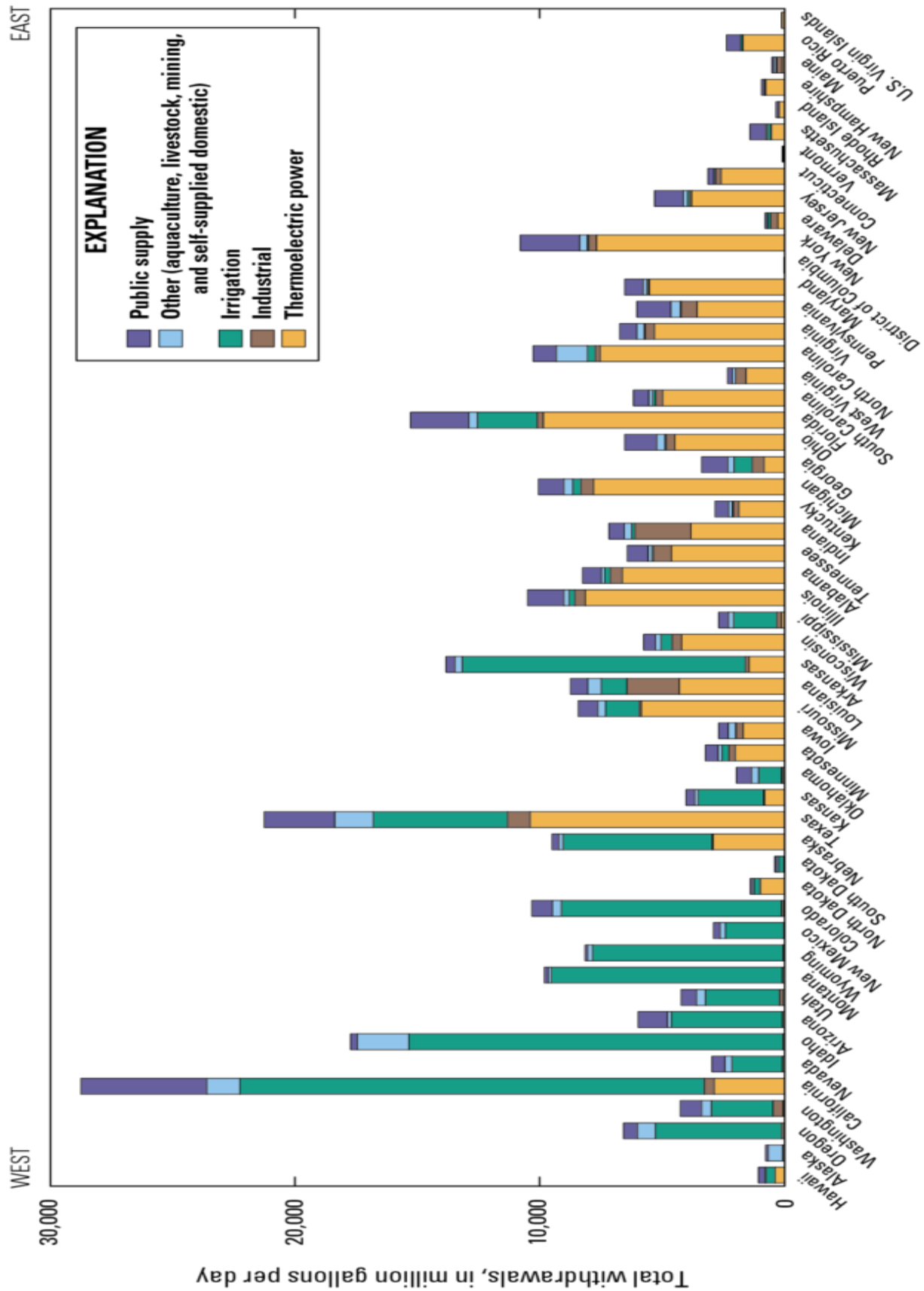
Water withdrawn for thermoelectric power generation was the largest use nationally at 133 Bgal/d (1 Bgal/d = 1,000 million gallons per day), with the other leading uses being irrigation and public supply, respectively. Withdrawals declined for thermoelectric power generation and public supply but increased for irrigation. Collectively, these three uses represented 90 percent of total withdrawals:

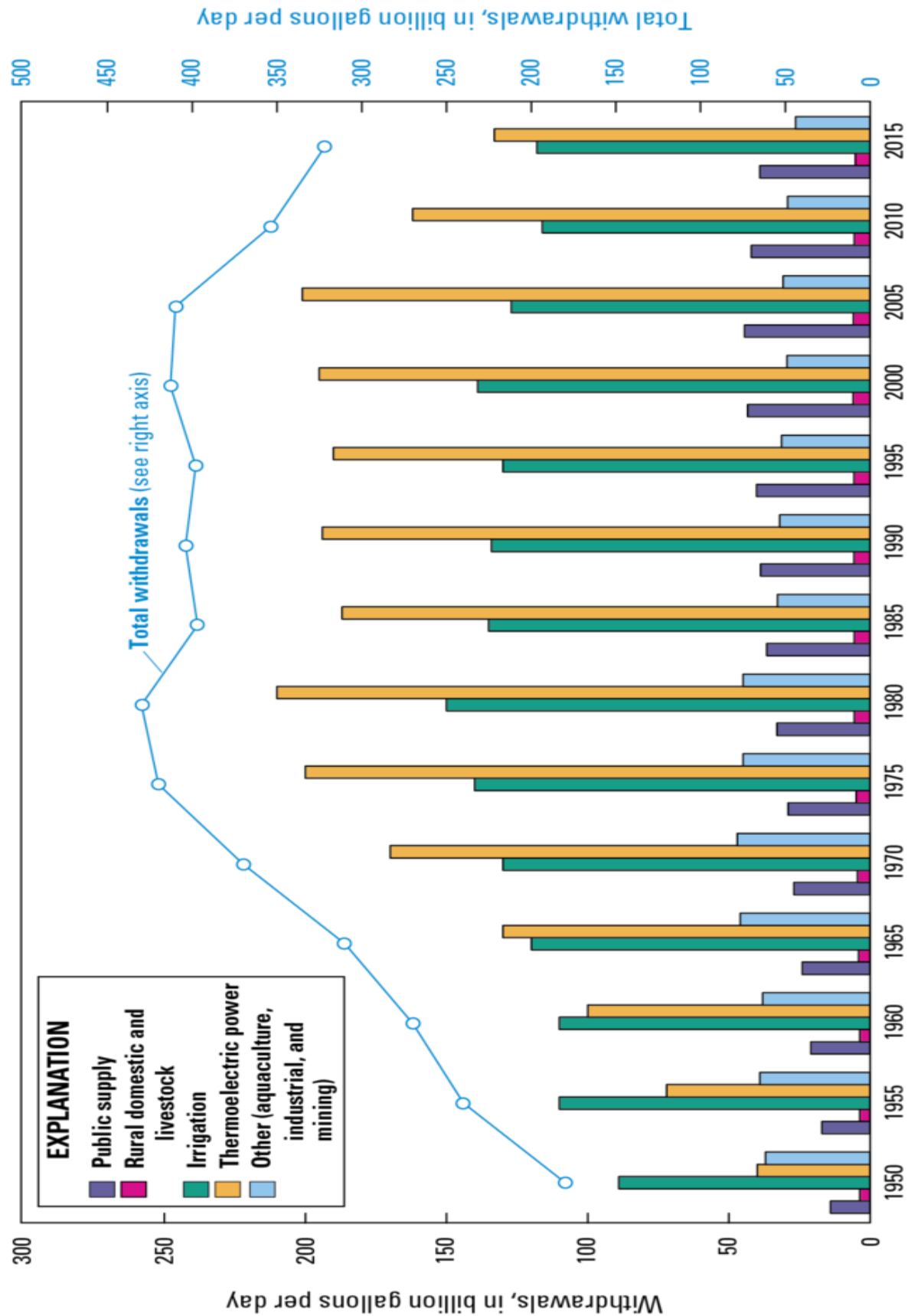
- Thermoelectric power decreased 18 percent from 2010, the largest percent decline of all categories;
- Irrigation withdrawals (all freshwater) increased 2 percent; and
- Public-supply withdrawals decreased 7 percent.



The full report can be viewed at the USGS website: <https://pubs.usgs.gov/circ/1441/circ1441.pdf>

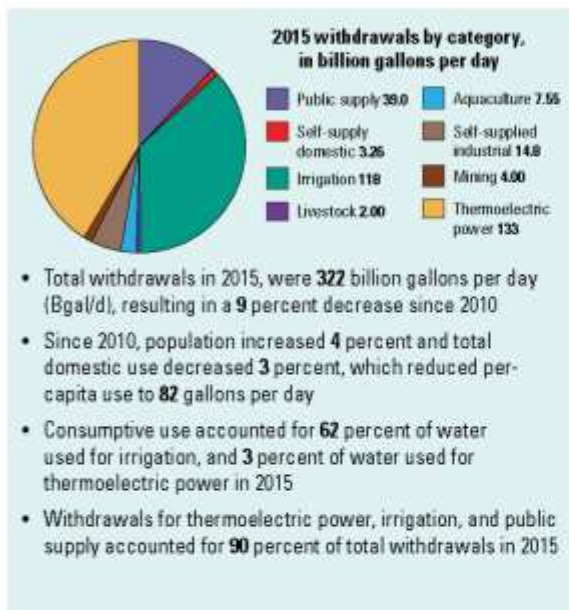








Summary of Estimated Water Use in the United States in 2015



A total of **322** Bgal/d of water withdrawals was reported for eight categories of use in the United States in 2015, which was 9 percent less than in 2010 (**354** Bgal/d), and continued a declining trend since 2005. The decline in total withdrawals in 2015 primarily was caused by significant decreases (**28.8** Bgal/d) in thermoelectric power, which accounted for **89** percent of the decrease in total withdrawals. Between 2010 and 2015, withdrawals decreased in all categories except irrigation (**2** percent increase), mining (**1** percent increase), and livestock (**no change**). Fresh surface-water withdrawals (**198** Bgal/d) were **14** percent less than in 2010, and fresh groundwater withdrawals (**82.3** Bgal/d) were about **8** percent more than in 2010. Saline surface-water withdrawals (**38.6** Bgal/d) were **14** percent less than in 2010, and saline groundwater withdrawals (**2.34** Bgal/d) were 5 percent more than in 2010. Total population in the United States in 2015 (**325** million) increased by 4 percent (**12.4** million) from 2010, which was similar to the increase between 2005 and 2010. For the first time since 1995, consumptive use for irrigation and thermoelectric power were reported. Consumptive use accounted for **62** percent (**73.2** Bgal/d) of water used for irrigation, and **3** percent (**4.31** Bgal/d) of water used for thermoelectric power in 2015.

Water Use by Category

Withdrawals for thermoelectric power, irrigation and public supply accounted for 90 percent of total withdrawals in the United States. Withdrawals by category and State, arranged from west to east (fig. 1) indicate the general geographical pattern of water use across the country. Thermoelectric-power withdrawals were prominent in the east and irrigation withdrawals were prominent in the west. Public-supply withdrawals are greatest in the states with the largest population centers.

Withdrawals for **public supply** were about 12 percent (39.0 Bgal/d) of total withdrawals, and 61 percent of public-supply withdrawals were from surface-water sources. Public-supply systems deliver water to domestic, industrial, commercial, and other users, and 60 percent of public-supply withdrawals provided 87 percent of the United States population (283 million) for domestic indoor and outdoor residential uses. Other residences are self-supplied from wells or other sources; these withdrawals were about 1 percent (3.26 Bgal/d) of total withdrawals and provided water to about 13 percent (42.5 million) of the United States population. Groundwater was used for 98 percent of the self-supplied domestic withdrawals.

Withdrawals for **irrigation** were 37 percent (118 Bgal/d) of total withdrawals, and 42 percent of freshwater withdrawals. Lands irrigated with sprinkler or micro-irrigation systems accounted for 63 percent of total irrigated lands. Surface water supplied about 52 percent of the total irrigation withdrawals. The 17 conterminous Western States accounted for 81 percent of total irrigation withdrawals, and 74 percent of the total irrigated lands in the United States.

Withdrawals for **livestock** and **aquaculture** combined were 3 percent of the total withdrawals for all categories in 2015. Total withdrawals for livestock were 2.00 Bgal/d and 62 percent was from groundwater. Total withdrawals for aquaculture were 7.55 Bgal/d and 79 percent were from surface water.

Self-supplied industrial withdrawals were almost 5 percent (14.8 Bgal/d) of total withdrawals, and surface water provided 82 percent. Withdrawals for **mining** were about 1 percent (4.00 Bgal/d) of total withdrawals, and groundwater supplied 72 percent, mostly (65 percent) from saline water.

Water used for **thermoelectric power** accounted for 41 percent of total withdrawals (133 Bgal/d), and surface water supplied almost all withdrawals; 72 percent of the surface-water withdrawals were freshwater. Powerplants that used once-through cooling systems accounted for 96 percent of all thermoelectric-power withdrawals. More than 25 percent of thermoelectric-power withdrawals and power production was in Texas, Florida, Illinois, and Michigan.

Water Use Trends, 1950-2015

Every 5 years since 1950, the U.S. Geological Survey (USGS) has compiled and estimated water-use information in cooperation with State, Federal, and local agencies, making it possible to evaluate water-use trends through time. Total withdrawals steadily increased from 1950 (180 Bgal/d) to the peak in 1980 (430 Bgal/d), declined in 1985 (397 Bgal/d), and then remained fairly steady until 2005 (410 Bgal/d). The sharp decline in 2010 (354 Bgal/d) has continued through 2015 (322 Bgal/d). Total withdrawals for 2015 were lower than 1970, and were about the same as 1965 (310 Bgal/d). Thermoelectric-power withdrawals increased from 1950 to 1980, then fluctuated slightly through 2005, and since 2005 have declined sharply because of increased efficiency and closures of plants with once-through cooling systems. Irrigation withdrawals steadily increased from 1950 to 1980, when they peaked (150 Bgal/d), then remained steady through 2005 (127 Bgal/d), declined in 2010 (116 Bgal/d) and slightly increased in 2015 (118 Bgal/d). The trend toward using more efficient irrigation systems continued with 10 percent more irrigated lands using sprinkler systems (including micro-irrigation) in 2015 than in 2010; lands using surface (flood) irrigation systems decreased by 11 percent. Although population within the United States has steadily increased since 1950, public-supply withdrawals have varied. Public-supply withdrawals gradually increased from 1950 (14 Bgal/d), to a peak in 2005 (44.4 Bgal/d), decreased for the first time in 2010 (42.0 Bgal/d), and have continued to decrease at 7 percent in 2015 (39.0 Bgal/d). Less water was used for domestic purposes in 2015 than in 2010, which resulted in a decrease of the total domestic per-capita use rate from 88 gallons per capita per day (GPCD) in 2010, to 82 GPCD in 2015. Trends for combined categories of industrial, mining, aquaculture, livestock, and commercial (reported from 1985 to 1995), show that total combined withdrawals were steady from 1950 to 1985, then

decreased in 1985, mostly because of large decreases in industrial withdrawals between 1980 and 1985. This decreasing trend has continued until 2015, even though livestock, mining, and aquaculture uses have increased over time.

Importance of Water-Use Data for the United States

The most recent USGS publication of water-use data that is part of the series of reports that began in 1950, and is the basis of this summary, is USGS Circular 1441, "Estimated use of water in the United States in 2015" (Dieter and others, 2018) along with a data release (Dieter and others, 2017). Federal, State, and local agencies have a key role in the collection and dissemination of water-use data. By compiling and publishing water-use estimates for the Nation, the USGS provides water-resource planners with the information needed to address issues related to water-resource allocation and environmental effects at National, regional, and State levels. Water-use data also is a key component of the water-budget approach for the National Water Census (<http://water.usgs.gov/watercensus>), which is a primary effort of the USGS Water Availability and Use Science Program (<https://www.usgs.gov/science/mission-areas/water/water-availability-and-use-science-program>) that includes research to improve methods of collection and estimation of water-use data.

References Cited

Dieter, C.A., Linsey, K.S., Caldwell, R.R., Harris, M.A., Ivshenko, T.I., Lovelace, J.K., Meupin, M.A., and Barber, N.L., 2017, Estimated use of water in the United States county-level data for 2015: U.S. Geological Survey data release, <https://doi.org/10.5066/777B15V5>.

Dieter, C.A., Meupin, M.A., Caldwell, R.R., Harris, M.A., Ivshenko, T.I., Lovelace, J.K., Barber, N.L., and Linsey, K.S., 2018, Estimated use of water in the United States in 2015: U.S. Geological Survey Circular 1441, 65 p., <https://doi.org/10.3133/cir1441>.

By Molly A. Meupin

For More Information

For more information concerning this publication, contact:
 USGS National Water-Use Science Project Team
wu-info@usgs.gov
 Or visit the USGS Water-Use Web site at:
<http://water.usgs.gov/watuse>

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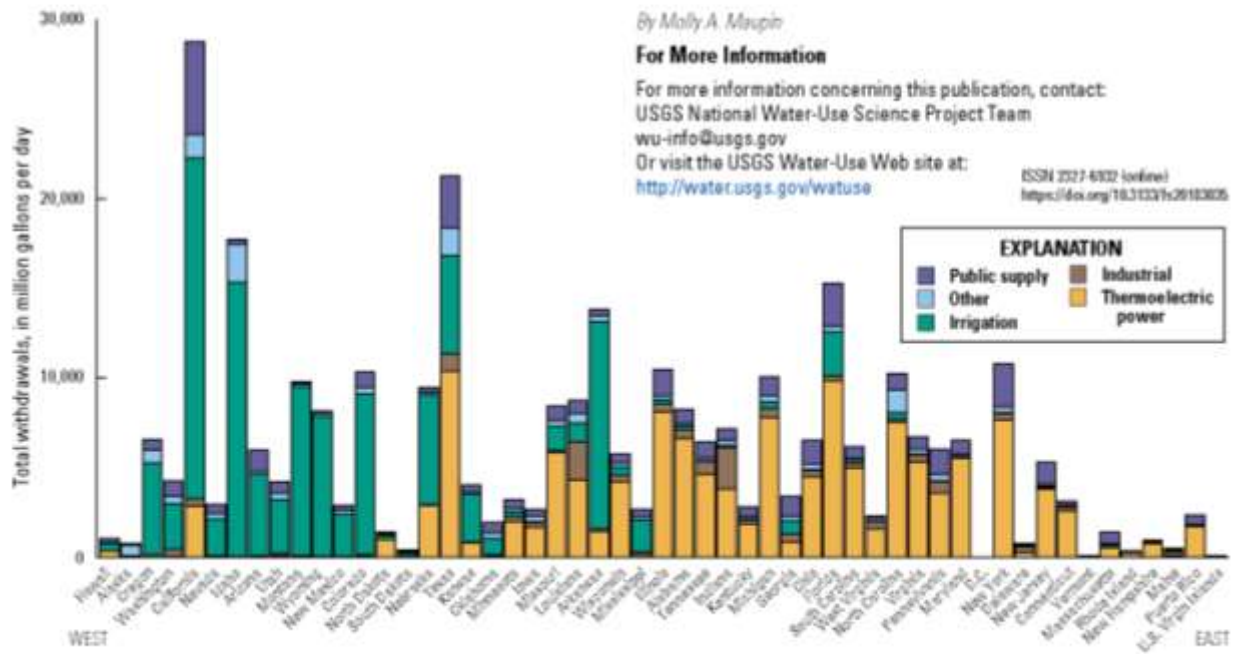


Figure 1. Withdrawals by category in 2015. States are arranged geographically from west to east. Units are in million gallons per day (Mgal/d); 1 billion gallon per day is equal to 1,000 Mgal/d.



Date: July 10, 2018

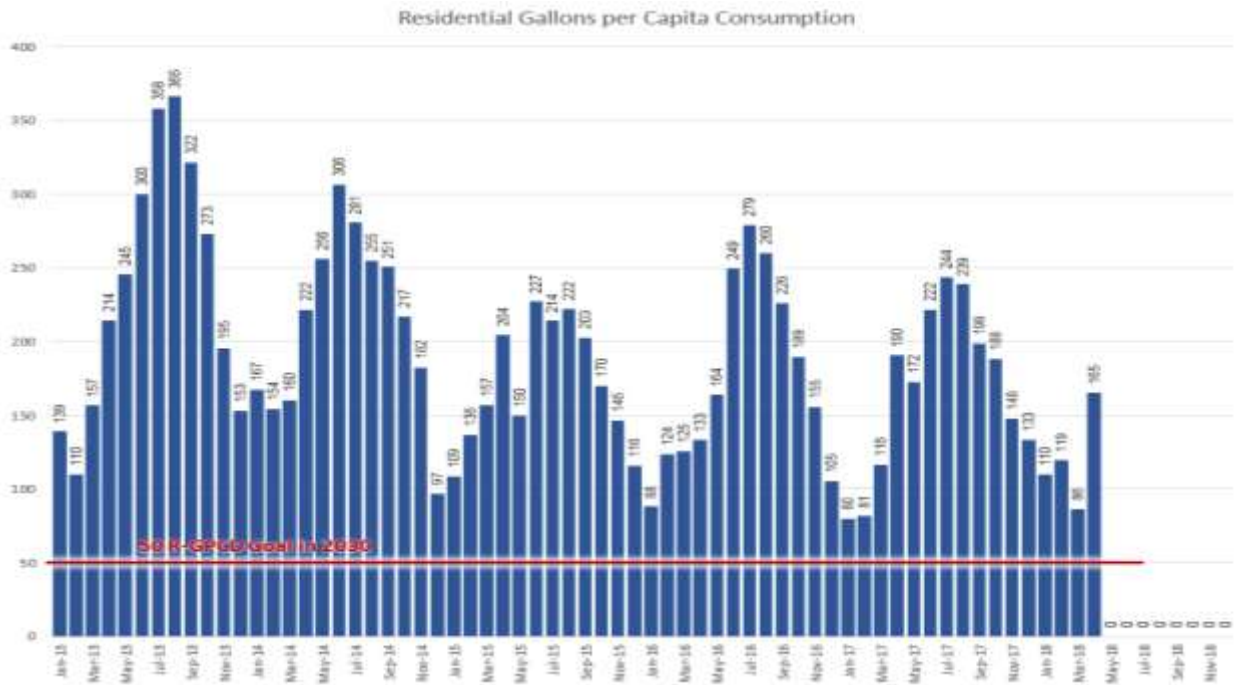
From: Joseph Zoba, General Manager
Jennifer Ares, Water Resource Manager

Subject: Initial Steps Proposed to Achieve New Water Conservation Legislation - Senate Bill No. 606 and Assembly Bill No. 1668

On May 31, 2018, Governor Jerry Brown signed two new bills related to water conservation. Both pieces of legislation were created to prepare California for the next drought by setting forth permanent water use restrictions.

Senate Bill No. 606 requires urban water providers to calculate an urban water use objective no later than November 1, 2023, and by November 1 every year thereafter. This legislation also modifies the requirements for the preparation of urban water management plans.

Assembly Bill No. 1668 establishes a 55-gallon per capita daily water use for indoor residential water consumption starting in 2022, and 50-gallons per capita daily water use by 2030. Violations can face fines of \$1,000 per day if they don't meet them, and \$10,000 a day during drought emergencies.



The red line indicates the State's indoor water use requirement by the year 2030. The blue bars indicate Yucaipa Valley Water District's monthly trend for indoor and outdoor water use. Indoor water use projections will be calculated to define the methods and programs to meet the 2030 goal.

On June 22, 2018, the California Water Efficiency Partnership released a FAQ on the long-term water conservation legislation stating that “there are no immediate impacts to customers from these new laws”, while also acknowledging in the next sentence that “...many details for implementing the new water use requirements will be determined over the next several years...” The full FAQ is attached for your review.

The uncertainty associated with the new legislation has justifiably caused consternation due to the lack of a statewide implementation plan and concise compliance methodologies. To ensure the District staff is engaged throughout the process, we are now members of the California Water Efficiency Partnership and the Alliance for Water Efficiency. Our active involvement in these organizations is intended to help shape the implementation of these new laws.

In the near term, based on current information, the District staff will be implementing the following strategies to comply with the early versions of this legislation.

- Conduct a renewed evaluation, consideration, and implementation of creative water conservation measures.
- Install new water meters for existing customers that provide real-time information about the water usage on their property -- this is the new Advanced Metering Infrastructure (AMI) that is currently being installed throughout the community.
- Reformat monthly utility bills to provide customers with water usage in units of gallons, instead of the current units of thousand gallons (kgal).
- Install dual-meters for new residential homes -- these meters will measure and report to customers the amount of indoor and outdoor water usage in gallons.
- Expand the recycled water system in new residential tracts to provide recycled water for irrigation (outdoor water use) for new residential homes -- This will increase the total amount of recycled water use in our community.
- Eliminate drinking water for outdoor irrigation at new homes -- instead we will be using recycled water for outdoor irrigation. This will decrease the total amount of drinking water used in our community.
- Increase tracking of water loss reporting and reduction of water losses throughout the drinking water and recycled water distribution systems with active leak system monitoring.
- Proactively complete pipeline replacements with District staff to reduce the number of leaks on older pipelines.

CaIWEP FAQ

JUNE 22, 2018

Providing Leadership, Collaboration, and Expertise on California's Unique Water Efficiency Issues

FACT SHEET ON LONG-TERM CONSERVATION LEGISLATION

Overview

On May 31, 2018 Gov. Jerry Brown signed into law two new bills that will require urban water providers throughout California to set new permanent water use targets for their service areas by 2022. Senate Bill 606 (Hertzberg) and Assembly Bill 1668 (Friedman) provide a framework for setting water use targets, as well as implementing and enforcing the new water use requirements. There are no immediate impacts to customers from these new laws.

While many details for implementing the new water use requirements will be determined over the next several years, the overall framework includes:

- A standard for indoor residential water use of 55 gallons per person per day—dropping incrementally to 50 gallons beginning in 2030.
- A standard for outdoor residential water use (to be determined) based upon a community's climate and the amount of landscaped area.
- A standard for water loss due to leaks in water system pipes (to be determined).

These three standards will be calculated and added together to represent an overall water use target (in gallons) for the water provider. Although some local water providers in California base their rates on a water budget for each customer, the new state laws do not contain water use targets for individual residents or businesses.

These laws outline an overall framework to guide urban water providers in setting water use targets, which must be approved by the State Water Resource Control Board (State Water Board). However, urban water providers will determine how their service area can best achieve the new water use target. Urban water providers will set and monitor targets for their service area as a whole (not on an individual basis) and will determine how to help their customers collectively reach the new targets. Urban water providers who do not meet their targets can be fined by the State Water Board (up to \$1,000 per day during non-drought years and \$10,000 per day during drought emergencies). Fines apply to the urban water provider and not to individuals.

In California, droughts are a part of life, and the next dry year is always right around the corner. Californians have consistently shown their willingness to do their part to use water efficiently no matter the weather. Urban water providers look forward to continuing their partnership with customers to implement these new laws and to make water conservation a California way of life.



716 10th Street, Ste 200 | Sacramento, CA 95814
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FREQUENTLY ASKED QUESTIONS

How will the new laws impact customers?

There are no immediate impacts to customers. Over the next several years, specific water use targets will be set for a water provider's overall service area (not on an individual basis) based upon the standards outlined in the laws. Once water provider-level targets are established in 2022 and implementation begins in 2023, water providers may choose to work with individual households and businesses to increase their water efficiency through available rebates, services and programs.

Will it be illegal to take a shower and wash clothes in the same day, as some media have reported?

No. There is nothing in the laws that specifies when or how often a person may shower or do laundry. The new laws outline an overall framework for setting and meeting water use targets at the water provider level. While the laws' framework does include a goal for individual indoor water use of 55 gallons per person per day beginning in 2022, this applies on an overall system-wide basis (and not an individual basis).

How hard will it be to meet the indoor target of 55 gallons per person per day?

It should not be hard. It's important to note that the indoor target of 55 gallons per person per day is not a goal for individual water use but will be measured across a water provider's entire service area and does not include outdoor water use. That said, water industry experts are projecting that many people are already meeting this indoor target or do not have far to go. The Alliance for Water Efficiency has an online water calculator that can estimate how much water a household uses indoors. You can find it at www.home-water-works.org/calculator. Additionally, many water providers offer rebates for indoor fixtures like toilets and clothes washers to incentive customers to upgrade to more efficient WaterSense and ENERGY STAR labeled models.

Will water providers be monitoring and evaluating individual water use as part of the new laws?

No. There is no requirement in the new laws that individual households must meet a specific target. The new laws provide a framework for setting targets, but those will be applied on a system-wide basis, and progress toward achieving targets will be reviewed on a system-wide basis.

How will the new laws impact businesses in California?

While the new laws do not set specific water use targets for business, they do outline a framework for creating new water efficiency performance measures for businesses—these are recommended actions for specific business sectors to improve water efficiency over time. Performance measures will be determined over the next several years, and the process will include opportunities for public input.



716 10th Street, Ste 200 | Sacramento, CA 95814
P 916-552-5885 | F 916-552-5877 | W WWW.CALWEP.ORG

Will individual residents and businesses be fined for not meeting water use targets?

The regulations and associated water use targets are required for the water provider as a whole (including all customers) NOT at the individual resident or business level. Therefore, individuals and businesses will not be fined by the state for not meeting the water provider water use target. However, individuals and businesses may be fined for violating current local water provider water waste ordinances and guidelines. Note that such ordinances and guidelines exist currently and are not new.

What are water providers doing to help implement the law?

Water providers will be working with the State Water Board and others over the next several years to define how the new laws will be implemented. They are also laying the groundwork by investing in research, data and programs at the local level to better understand how the new laws might work within their communities. In the meantime, water providers are continuing to encourage conservation by offering a variety of rebates to increase the efficiency of indoor and outdoor water use through the replacement of older, less efficient fixtures such as toilets, clothes washers and irrigation equipment with newer more efficient models. Check your water provider's website for available rebates and services.

What are the next steps for implementing the new laws?

The laws will now be translated into regulations, which will outline details and rules for implementing the intent of the laws at the local level. Stakeholders (water providers, non-profit organizations and other interested parties) will work together over the next several years with state agencies (including the State Water Resources Control Board and the California Department of Water Resources) to finalize the regulations by the required deadline of 2022.

Why was the new law created?

The new rules were prompted by California's frequent cycles of drought and are meant to better prepare California for the next drought and the future effects of climate change on the state's water supplies. The overall goal is to make water conservation a way of life in California and a permanent part of the state's culture.

When will the new water conservation targets take effect?

Water providers must set new water conservation targets by 2022 and will be expected to begin implementing them by 2023 and every year after that. Again, these targets are service-area wide and not for individual households.

Will residents have to go back to saving water as they did during the drought?

No. The new laws create long term water use targets not short-term conservation targets like those implemented during the drought. The long-term targets are meant to inspire greater efficiency over time rather than mandate short-term cutbacks that require extreme measures such as not watering your lawn or flushing the toilet less.



716 10th Street, Ste 200 | Sacramento, CA 95814
P 916-552-5885 | F 916-552-5877 | W WWW.CALWEP.ORG



Date: July 10, 2018

From: Joseph Zoba, General Manager

Subject: Overview of the State Water Resources Control Board Proposed Recycled Water Policy Amendment and Suggested Comments for Modifying the Proposed Policy

The State Water Resources Control Board first adopted a Recycled Water Policy in 2009 and was amended in 2013 to specify the monitoring requirements for groundwater recharge projects. The current Recycled Water Policy includes a provision to reconvene a Science Advisory Panel every five years to update its recommendations for monitoring recycled water quality.

Definition of Recycled Water

“water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource”

— (Wat. Code § 13050(n))

Legislation Supports the Use of Recycled Water

The California state legislature has declared that

“...It is the intention of the Legislature that the state undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the state”.

— (Wat. Code § 13512)

The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code section 13050(n), in a manner that implements state and federal water quality laws. For the purpose of this Policy, recycled water refers to the reuse of treated wastewater derived from municipal sources, i.e., water that is covered under California Code of Regulations Title 22, Water Recycling Criteria. Other types of water reuse include greywater, agricultural return water, industrial wastewater, and water produced from oil field operations. These types of water reuse are regulated inconsistently through other programs.

The Recycled Water Policy provides goals for recycled water use in California, guidance for use of recycled water that considers protection of water quality, criteria for streamlined permitting of recycled water projects, and requirements for monitoring recycled water for constituents of emerging concern (CECs).

Comments regarding the proposed policy have been concisely submitted by organizations that represent the interests of the Yucaipa Valley Water District. This comment letter should be used as a framework for discussing the impacts of the proposed policy changes with local legislators.



CALIFORNIA URBAN WATER AGENCIES



June 26, 2018

Felicia Marcus
 Chair, State Water Resources Control Board
 1001 I Street, 24th Floor
 Sacramento, CA 95814

Comment Letter – Proposed Recycled Water Policy Amendment
(sent via email)

Dear Chair Marcus and Members of the Board:

On behalf of Water Reuse California (WRCA), the California Association of Sanitation Agencies (CASA), California Municipal Utilities Association (CMUA), the Association of California Water Agencies (ACWA) and California Urban Water Agencies (CUWA), we thank you for the opportunity to submit comments on the draft amendments to the Recycled Water Policy (Policy). To stretch California's limited water supplies, our organizations support maximizing the beneficial use of recycled water in California, whether it be for drinking water, or for non-potable applications, such as for landscape irrigation, agriculture or other purposes.

We appreciate the time and effort spent developing the revised Policy. While we support many of the changes, our members have identified several aspects of the draft that are of significant concern. Our comments below are intended to ensure that the Policy continues to encourage and enhance, rather than unnecessarily impede, future recycled water project development, as well as support the continued implementation of existing projects. Given the importance of these issues, we request that the Board take the time necessary to complete the Policy in a thoughtful and collaborative manner. In particular, given the significant concerns we continue to have about the Bioassay Monitoring provisions, we request that the Board postpone initiation of the peer review process until we have an opportunity to work with staff to try to reach consensus.

Maintain a Singular Goal of Increasing Recycled Water Statewide

Appropriately, the one goal of the current Policy is to increase water recycling in California. All of the actions within the Policy are intended to support this broad goal, which is also

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contained in the California Water Code, Section 13560. The draft Policy would add another parallel goal:

Minimize the direct discharge of treated municipal wastewater to enclosed bays, estuaries and coastal lagoons, and ocean waters, except where necessary to maintain beneficial uses. For the purpose of this goal, treated municipal wastewater does not include brine discharges from recycled water facilities or desalination facilities.

Our associations do not support the inclusion of this new goal. First, we view minimizing wastewater discharges only to the ocean and bays as a way to increase awareness of water recycling focused solely in coastal areas – not a statewide goal in and of itself. We support the Board's desire to analyze information that wastewater agencies report to the Board regarding the amount of wastewater discharged to the ocean and bays. This information can be used to assess how much water recycling is theoretically possible to reduce wastewater discharges to saline water bodies, but to make such an assessment useful, it must take into account a variety of factors including demand, costs, feasibility, brine management, service duplication restrictions, and potential permitting issues. Additionally, by elevating this concept to a Policy goal, the Board would be sending a message that recycling in inland areas for agriculture and other purposes is a lower priority than coastal recycling and provide a platform for those who say water recycling should not occur unless the wastewater would otherwise flow to a saline water body. We must respectfully disagree with this principle.

If the Board determines this concept must be retained in the Policy in some form, we ask that it be moved to the "Benefits" section of the Policy and be recast to encourage water recycling where wastewater is discharged to the ocean/bays/estuaries. We would be happy to work with your staff on appropriate language. The Board should also consider expanding the Benefits section to include other major opportunities to increase water recycling in California, such as encouraging the use of recycled water for agriculture in inland areas and the benefits of increasing recycled water use as a strategy for adapting to climate change.

We also request that the language in Section 3.2 about calling for the Board to establish mandates to achieve the goals in section 3.1 be deleted.

Annual Recycled Water Reporting

We are generally supportive of the annual recycled water reporting requirements included in the Policy. However, we ask that all other duplicative tracking of recycled water uses be discontinued. We understand that the Board may not have full control over other state agencies conducting the recycled water tracking so the

Board may want to include a statement in the Policy that this reporting is intended to be the sole way to track recycled water use in the state.

Additionally, we request that the monthly reporting for municipal wastewater treatment plant influent, production and disposal be modified to require reporting of quarterly data in an annual report at one time per year instead of setting a monthly report schedule. Further

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we ask that Section 3.2.1 expressly recognize that the volume of influent entering a wastewater treatment plan will not equal the volume of treated wastewater produced.

Restore Funding Incentives

As California continues to develop recycled water projects, it is critical that the Board make grants and loans available to provide an opportunity for smaller utilities to retrofit existing plants, when appropriate, to support water reuse applications, or build small-scale demonstration projects for producing recycled water. The 2009/2013 Recycled Water Policy provided funding incentives for water purveyors, stormwater agencies, and water recyclers. However, the proposed amendments to the 2018 Recycled Water Policy omit the funding provisions. We recommend that the Board retain funding incentives within the proposed policy to further the development of local water infrastructure projects and advance research for new, innovative technologies.

Wastewater Change Petitions

Over the last few years wastewater change petition requirements in Water Code Section 1211 have delayed many water recycling projects in California. During the CEQA scoping phase, staff acknowledged this problem and indicated that the proposed changes to this section of the Policy would clarify the institutional and interagency issues and streamline the process. Unfortunately, the proposed changes to the Policy create uncertainty rather than clarity, add new requirements to a process that is already prone to delays, and fail to address the very real institutional, scientific, and resource issues that characterize the current process.

There are two issues of major concern with this section of the Policy. First, the Policy states that the Division of Water Rights (DWR) may cumulatively consider the impacts from "past, present and probable future projects with the potential to decrease the streamflow." CEQA compliant projects will already have considered cumulative impacts of past and present projects, where applicable, so this provision appears to be duplicative. We understand that in some cases, where there are multiple proposed projects in a watershed, the Board may wish to employ a different approach to ensure instream uses are protected. This does not require a policy amendment; the Board is already taking such an approach with the Los Angeles River pilot project, which provides an opportunity to "test drive" this model. However, we are concerned that the policy as drafted has the potential to further slow down and complicate reviews for the majority of projects where this approach is not needed or appropriate.

Second, Section 5.1 adds a new requirement that prior to changing the point of discharge, place of use, or purpose of use of treated wastewater that **could** decrease the flow in any portion of a watercourse, or receiving state funding for the treatment or use of recycled water, a "determination" must be obtained from the Board staff that the project is in compliance with Section 1211.

We are concerned that even if the process for a "determination" is set up initially as a simple process (i.e., simple request and an email reply) it has the potential to become more complicated and burdensome over time, with the Board developing extensive forms that

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have to be completed and expanding the making of any such determination into a complicated and time-consuming process.

We understand this requirement may have been prompted by the failure of some applicants to understand and comply with Section 1211. Simply stating the obligation in the Policy will help raise awareness, and we believe that additional education and outreach would also be a useful way to ensure that project proponents understand the requirements of Section 1211. However, requiring issuance of an affirmative determination, as proposed in the Policy, has the potential to create additional delays for those who are compliant, and puts an additional burden on the Board's staff.

In light of this and other concerns related to Section 1211, we believe that the Board and the recycled water community would be better served by convening a stakeholder/interagency effort to develop a guidance or other document that sets forth the process, obligations, timelines and other important aspects of the program.

Salt and Nutrient Management Plans (SNMPs)

We support the change in the Policy that calls for Regional Board prioritization of SNMP development and thank staff for its inclusion. We believe it is important to devote limited resources to addressing those basins where salt and nutrients need to be managed to protect beneficial uses.

We continue to believe that the inclusion of the SNMPs within the Policy is misplaced. The SNMPs should be part of a larger stakeholder effort to manage the quantity and quality of groundwater in California. The passage of the Sustainable Groundwater Management Act (SGMA) in 2014 appears to be an opportunity to coordinate SNMPs with SGMA plans and reduce overlap among separate groundwater/water quality planning efforts.

Permitting of Recycled Water Projects

The draft Policy requires that all old engineering reports (before 2000) be reviewed and updated in two years. The draft Policy also states that all recycled water general orders from Regional Boards will expire in one year and agencies must transition to the 2016 General Order or other permit coverage for non-potable recycled water.

We are concerned that one year is not enough time to enroll all of the regional board permit holders in the 2016 General Order. If engineering reports need to be reviewed or updated, this could potentially take longer than a year, and recycled water permittees could be left without coverage through no fault of their own. We ask that the deadline be extended, or language included in the Policy allowing projects to continue while the transition is ongoing. We also note that agencies with existing permits that update their engineering reports and comply with all aspects of the Policy should be allowed to maintain master or individual permit coverage outside of the 2016 General Order.

Bioassay Monitoring: Follow CEC Science Advisory Panel Recommendation

While we support the advancement of monitoring through bioassays, we are very concerned about the proposed approach in the Policy. In April the science advisory panel released its

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final report on CECs --*Monitoring Strategies for Constituents of Emerging Concern in Recycled Water*. The report made a number of recommendations and observations on bioassay testing. These were:

- Two new bioassay tests (ER-a/AhR) should be added for groundwater recharge and reservoir augmentation potable reuse projects.
- The bioassay testing should be done in a deliberate three-phase approach that consists of a 3-5 year data collection period, a pilot implementation phase and finally, a full implementation phase with response actions associated with the results of the bioassay tests.
- The science advisory panel declared that response actions as a result of these tests in the data collection phase are "premature and thus not appropriate, until such methods are fully validated and certified by the appropriate entities." This statement is made in different ways eight separate times in the final report.
- A Bioscreening Implementation Advisory Group should be formed to help specify protocols and guide utilities and the Board through the data collection and pilot program phases.

Unfortunately staff has proposed to significantly deviate from the recommendations of the final CEC science advisory panel report and instead tie the outcome of bioassay tests, which are not sufficiently validated and standardized, to response actions that may have a direct impact on utilities. We strongly disagree with this approach.

The final CEC science advisory panel report defines standardization as providing confidence in the comparability of results. This is not the case with bioassay tests at this time. The final CEC report mentions there are four labs in the world currently conducting these tests – one outside of the United States. When our members contacted the laboratories, they gave a variety of answers on how the tests would be performed and requested a level of specificity regarding test parameters indicating a lack of method standardization. Effectively coordinating test details with the laboratories requires significant expertise in bioanalytical methods that is lacking outside of the research community at this time. This lack of standardization is likely

to result in widely different numeric outcomes and an associated lack of reproducibility across different laboratories and recycled water facilities.

While Board staff states that the bioassay testing is comparable to the CEC chemical testing, we again must strongly disagree. For the existing chemical tests for CECs there are at least four commercial and seven public agency labs in California that perform these tests, and the methods and standards for the tests have matured and are reproducible.

As we do not believe the bioassay tests are adequately standardized and reproducible at this time and there are considerable questions about how exceeding these thresholds might impact human health, we strongly disagree with tying the numeric outcomes to response actions.

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The proposed revision to the Policy states that the response actions include but are not limited to potentially performing "non-targeted analysis", which is again, not recommended by the science advisory panel. Other actions include an open-ended response action of "modification of facility operations." Costly studies and monitoring are included in the response actions. Another problem with including response actions for bioassays is that utilities will potentially have to explain to customers that certain thresholds have been exceeded and what that means for human health, despite the fact that this is not fully understood.

In summary, we urge the Board to revise the Policy to follow the recommendations of the science advisory panel. We also urge the Board to contact members of the science advisory panel to discuss the current status of standardization and validation of bioassay testing and the science advisory panel recommendations more broadly.

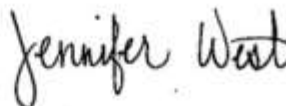
Conclusion

A Recycled Water Policy that facilitates water reuse in California is of critical importance to our future water supplies. We are fully committed to working with the Board and staff to develop a Policy that advances the goal of increasing the use of recycled water throughout California.

Sincerely,



Roberta Larson
Executive Director
California Association of Sanitation Agencies
(916) 446-0388



Jennifer West
Managing Director
WateReuse California
(916) 496-1470



Adam Borchard
Regulatory Advocate
Association of California Water Agencies
(916) 441-4545



Cindy Paulson, Ph.D.
Executive Director
California Urban Water Agencies
(925) 210-2477



Jonathan Young
Regulatory Advocate
California Municipal Utilities Association
(916) 326-5806

**MARKUP VERSION – DRAFT AMENDMENT TO THE RECYCLED WATER POLICY
5/9/2018**

Policy for Water Quality Control for Recycled Water

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<u>Acronym</u>	<u>Definition</u>
<u>afy</u>	<u>Acre feet per year</u>
<u>AhR</u>	<u>Aryl hydrocarbon receptor</u>
<u>AOP</u>	<u>Advanced oxidation process</u>
<u>Basin plan</u>	<u>Water quality control plan</u>
<u>BEQ</u>	<u>Bioanalytical equivalent concentration</u>
<u>CEC</u>	<u>Constituent of emerging concern</u>
<u>CEQA</u>	<u>California Environmental Quality Act</u>
<u>DOC</u>	<u>Dissolved organic carbon</u>
<u>ELAP</u>	<u>Environmental Laboratory Accreditation Program</u>
<u>ER-α</u>	<u>Estrogen receptor - alpha</u>
<u>MEC</u>	<u>Measured environmental concentration</u>
<u>MTL</u>	<u>Monitoring trigger level</u>
<u>NDMA</u>	<u>N-nitrosodimethylamine</u>
<u>NMOR</u>	<u>N-Nitrosomorpholine</u>
<u>Order WQ 2016-0068- DDW</u>	<u>Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use</u>
<u>Policy</u>	<u>Policy for Water Quality Control for Recycled Water</u>
<u>Regional water board</u>	<u>Regional water quality control board</u>
<u>RO</u>	<u>Reverse osmosis</u>
<u>State Water Board</u>	<u>State Water Resources Control Board</u>
<u>STORMS</u>	<u>Strategy to Optimize Resource Management of Stormwater</u>
<u>TNI</u>	<u>The National Environmental Laboratory Accreditation Conference Institute</u>
<u>Uniform Statewide Recycling Criteria</u>	<u>California Code of Regulations, title 22, division 4, chapter 3</u>
<u>U.S. EPA</u>	<u>U.S. Environmental Protection Agency</u>
<u>UV</u>	<u>Ultraviolet</u>
<u>Water Code</u>	<u>California Water Code</u>

MARKUP VERSION – DRAFT AMENDMENT TO THE RECYCLED WATER POLICY
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Definitions

The following are definitions of terms used in the Policy.

Bioanalytical equivalent concentration (BEQ): The output from bioanalytical screening tools are referenced to a substance that initiates a physiological response from the receptor (strong agonist) to generate BEQs. A BEQ is generated from a standard curve of a strong agonist for the receptor and is expressed in mass (ng/L) or molar concentration units. A BEQ is typically derived by comparing the 50th percentile effect concentration (EC50) or 10th percentile effect concentration (EC10) responses of the test sample with the same effect concentration (EC) level of the standard curve. The BEQ is compared to the Monitoring Trigger Level in water for the strong agonist for the receptor used to generate the BEQ.

Bioanalytical screening tools: *In vitro* (cell or protein-based) assays that can be used to screen for CECs and measure potential adverse effects of CECs on living cells or tissues.

Constituents of emerging concern (CECs): For purposes of this Policy, CECs are defined to be constituents in personal care products; pharmaceuticals; antimicrobials; industrial, agricultural, and household chemicals; naturally-occurring hormones; food additives; transformation products; inorganic constituents; microplastics; and nanomaterials.

Desalination facility: An industrial facility that processes water to remove salts and other components from the source water to produce water that is less saline than the source water.

Enclosed bays: Enclosed bays are indentations along the coast which enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Estuaries and coastal lagoons: Estuaries and coastal lagoons are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers

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Groundwater recharge: Indirect potable reuse for groundwater recharge is defined in Water Code section 13561(c), as the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Groundwater recharge by surface application is the controlled application of water to a spreading area for infiltration resulting in the recharge of a groundwater basin or an aquifer. Subsurface application is the controlled application of water to a groundwater basin or aquifer by a means other than surface application, such as direct injection through a well.

Health-based CECs: CECs that have toxicological relevance to human health. Some health-based CECs may also serve as performance indicator CECs.

Incidental runoff: Unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area. Water leaving a recycled water use area is not considered incidental if it is due to the facility design, excessive application, intentional overflow or application, or negligence.

Measured environmental concentration (MEC): Concentration measured at the monitoring locations specified in Attachment A.

Monitoring trigger level (MTL): CEC concentrations above which response actions may be required. MTLs were established by the Science Advisory Panel for CECs in Recycled Water in their final report "[Monitoring Strategies for Constituents of Emerging Concern \(CECs\) in Recycled Water – Recommendations of a Science Advisory Panel](#), dated April 2018.

Municipal wastewater treatment plant: A wastewater treatment plant that treats or reclaims raw sewage in whole or in part of municipal origin. Some municipal wastewater treatment plants may also be recycled water producers.

Non-potable recycled water: recycled water that is treated for non-potable use pursuant to the uniform statewide recycling criteria in California Code of Regulations, title 22. Non-potable recycled water uses include but are not limited to irrigation, industrial or commercial cooling, supply for recreational impoundment, toilet flushing, and dust control.

Notification level: Health-based advisory levels established by the State Water Board's Division of Drinking Water for chemicals in drinking water that lack maximum contaminant levels. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Ocean waters: The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons.

Performance indicator CECs: CECs that do not have human health relevance, but can be used to monitor the efficacy of recycled water treatment processes.

**MARKUP VERSION – DRAFT AMENDMENT TO THE RECYCLED WATER POLICY
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Permit: For purposes of this Policy, the term “permit” means an order adopted by a regional water board or the State Water Board prescribing requirements for a recycled water project, including but not limited to water recycling requirements pursuant to Water Code section 13523, master recycling permits pursuant to Water Code section 13523.1, National Pollutant Discharge Elimination System permits pursuant to the Federal Water Pollution Control Act and Water Code section 13377, waste discharge requirements pursuant to Water Code section 13263, and waivers of waste discharge requirements pursuant to Water Code section 13269.

Recycled water: Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource (Water Code §13050(n)).

Recycled water producer: An entity that is permitted to produce recycled water, which may then be used on- or off-site.

Recycled water project proponent: An entity seeking permit coverage for a planned recycled water project.

Regional water board: A regional water quality control board. All references to regional water board include the executive officer or his/her designee, who may act for the regional water board in carrying out the provisions of this Policy consistent with Water Code section 13223.

Reservoir water augmentation: The planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system or into a constructed system conveying water to such a reservoir (Wat. Code § 13561; also referred to as surface water augmentation in Wat. Code § 13562).

State Water Board: The State Water Resources Control Board. All references to the State Water Board include the executive director or his/her designee.

Surrogate: A measurable physical or chemical property that can be used to measure the effectiveness of trace organic compound removal by treatment process and/or provide an indication of a treatment process failure.

Water purveyor: An entity that supplies water.

MARKUP VERSION – DRAFT AMENDMENT TO THE RECYCLED WATER POLICY
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Preamble

~~California is facing an unprecedented water crisis.~~

~~The collapse of the Bay-Delta ecosystem, climate change, and continuing population growth have combined with a severe drought on the Colorado River and failing levees in the Delta to create a new reality that challenges California's ability to provide the clean water needed for a healthy environment, a healthy population and a healthy economy, both now and in the future.~~

~~These challenges also present an unparalleled opportunity for California to move aggressively towards a sustainable water future. The State Water Resources Control Board (State Water Board) declares that we will achieve our mission to "preserve, enhance and restore the quality of California's water resources to the benefit of present and future generations." To achieve that mission, we support and encourage every region in California to develop a salt/nutrient management plan by 2014 that is sustainable on a long term basis and that provides California with clean, abundant water. These plans shall be consistent with the Department of Water Resources' Bulletin 160, as appropriate, and shall be locally developed, locally controlled and recognize the variability of California's water supplies and the diversity of its waterways. We strongly encourage local and regional water agencies to move toward clean, abundant, local water for California by emphasizing appropriate water recycling, water conservation, and maintenance of supply infrastructure and the use of stormwater (including dry-weather urban runoff) in these plans; these sources of supply are drought-proof, reliable, and minimize our carbon footprint and can be sustained over the long-term.~~

~~We declare our independence from relying on the vagaries of annual precipitation and move towards sustainable management of surface waters and groundwater, together with enhanced water conservation, water reuse and the use of stormwater. To this end, we adopt the following goals for California:~~

- ~~➤ Increase the use of recycled water over 2002 levels by at least one million acre-feet per year (afy) by 2020 and by at least two million afy by 2030.~~
- ~~➤ Increase the use of stormwater over use in 2007 by at least 500,000 afy by 2020 and by at least one million afy by 2030.~~
- ~~➤ Increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020.~~
- ~~➤ Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.~~

MARKUP VERSION – DRAFT AMENDMENT TO THE RECYCLED WATER POLICY
5/9/2018

1. Purpose

1.1. The purpose of ~~theis~~ Policy for Water Quality Control for Recycled Water (Recycled Water Policy, hereafter Policy) is to encourage increase the safe use of recycled water from municipal wastewater sources that meets the definition in California Water Code (Water Code) section 13050(n), in a manner that implements state and federal water quality laws and protects public health and the environment. ~~The State Water Board expects to develop additional policies to encourage the use of stormwater, encourage water conservation, encourage the conjunctive use of surface and groundwater, and improve the use of local water supplies.~~

~~2. Purpose of the Policy~~

- 1.2 ~~a. The purpose of~~ This Policy ~~is to~~ provides direction to the regional water quality control boards (regional water boards), proponents of recycled water projects, and the public regarding the methodology and appropriate criteria to be used by for the State Water Board and the regional water boards to use when in-issuing permits for recycled water projects.
- 1.3 ~~b. It is the intent of the State Water Board that~~ All elements of this Policy are to be interpreted in a manner that fully implements state and federal water quality laws and regulations ~~in order~~ to enhance the environment and put the waters of the state to the fullest use of which they are capable.
- 1.4 ~~c. This Policy describes~~ the circumstances under which permittees may enroll under the statewide water reclamation requirements for recycled water use (e.g., State Water Board Order WQ 2016-0068-DDW) or choose an alternate permitting mechanism, such as a master recycling permit. For cases where use of statewide water reclamation requirements for recycled water use may not be appropriate, this Policy provides permitting criteria that are intended to streamline the permitting of aid in the vast majority antidegradation analysis of some recycled water projects. The intent of this streamlined permitting process is to expedite the implementation of recycled water projects in a manner that implements state and federal water quality laws while allowing the regional water boards to focus their limited resources on projects that require substantial regulatory review due to unique site-specific conditions.
- 1.5 ~~d. By prescribing permitting criteria that apply to the vast majority of recycled water projects,~~ It is the State Water Board's intent to promotemaximize consistency in the permitting of recycled water projects in California while also preserving to the Regional Water Boards sufficient authority and flexibility for the regional water boards to address site-specific conditions.
- ~~e. The State Water Board will establish additional policies that are intended to assist the State of California in meeting the goals established in the preamble to this Policy for water conservation and the use of stormwater.~~

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f. ~~For purposes of this Policy, the term "permit" means an order adopted by a Regional Water Board or the State Water Board prescribing requirements for a recycled water project, including but not limited to water recycling requirements, master reclamation permits, and waste discharge requirements.~~

3. Benefits of recycled water

2.1 When used in compliance with this Policy, California Code of Regulations, title 22 and all applicable state and federal water quality laws, the State Water Board finds that recycled water is safe for approved uses, and strongly supports recycled water as a safe alternative to potable water for such approved uses.

2.2 ~~The State Water Board finds that the use of Recycled water is presumed to have a beneficial impact when used in accordance with this Policy and all applicable regulations, that is, which when supporting the sustainable use of groundwater and/or surface water, which is sufficiently treated so as not to adversely impact public health or the environment and which ideally with the intent of substituting for use of potable water, is presumed to have a beneficial impact.~~ Other public agencies are encouraged to use this presumption in evaluating the impacts of recycled water projects on the environment as required by the California Environmental Quality Act (CEQA).

3. ~~Mandate for the Use of Recycled Water~~ Goals and reporting requirements to track recycled water

3.1. *Goals.* To encourage the increased use of recycled water in California, the State Water Board adopts the following goals:

3.1.1. Increase the use of recycled water from the use of 714,000 acre-feet per year (afy) to 1.5 million afy by 2020 and to 2.5 million afy by 2030.

3.1.2. Minimize the direct discharge of treated municipal wastewater to enclosed bays, estuaries and coastal lagoons, and ocean waters, except where necessary to maintain beneficial uses. For the purpose of this goal, treated municipal wastewater does not include brine discharges from recycled water facilities or desalination facilities.

3.2. *Reporting requirements.* The State Water Board will evaluate progress toward these goals and revise the goals or establish mandates as necessary. To support this evaluation, municipal wastewater treatment plants shall electronically report to the State Water Board the volume of influent, treated water produced, and treated water disposed, as specified in 3.2.1, unless otherwise directed by the Executive Director. Recycled water producers shall electronically report to the State Water Board the volume of treated water produced and disposed, as specified in 3.2.2.1 and 3.2.2.2, unless otherwise directed by the Executive Director. Recycled water producers and municipal wastewater treatment plants that are also recycled water producers shall report

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to the State Water Board the volume of recycled water use, as specified in 3.2.1.4 and 3.2.2.3, unless otherwise directed by the Executive Director. All volumetric data shall be reported as acre-feet per year (afy) to a database identified by the State Water Board. The Executive Director will issue an order to implement the requirements of this section.

3.2.1. Municipal wastewater treatment plants. This section includes reporting requirements for municipal wastewater treatment plants and for municipal wastewater treatment plants that are also recycled water producers. Municipal wastewater treatment plants shall report:

3.2.1.1. Influent. Volume of untreated wastewater or raw sewage entering a municipal wastewater treatment plant, on a monthly basis.

3.2.1.2. Production. Volume of municipal wastewater treated to each of the following standards, on a monthly basis:

- Undisinfected secondary, as defined in California Code of Regulations, title 22, §60301.900
- Disinfected secondary-23, as defined in California Code of Regulations, title 22, §60301.225
- Disinfected secondary-2.2, as defined in California Code of Regulations, title 22, §60301.220
- Disinfected tertiary, as defined in California Code of Regulations, title 22, §60301.230
- Full advanced treatment, as defined in California Code of Regulations, title 22, §60320.201.

3.2.1.3. Disposal. Volume of treated municipal wastewater discharged to each of the following, on a monthly basis:

- Inland surface waters, specifying volume required to maintain minimum instream flow
- Enclosed bays, estuaries and coastal lagoons, and ocean waters
- Underground injection wells, such as those classified by U.S. EPA's Underground Injection Control Program
- Land.

3.2.1.4. Reuse.

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- 3.2.1.4.1. Volume of treated municipal wastewater distributed to a recycled water producer for further treatment and use, at least on an annual basis.
- 3.2.1.4.2. Volume of treated municipal wastewater directly distributed for beneficial use in compliance with California Code of Regulations, title 22 in each of the use categories listed below, at least on an annual basis. This category excludes volume reported in 3.2.1.4.1.
- Agricultural irrigation: pasture or crop irrigation
 - Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; golf courses; cemeteries; residential landscaping, common areas; commercial landscaping, except eating areas; industrial landscaping, except eating areas; and freeway, highway, and street landscaping
 - Commercial and industrial application: dual-plumbed projects, business use (such as laundries and office buildings), manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered
 - Geothermal energy production: augmentation of geothermal fields
 - Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, recreational impoundments, etc.
 - Groundwater recharge: surface or subsurface application, except for seawater intrusion barrier use
 - Seawater intrusion barrier: groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface
 - Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in Section 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir (Water Code § 13561)
 - Raw water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in Section 116275 of the Health and Safety Code, or into a

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constructed system conveying water to such a reservoir (Water Code § 13561)

- Other potable uses: both indirect and direct potable reuse other than for groundwater recharge; seawater intrusion barrier, reservoir water augmentation, and raw water augmentation

3.2.2. Recycled water producers. This section includes reporting requirements for facilities that are solely recycled water producers (i.e., not also municipal wastewater treatment plants). Recycled water producers shall report:

3.2.2.1. Production. Volume of municipal wastewater treated to each of the standards described in 3.2.1.2, on a monthly basis.

3.2.2.2. Disposal. Volume of treated municipal wastewater not used for any direct beneficial use described in 3.2.2.3 below, including volume of treated municipal wastewater discharged to each of the following, on a monthly basis:

- Inland surface waters, specifying volume required to maintain minimum instream flow
- Enclosed bays, estuaries and coastal lagoons, and ocean waters
- Underground injection wells, such as those classified by U.S. EPA's Underground Injection Control Program
- Land.

3.2.2.3. Reuse. Volume of treated municipal wastewater directly distributed for beneficial use in compliance with California Code of Regulations, title 22 in the use categories described in 3.2.1.4.2, at least on an annual basis.

3.3. a. The State Water Board and regional water boards will exercise the authority granted to them by the Legislature to the fullest extent possible to encourage the use of recycled water, consistent with state and federal water quality laws and with state and federal laws to protect public health.

~~(1) The State Water Board hereby establishes a mandate to increase the use of recycled water in California by 200,000 afy by 2020 and by an additional 300,000 afy by 2030. These mandates shall be achieved through the cooperation and collaboration of the State Water Board, the Regional Water Boards, the environmental community, water purveyors and the operators of publicly owned treatment works. The State Water Board will evaluate progress toward these mandates biennially and review and revise as necessary the implementation provisions of this Policy in 2012 and 2016.~~

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3.3.1. ~~(2)~~ Agencies producing recycled water that is available for reuse and not being put to beneficial use shall make that recycled water available to water purveyors for reuse on reasonable terms and conditions. Such terms and conditions may include payment by the water purveyor of a fair and reasonable share of the cost of the recycled water supply and facilities.

3.3.2. ~~(3) The State Water Board hereby declares that, pursuant to Water Code sections 13550 et seq., it is a waste and unreasonable use of water for water agencies not to use recycled water when recycled water of adequate quality is available and is not being put to beneficial use, subject pursuant to the conditions established in Water Code sections 13550 et seq. The State Water Board shall exercise its authority pursuant to Water Code section 275 to the fullest extent possible, as appropriate, to enforce these requirements~~ the mandates of this subparagraph.

~~b. These mandates are contingent on the availability of sufficient capital funding for the construction of recycled water projects from private, local, state, and federal sources and assume that the Regional Water Boards will effectively implement regulatory streamlining in accordance with this Policy.~~

~~c. The water industry and the environmental community have agreed jointly to advocate for \$1 billion in state and federal funds over the next five years to fund projects needed to meet the goals and mandates for the use of recycled water established in this Policy.~~

3.4 ~~d.~~ The State Water Board requests the ~~California Department of Public Health (CDPH), the California Public Utilities Commission, (CPUC), and the California Department of Water Resources, (CDWR)~~ State Lands Commission, and Coastal Commission to use their respective authorities to the fullest extent possible practicable to assist the State Water Board and the regional water boards in increasing the use of recycled water in California to make progress toward achieving the recycled water goals set forth in 3.1.

4. 5. State agency roles ~~of the State Water Board, Regional Water Boards, CDPH and CDWR~~

The State Water Board recognizes that it shares jurisdiction over the use of recycled water with the regional water boards ~~and with CDPH~~. In addition, the State Water Board recognizes ~~that CDWR and the CPUC~~ several agencies have important roles to play in encouraging the use of recycled water. The State Water Board believes that it is important to clarify the respective roles of each of these agencies in connection with recycled water projects, as follows:

4.1 ~~a.~~ The State Water Board establishes general policies governing the permitting of recycled water projects, develops uniform water recycling criteria appropriate to particular uses of water, processes and approves wastewater change petitions filed by wastewater dischargers for recycled water projects that have the potential to decrease the flow in any portion of a watercourse such as a river or stream, adopts statewide orders for the permitting of recycled water

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- projects, reviews and approves Title 22 engineering reports for recycled water use, and allocates and disperses funding for recycled water projects consistent with its roles of protecting water quality, public health, and sustaining water supplies. The State Water Board exercises general oversight over recycled water projects, including review of regional water board permitting practices, and shall lead the effort to meet the recycled water use goals set forth in 3.1 the Preamble to this Policy. The State Water Board is also charged by statute with developing a general permit for irrigation uses of recycled water.
- 4.2 ~~b.~~ The CDPH is charged with protection of public health and drinking water supplies and with the development of uniform water recycling criteria appropriate to particular uses of water. Regional Water Boards shall appropriately rely on the expertise of CDPH for the establishment of permit conditions. The regional water boards issue permits that include requirements needed to protect water quality, human health, and the environment consistent with the State and regional Water Quality Control Plans.
- ~~c.~~ The Regional Water Boards are charged with protection of surface and groundwater resources and with the issuance of permits that implement CDPH recommendations, this Policy Policies, and applicable law, and The regional water boards will, pursuant to 3.3 paragraph 4 of this Policy, use their authority to the fullest extent possible to encourage the use of recycled water and to streamline permitting of recycled water projects.
- 4.3 ~~d.~~ CDWR The Department of Water Resources is charged with reviewing urban water management plans and, every five years, updating the California Water Plan, including evaluating the quantity of recycled water presently being used, and planning for the potential for future uses of recycled water, and updating statewide targets for recycled water use, consistent with Water Code section 10608.50(b). Pursuant to Water Code section 13577, the Department of Water Resources is also charged with adopting regulations in the California Plumbing Code to provide design standards to safely plumb buildings with both potable and recycled water systems. The State Water Board and Department of Water Resources work in collaboration to track recycled water volume and use in California. In undertaking these tasks, CDWR the Department of Water Resources may appropriately rely on annual recycled water production and use data collected by the State Water Board as well as urban water management plans, and The Department of Water Resources may share the data from those plans with the State Water Board and the regional water boards. CDWR The Department of Water Resources also shares with the State Water Board the authority to allocate and distribute bond funding, which can provide incentives for the use of recycled water.
- 4.4 ~~e.~~ The CPUC Public Utilities Commission is charged with approving rates and terms of service for the use of recycled water by investor-owned utilities.
- 4.5. The Department of Food and Agriculture is charged with promoting California agriculture and food products and ensuring the safety and quality of such

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products for the consumer, including products irrigated with recycled water. The State Water Board and Department of Food and Agriculture will work in collaboration to support agricultural diversity and sustainability by working with grower coalitions, third-party technical service providers, public and private agricultural entities, and academia.

5. Wastewater change petitions

In many cases, recycled water project proponents will be required to obtain approvals from several regulatory agencies prior to implementing their project. If the proposed recycled water project will result in reduced stream flows, an approved "wastewater change petition" may be required pursuant to Water Code section 1211 as described below. For this reason, the State Water Board encourages early coordination by the recycled water project proponent with the State Water Board's Division of Water Rights, Division of Financial Assistance, the regional water boards, Department of Water Resources, and Department of Fish and Wildlife in the process of funding and permitting recycled water projects to ensure compliance with Water Code section 1211.

- 5.1. The use of recycled water may only occur if all requirements prescribed by the State Water Board pursuant to Water Code section 1211 are being met. Prior to changing the point of discharge, place of use, or purpose of use of treated wastewater that could decrease the flow in any portion of a watercourse, or receiving state funding for the treatment or use of recycled water, the recycled water project proponent must receive (1) a determination from the State Water Board's Division of Water Rights that an order approving the change is not required; or (2) State Water Board approval for the proposed change pursuant to Water Code section 1211. The recycled water project proponent shall notify the applicable regional water board and any applicable state funding agency (such as the Division of Financial Assistance of the State Water Board or the Department of Water Resources) of this determination.
- 5.2. To approve a wastewater change petition, the State Water Board must determine that the proposed change will not injure any other legal user of the water involved, will not unreasonably affect instream uses including fish and wildlife, and is in the public interest. In addition, the State Water Board must find that the requirements of CEQA have been met. The State Water Board also has an independent obligation to consider the effect of the proposed change on public trust resources and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 [189 Cal. Rptr. 346, 658 P.2d 709].)
- 5.3. The State Water Board may consider potential cumulative impacts to the environment and public trust resources caused by the proposed recycled water project and related projects that may reduce stream flows. Although impacts caused by the incremental decrease in streamflow resulting from the approval of a single wastewater change petition may be insignificant, impacts to the environment may be cumulatively considerable when viewed together with

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impacts from past, present, and probable future projects with the potential to decrease the streamflow. This is particularly true for streams where discharges from wastewater treatment facilities comprise the majority of streamflow for a portion of the year, such as the dry summer months.

- 5.4. Approval of a wastewater change petition shall not be construed to release any recycled water project proponent from the obligation to comply with any regional water board requirements applicable to the recycled water project.

6. Salt/ and nutrient management plans

6.1 ~~a.~~ Introduction-

- 6.1.1 (4) Some groundwater basins in the state contain salts and nutrients that exceed or threaten to exceed water quality objectives established in the applicable regional water board water quality control plans (basin plans); and. Not all basin plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salts or nutrients. These conditions can be caused by ~~natural soils/conditions~~ naturally-occurring sources of salinity, discharges of waste agricultural, domestic, and municipal wastewater and residual solids (including on-site wastewater treatment systems). In addition, irrigation using imported water, surface water, groundwater, or recycled water, and indirect potable reuse for groundwater recharge (groundwater recharge) can contribute to increased salt and nutrient loading ~~and water supply augmentation using surface or recycled water~~. Regulation of recycled water alone may ~~will~~ not fully address these conditions.

- 6.1.2 (2) ~~It is the intent of this Policy that Salts and nutrients from all sources~~ must be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. ~~The State Water Board finds that the appropriate way to address~~ The most effective way to address salt and nutrient pollution issues is typically through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects or other individual sources of salts and nutrients.

~~b. Adoption of Salt/ Nutrient Management Plans.~~

- 6.1.3. Basin evaluation. To sustain the ongoing development of salt and nutrient management plans in basins where plans are needed and to clarify where salt and nutrient management planning is not needed, each regional water board shall evaluate each basin or subbasin in its region within two years of [effective date of the amendment] and identify basins where salts and/or nutrients are a threat to water quality and therefore need salt and nutrient management planning to achieve water quality objectives in the long term.

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Each regional water board shall update this evaluation at least every 10 years to consider any changes in these factors that have occurred that would change the findings from the initial evaluation. Basin evaluations completed prior to [effective date of the amendment] can be used to satisfy this requirement if the prior evaluation clearly identifies whether the basin requires salt and nutrient management planning to achieve water quality objectives in the long term. Regional water boards may consider the following factors in this determination, as well as any additional region-specific factors:

- Magnitude of and trends in the concentrations of salts and nutrients in groundwater
- Contribution of imported water and recycled water to the basin water supply
- Reliance on groundwater to supply the basin or subbasin
- Population
- Number and density of on-site wastewater treatment systems
- Other sources of salts and nutrients including irrigated agriculture and confined animal facilities

6.2. Development and adoption of salt and nutrient management plans.

~~(4)-The State Water Board recognizes that, pursuant to the letter dated December 19, 2008 and attached to the Resolution adopting this Policy, the~~ encourages collaborative work among salt and nutrient management planning groups, the agricultural community, the regional water boards, Integrated Regional Water Management groups, and groundwater sustainability agencies formed under the Sustainable Groundwater Management Act to achieve the goals of groundwater sustainability, recycled water use, and water quality protection. For basins identified in 6.1.3, the State Water Board encourages local water and wastewater entities, together with local salt/and nutrient contributing stakeholders, will fund to continue locally driven and controlled, collaborative processes open to all stakeholders that will prepare result in salt and nutrient management plans for each groundwater basins and the management of salts and nutrients on a basin-wide basis/sub-basin in California, including compliance with CEQA and participation by the regional water board-staff.

- 6.2.1.1. ~~(a) It is the intent of this Policy for Every groundwater basin/ and sub-basin identified pursuant to in California to 6.1.3 shall have a consistent-salt/ and nutrient management plan or plan that is~~

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~~functionally equivalent per 6.2.1.4. The degree of specificity within these plans and the length of these plans will be dependent on a variety of site-specific factors, including but not limited to size and complexity of a basin, source water quality, stormwater recharge, hydrogeology, and aquifer water quality.~~ (b) Salt and nutrient management plans shall be tailored to address the water quality concerns in each of the basin/ and sub-basin. Such plans shall include address and implementation measures provisions, as appropriate, for to address all sources of salt and/or nutrients to groundwater basins, including recycled water irrigation projects using recycled water for irrigation and groundwater recharge reuse projects. The salt and nutrient management plans may, depending upon the local situation, address constituents other than salts and nutrients that adversely affect groundwater quality.

6.2.1.2. ~~It is also the intent of~~ The State Water Board recognizes that because stormwater is typically lower in nutrients and salts and can augment local water supplies, inclusion of a significant stormwater use and recharge component within the salt/ and nutrient management plans ~~is critical to~~ can play a vital role in the long-term sustainable use of water in California. Inclusion of stormwater recharge is consistent with the California Water Plan and the State Water Board Strategy to Optimize Resource Management of Stormwater (STORMS) vision, as adopted in State Water Board Resolution No. 2016-0003, that stormwater be managed as a resource, wherein water quality improvement and water supply enhancement are complementary goals, Resolution No. 2005-0006, which establishes sustainability as a core value for State Water Board programs and also assists in implementing Resolution No. 2008-0030, which requires sustainable water resources management and is consistent with Objective 3.2 of the State Water Board Strategic Plan Update dated September 2, 2008.

~~(c) Such plans may be developed or funded pursuant to the provisions of Water Code sections 10750 of seq. or other appropriate authority.~~

~~(d) Salt and nutrient plans shall be completed and proposed to the Regional Water Board within five years from the date of this Policy unless a Regional Water Board finds that the stakeholders are making substantial progress towards completion of a plan. In no case shall the period for the completion of a plan exceed seven years.~~

6.2.1.3. ~~(e) The requirements of 6.2.4 this paragraph shall not apply to areas that have already completed a Regional Water Board approved are~~ covered by an existing salt and nutrient management plan that is accepted by the regional water board pursuant to 6.2.3.2 or any

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applicable basin plan amendment adopted by the regional water board pursuant to 6.2.3.3.

- 6.2.1.4. The regional water board may determine pursuant to 6.2.3 that a groundwater management plan for a basin, sub-basin, or other regional planning area is functionally equivalent to paragraph 6(b)3 a salt and nutrient management plan. For example, the regional water board may find that groundwater sustainability plans developed pursuant to the Sustainable Groundwater Management Act include water quality components that sufficiently address the components of 6.2.4 and therefore are functionally equivalent to a salt and nutrient management plan.

~~(2) Within one year of the receipt of a proposed salt and nutrient management plan, the Regional Water Boards shall consider for adoption revised implementation plans, consistent with Water Code section 13242, for those groundwater basins within their regions where water quality objectives for salts or nutrients are being, or are threatening to be, exceeded. The implementation plans shall be based on the salt and nutrient plans required by this Policy.~~

- 6.2.1.5. The regional water board may use its authority pursuant to Water Code section 13242 to adopt plans and programs of implementation for the protection of beneficial uses in basins whether or not a salt and nutrient management plan has been accepted by the regional water board pursuant to 6.2.3.2 or a basin plan amendment has been adopted by the regional water board pursuant to 6.2.3.3.

- 6.2.2. Implementation of salt and nutrient management plans may require a regional water board to amend its basin plan. The regional water board shall consider for adoption a basin plan amendment when implementation of a salt and nutrient management plan involves adoption and/or modification of water quality objectives, beneficial uses, or programs of implementation consistent with Water Code sections 13240, 13241, and 13242. In other cases where a regional water board determines a basin plan amendment is not required, the accepted salt and nutrient management plan serves as a technical document to support future regional water board decisions.

- 6.2.3. Regional water board review and acceptance of salt and nutrient management plans. Proposed salt and nutrient management plans shall be submitted to the regional water board for review. The regional water board shall evaluate the salt and nutrient management plan in accordance with the provisions of 6.2.4. Following review, the regional water board shall make one of the following determinations through a resolution. This determination shall be made within six months of receipt of a proposed salt and nutrient management plan, unless compliance with CEQA is required.

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- 6.2.3.1. The proposed salt and nutrient management plan does not fully satisfy the requirements of 6.2.4. In this case, the regional water board shall provide specific findings regarding which components in 6.2.4 are not adequately addressed and recommendations for what may need to be included or modified in the proposed salt and nutrient management plan for the regional water board to accept the plan.
- 6.2.3.2. The proposed salt and nutrient management plan fully satisfies the requirements of 6.2.4, a basin plan amendment is not needed to implement the plan, and the regional water board will accept the plan. In this case, the accepted salt and nutrient management plan will serve as a technical document to support regional water board decisions.
- 6.2.3.3. The proposed salt and nutrient management plan fully satisfies the requirements of 6.2.4 and a basin plan amendment will be needed to implement the plan. In this case, the regional water board shall initiate a process to amend the basin plan based on the accepted salt and nutrient management plan.
- 6.2.4. Required components of salt and nutrient management plans. The degree of specificity within salt and nutrient management plans and the length of the plans will be dependent on a variety of site-specific factors, including but not limited to, size and complexity of a basin, source water quality, stormwater recharge, hydrogeology, and aquifer water quality. Each salt and nutrient management plan shall include the following components:
- 6.2.4.1. (a) A basin/ or sub-basin-wide monitoring plan that includes an appropriate network of monitoring locations. ~~The scale of the basin/sub-basin monitoring plan is dependent upon the site-specific conditions and shall be adequate to provide a reasonable, cost-effective means of determining whether the concentrations of salts, nutrients, and other constituents of concern as identified in the salt and nutrient management plans are consistent with applicable water quality objectives. The number, type, and density of monitoring locations to be sampled and other aspects of the monitoring program shall be dependent upon basin-specific conditions and input from the regional water board.~~ Salts, nutrients, and the constituents identified in 6.2.1.1 paragraph 6(b)(1)(f) shall be monitored. The frequency of monitoring shall be determined proposed in the salt/ and nutrient management plan and approved for review by the regional water board pursuant to 6.2.3 paragraph 6(b)(2).
- 6.2.4.1.1. (i) The monitoring plan must be designed to ~~determine~~ effectively evaluate water quality in the basin. The plan must focus on basin water quality near water supply wells and areas

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proximate to large water recycling projects, particularly groundwater recharge projects. Also, monitoring locations shall, where appropriate, target groundwater and surface waters where groundwater has connectivity with adjacent surface waters.

6.2.4.1.2. ~~(ii)~~ The preferred approach to monitoring plan development is to ~~collect samples~~ may include water quality data from existing wells if ~~feasible as long as~~ where the existing wells are located and screened appropriately to determine water quality throughout the most critical areas of the basin. The State Water Board supports monitoring approaches that leverage the use of groundwater monitoring wells from other regulatory programs, such as the Irrigated Lands Regulatory Program and the Sustainable Groundwater Management Act.

6.2.4.1.3. ~~(iii)~~ The monitoring plan shall identify those stakeholders responsible for conducting, compiling, and reporting the monitoring data. The data shall be electronically reported annually to a database in a format identified by the Regional State Water Board (e.g., GeoTracker) at least every three years.

~~(b) A provision for annual monitoring of Constituents of Emerging Concern (e.g., endocrine disruptors, personal care products or pharmaceuticals) (CECs) consistent with recommendations by CDPH and consistent with any actions by the State Water Board taken pursuant to paragraph 10(b) of this Policy.~~

6.2.4.2. ~~(c)~~ Water recycling and stormwater recharge/use goals and objectives.

6.2.4.3. ~~(d)~~ Salt and nutrient source identification, basin/ or sub-basin assimilative capacity and loading estimates, together with fate and transport of salts and nutrients.

6.2.4.4. ~~(e)~~ Implementation measures to manage or reduce the salt and nutrient loading in the basin on a sustainable basis and the intended outcome of each measure.

6.2.4.5. ~~(f)~~ An antidegradation analysis demonstrating that the existing projects, reasonably foreseeable future projects, and other sources of loading to the basin included within the plan will, cumulatively/collectively, satisfy the requirements of State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California (Antidegradation Policy).

6.2.5. (4) Nothing in this Policy shall prevent stakeholders from developing a plan that is more protective of water quality than applicable standards in the

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basin plan. No regional water board, however, shall seek to modify basin plan objectives without full compliance with Water Code section 13241 ~~the process for such modification as established by existing law.~~

6.2.6. Data assessment. The regional water boards, in consultation with stakeholders, shall assess and review monitoring data generated from these plans approximately every 5 years but no more than every 10 years, unless an alternate timeline has been established in a basin plan amendment adopted by the regional water board pursuant to 6.2.3.3. This assessment shall include an evaluation of:

- observed trends in water quality data as compared with trends predicted in the salt and nutrient management plan;
- the ability of the monitoring network to adequately characterize groundwater quality in the basin;
- potential new data gaps;
- groundwater quality impacts predicted in the salt and nutrient management plan based on most recent trends and any relied-upon models, including an evaluation of the ability of the model to simulate groundwater quality; and
- available assimilative capacity based on observed trends and most recent water quality data.

6.2.7. The regional water boards, in consultation with stakeholders, shall use the results of these periodic assessments to update basin evaluations of available assimilative capacity, projected trends, and concentrations of salts and nutrients in groundwater, and assess whether potential updates or revisions to the salt and nutrient management plan may be warranted.

7. Permitting and antidegradation analysis for non-potable recycled water projects

The purpose of this section is to describe permitting options and associated antidegradation analysis for non-potable recycled water projects seeking or proposing to revise a permit. Recycled water project proponents must also comply with related statutes and regulations, such as those contained in Water Code sections 13263, 13267, 13377, 13523, 13523.1, and California Code of Regulations, title 17 and title 22.

7.1. Antidegradation analysis for non-potable recycled water projects

7.1.1. Landscape Irrigation and other non-potable uses of with recycled water in accordance with this Policy is to the benefit of the people of the State of California. Nonetheless, ~~the State Water Board finds that~~ the use of water

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for irrigation may, regardless of its source, ~~collectively~~ affect groundwater quality over time. The State Water Board intends to address these impacts in part through the development of salt/nutrient management plans described in paragraph 6.

- 7.1.2. For non-potable recycled water project proponents within a basin for which the regional water board has adopted a basin plan amendment based on an accepted salt and nutrient management plan pursuant to 6.2.3.3, compliance with the Antidegradation Policy may consist of an analysis demonstrating that the project is consistent with the adopted basin plan amendment. For non-potable recycled water project proponents within a basin with an accepted salt and nutrient management plan without an associated basin plan amendment, the antidegradation analysis may be based, in part, on the technical findings of the accepted salt and nutrient management plan as described in 6.2.2. For non-potable recycled water project proponents within a basin where a salt and nutrient management plan has not been accepted by the regional water board, compliance with the Antidegradation Policy will depend on the permitting mechanism selected by the regional water board as described in 7.2. and 7.3 below. If the proposed project is in a basin identified pursuant to 6 as needing a salt and nutrient management plan and if directed by a regional water board pursuant to Water Code section 13267, the recycled water project proponent may be required to develop or participate in developing a salt and nutrient management plan.

7.2. Use of statewide water reclamation requirements

The State Water Board adopted statewide water reclamation requirements (e.g., Order WQ 2016-0068-DDW) to streamline permitting of recycled water projects where recycled water is used for non-potable uses.

- 7.2.1. To achieve the goals of statewide consistency, streamlined permitting, and efficiency of resource management, all appropriate and eligible projects with the capability of taking on the responsibility of administrating water recycling programs shall enroll under statewide water reclamation requirements.
- 7.2.2. Antidegradation analysis. Recycled water project proponents seeking to enroll under statewide water reclamation requirements can demonstrate compliance with the Antidegradation Policy by demonstrating that the project complies with the conditions of the order, which includes compliance with an accepted salt and nutrient management plan or participation in an existing salt and nutrient management planning effort, if directed by the State Water Board or applicable regional water board.

7.3. Site-specific permitting for non-potable recycled water projects

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7.3.1. If a project is not appropriate or eligible to enroll under statewide water reclamation requirements, the regional water board shall consider a new site-specific order for adoption or consider the project for enrollment under an existing order (e.g., a master recycling permit), pursuant to 7.3.2 or 7.3.3.

7. Landscape Irrigation Projects⁴

~~a. Control of incidental runoff. Incidental runoff is defined as unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over spray from sprinklers that escapes the recycled water use area. Water leaving a recycled water use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Incidental runoff may be regulated by waste discharge requirements or, where necessary, waste discharge requirements that serve as a National Pollutant Discharge Elimination System (NPDES) permit, including municipal separate storm water system permits, but regardless of the regulatory instrument, the project shall include, but is not limited to, the following practices:~~

- ~~(1) Implementation of an operations and management plan that may apply to multiple sites and provides for detection of leaks, (for example, from broken sprinkler heads), and correction either within 72 hours of learning of the runoff, or prior to the release of 1,000 gallons, whichever occurs first;~~
- ~~(2) Proper design and aim of sprinkler heads;~~
- ~~(3) Refraining from application during precipitation events, and~~
- ~~(4) Management of any ponds containing recycled water such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater, and there is notification of the appropriate Regional Water Board Executive Officer of the discharge.~~

7.3.2. ~~b. Criteria for streamlined permitting.~~

7.3.2.1. (c) This section provides permitting criteria that, if met, can aid in compliance with the Antidegradation Policy for some recycled water

⁴ Specified uses of recycled water considered "landscape irrigation" projects include any of the following:

- ~~i. Parks, greenbelts, and playgrounds;~~
- ~~ii. School yards;~~
- ~~iii. Athletic fields;~~
- ~~iv. Golf courses;~~
- ~~v. Cemeteries;~~
- ~~vi. Residential landscaping, common areas;~~
- ~~vii. Commercial landscaping, except eating areas;~~
- ~~viii. Industrial landscaping, except eating areas; and~~
- ~~ix. Freeway, highway, and street landscaping.~~

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projects. This section applies to non-potable recycled water projects where the proposed use of recycled water or method of recycled water storage would not cause or contribute to pollution or nuisance, or otherwise fail to comply with the applicable basin plan or State Water Board plans or policies. Non-potable recycled water projects
~~irrigation projects using recycled water~~ that meet all of the following criteria are eligible for streamlined permitting, ~~and if otherwise in compliance with applicable laws,~~ shall be approved consistent with the requirements of 7.3.2.2:

- 7.3.2.1.1. ~~(1) Compliance with the requirements for recycled water established in Title 22 of the California Code of Regulations, including the requirements for treatment and use area restrictions, together with any other recommendations by CDPH, all applicable laws and regulations, including those related to recycled water contained in California Code of Regulations, title 17 and California Code of Regulations, title 22 (including subsequent revisions), and recommendations by the State Water Board for the protection of public health pursuant to Water Code section 13523.~~
- 7.3.2.1.2. Compliance with an approved Title 22 engineering report that demonstrates or defines compliance with the Uniform Statewide Recycling Criteria (and amendments).
- 7.3.2.1.3. ~~(2) Application in amounts and at rates as needed for the landscape (i.e., at agronomic rates and not when the soil is saturated). Each irrigation project shall be subject to an operations and management plan, that may apply to multiple sites, provided to the Regional Water Board that specifies the agronomic rate(s) and describes a set of reasonably practicable measures to ensure compliance with this requirement, which may include the development of water budgets for use areas, site supervisor training, periodic inspections, tiered rate structures, the use of smart controllers, or other appropriate measures. For irrigation projects, application of recycled water at rates that minimize percolation of recycled water below the plants' root zone, i.e., in a manner (1) necessary to satisfy the plants' evapotranspiration requirements, (2) that considers allowances for supplemental water, irrigation distribution uniformity, leaching, and climate, and (3) when the soil is not saturated. The regional water board may require a recycled water project proponent to submit an operations and management plan, which may apply to multiple sites. The operations and management plan shall include the rate(s) of application of recycled water and describe a set of reasonably practicable measures to ensure compliance with this paragraph.~~

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- 7.3.2.1.4. ~~(3)~~ Compliance with any applicable salt and nutrient management plan accepted by the regional water board pursuant to 6.2.3.2 or any applicable basin plan amendment adopted by the regional water board pursuant to 6.2.3.3.
- 7.3.2.1.5. (4) Appropriate use of fertilizers that takes into account the nutrient levels in the recycled water and nutrient demand by plants. Recycled water producers shall monitor and communicate to the users the nutrient levels in their recycled water.
- 7.3.2.1.6. Compliance with Water Code section 1211 for facilities where the changes to the discharge are necessary to accomplish water recycling and will result in changes in flow in a watercourse.
- 7.3.2.1.7. Compliance with all requirements of applicable waste discharge requirements, waivers of waste discharge requirements, including, without limitation, waste discharge requirements or waivers regulating agricultural discharges from irrigated lands.
- 7.3.2.2. For recycled water projects that meet the streamlined criteria in 7.3.2.1 and where the recycled water project proponent and regional water board select a permitting option other than statewide water reclamation requirements (e.g., master recycling permit):
- 7.3.2.2.1. (4) The regional water boards shall, absent unusual circumstances (~~i.e. g., unique,~~ site-specific conditions such as where recycled water is proposed to be used for irrigation over high transmissivity soils over a shallow (5' or less) high quality groundwater aquifer, or proposed to be stored in unlined ponds where the regional water board determines that it will result in an unacceptable threat to groundwater quality), approve permit recycled water projects ~~that meet the criteria set forth in this Policy, consistent with a site-specific permit~~ the provisions of this paragraph.
- 7.3.2.2.2. (2) ~~If~~ The regional water board ~~determines that unusual circumstances apply, the Regional Water Board shall make a finding of unusual circumstances in a site-specific permit pursuant to 7.3.3, resolution or other order based on substantial evidence in the record if the regional water board determines that unusual circumstances apply, after public notice and hearing.~~
- ~~(3) Projects meeting the criteria set forth below and eligible for enrollment under requirements established in a general order~~

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~~shall be enrolled by the State or Regional Water Board within 60 days from the date on which an application is deemed complete by the State or Regional Water Board. For projects that are not enrolled in a general order, the Regional Water Board shall consider permit adoption within 120 days from the date on which the application is deemed complete by the Regional Water Board.~~

- 7.3.2.2.3. ~~(4) Landscape irrigation projects that qualify for streamlined permitting. The regional water board shall not be required to include a project-specific receiving water and groundwater monitoring component if the recycled water project meets the criteria set forth in 7.3.2.1, unless such project-specific monitoring is required under the adopted/accepted salt/ and nutrient management plan or applicable basin plan. During the interim while the salt management plan is under development, a landscape irrigation project proponent can either perform project specific monitoring, or actively participate in the development and implementation of a salt/nutrient management plan, including basin/sub-basin monitoring. Permits or requirements for landscape irrigation projects shall include, in addition to any other appropriate recycled water monitoring requirements, monitoring for priority pollutants in the recycled water at the recycled water production facility once per year, except when the recycled water production facility has a design production flow for the entire water reuse system of one million gallons per day or less. For these smaller facilities, the recycled water shall be monitored for priority pollutants once every five years.~~
- ~~(5) It is the intent of the State Water Board that the general permit for landscape irrigation projects be consistent with the terms of this Policy.~~

- 7.3.2.2.4. The regional water board may require submittal of a site-specific Implementation Plan or Operations and Management Plan as a condition of the permit if the recycled water project meets the criteria set forth in 7.3.2.1.

- 7.3.2.2.5. Antidegradation analysis. Non-potable recycled water project proponents can satisfy the requirements of the Antidegradation Policy by submitting an analysis demonstrating that the project is consistent with the criteria specified in 7.3.2.1 to the regional water board with the report of waste discharge, which includes compliance with any applicable salt and nutrient management plan accepted by the regional water board pursuant to 6.2.3.2 or

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any applicable basin plan amendment adopted by the regional water board pursuant to 6.2.3.3.

7.3.3. Permitting for non-potable recycled water projects that do not meet the requirements of 7.3.2.1

7.3.3.1. Projects that are ineligible or inappropriate for enrollment under statewide water reclamation requirements and that do not meet the criteria of 7.3.2.1 must be reviewed and permitted on a site-specific basis.

7.3.3.2. Antidegradation analysis. Non-potable recycled water project proponents ineligible or inappropriate for enrollment under statewide water reclamation requirements and that do not meet the criteria specified in 7.3.2.1 must submit an antidegradation analysis to the regional water board with the report of waste discharge to demonstrate compliance with the Antidegradation Policy.

7.4. Incidental runoff of recycled water for irrigation

Recycled water shall not be allowed to escape from the use area as surface flow that would either pond or enter surface waters, unless authorized by waste discharge requirements, waivers of waste discharge requirements, or conditional prohibitions (e.g., agricultural discharges from irrigated lands).

8. Permitting and antidegradation analysis for Recycled Water groundwater recharge projects

8.1. Permitting for groundwater recharge projects

8.1.1. ~~(a) The State Water Board acknowledges that All recycled water groundwater recharge projects must be reviewed and permitted on a site-specific basis, and so such projects will require project by project review.~~

8.1.2. ~~(b) Approved groundwater recharge projects will~~shall meet the following criteria:

8.1.2.1. ~~(4) Compliance with regulations adopted by CDPH related to recycled water for groundwater recharge projects (including subsequent revisions) contained or, in California Code of Regulations, title 17 and California Code of Regulations, title 22, and the interim until such regulations are approved, CDPH's recommendations by the State Water Board for the protection of public health pursuant to Water Code section 13523 for the project (e.g., level of treatment, retention time, setback distance, source control, monitoring program, etc-).~~

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- 8.1.2.2. ~~(2)~~ Implementation of a monitoring program for constituents of emerging concern (CECs) that is consistent with Attachment A and any recommendations from the State Water Board ~~CDPH~~. ~~Groundwater recharge projects shall include monitoring of recycled water for priority pollutants twice per year.~~
- 8.1.2.3. ~~(c)~~ Nothing in this ~~section~~ paragraph shall be construed to limit the authority of a regional water board to protect designated beneficial uses, provided that any proposed limitations for the protection of public health may only be imposed following regular consultation by the regional water board with the State Water Board ~~CDPH~~, consistent with the precedent established in State Water Board Orders WQ 2005-0007 and 2006-0001.
- 8.1.2.4. ~~(d)~~ Nothing in this Policy shall be construed to prevent a Regional Water Board from imposing additional requirements for a proposed recharge project that has a substantial adverse effect on the fate and transport of a contaminant plume or changes the geochemistry of an aquifer thereby causing the dissolution of constituents, such as arsenic, from the geologic formation into groundwater.
- 8.1.2.5. ~~(e)~~ Projects that utilize surface spreading to recharge groundwater with recycled water treated by reverse osmosis shall be permitted by a regional water board within one year of receipt of an approved Title 22 engineering report, provided that the project proposes a brine disposal method to the satisfaction of the regional water board ~~recommendations from CDPH~~. Furthermore, the regional water board shall give a high priority to review and approval of such projects.

8.2. Antidegradation analysis for groundwater recharge projects

- ~~(a) The State Water Board adopted Resolution No. 68-16 as a policy statement to implement the Legislature's intent that waters of the state shall be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the state.~~
- ~~(b) Activities involving the disposal of waste that could impact high quality waters are required to implement best practicable treatment or control of the discharge necessary to ensure that pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.~~
- 8.2.1. ~~(c)~~ Groundwater recharge with recycled water for later extraction and use in accordance with this Policy and state and federal water quality law is to the benefit of the people of the state of California. Nonetheless, ~~the State Water Board finds that~~ groundwater recharge projects using recycled

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water have the potential to ~~degrade~~ lower water quality within a basin. ~~To ensure a project does not degrade water quality within a basin, the~~ proponent of a groundwater recharge project must submit and antidegradation analysis to the regional water board with the report of waste discharge to demonstrate compliance with the Antidegradation Policy, Resolution No. 68-16. Until such time as a salt/nutrient management plan is in effect, such compliance may be demonstrated as follows:

- 8.2.2. For groundwater recharge projects within a basin for which the regional water board has adopted a basin plan amendment based on an accepted salt and nutrient management plan pursuant to 6.2.3.3, compliance with the Antidegradation Policy may consist of conducting an analysis demonstrating that the project is consistent with the adopted basin plan amendment.
- 8.2.3. For groundwater recharge projects within a basin with a salt and nutrient management plan accepted by the regional water board pursuant to 6.2.3.2 (i.e., without an associated basin plan amendment), the antidegradation analysis may be based, in part, on the technical findings of the accepted salt and nutrient management plan as described in 6.2.2.
- 8.2.4. If a groundwater recharge project proponent is actively participating in the development of a salt and nutrient management plan for the basin or subbasin to the satisfaction of the applicable regional water board, then compliance with the Antidegradation Policy may be demonstrated as follows:
- 8.2.4.1. (1) If a groundwater recharge project proposes to that utilizes less than 10 percent of the available assimilative capacity in a basin/ or sub-basin (or multiple projects to utilize less than 20 percent of the available assimilative capacity in a basin/ or sub-basin) the antidegradation analysis need only conduct an antidegradation analysis verifying the demonstrate that the project will use of the less than 10 percent (or multiple projects will use less than 20 percent) of the available assimilative capacity. For those basins/ or sub-basins where the regional water boards have not determined the baseline assimilative capacity, the baseline assimilative capacity shall be calculated by the initial project proponent, with review and approval by the regional water board, until such time as the salt/ and nutrient management plan is approved-accepted by the regional water board consistent with 6.2 and is in effect. For compliance with this subparagraph, the available assimilative capacity shall be calculated by comparing the mineral water quality objective with the average concentration of the basin/ or sub-basin, either over the most recent five years of data available or using a data set approved by the regional water board-Executive Officer. In determining whether the available assimilative capacity will be exceeded by the project or

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projects, the regional water board shall calculate the impacts of the project or projects over at least a ten-year time frame.

8.2.4.2. ~~(2)~~In the event a project or multiple projects utilize more than the fraction of the assimilative capacity designated in 8.2.4.1 subparagraph (1), then a ~~Regional Water Board deemed acceptable~~ more detailed antidegradation analysis shall be performed to comply with the Antidegradation Policy Resolution No. 68-16. The project proponent shall provide sufficient information for the regional water board to make this determination. An example of an approved method is the method used ~~by the in State Water Board in connection with Resolution No. 2004-0060 and their California Regional Water Quality Control Board, Santa Ana Region in connection with Resolution No. R8-2004-0001.~~ An integrated approach (using surface water, groundwater, recycled water, stormwater, pollution prevention, water conservation, etc.) to the implementation of the Antidegradation Policy Resolution No. 68-16 is encouraged.

8.2.5. For groundwater recharge projects within a basin without a salt and nutrient management plan accepted by the regional water board pursuant to 6.2.3.2 or any applicable basin plan amendment adopted by the regional water board pursuant to 6.2.3.3, a more detailed antidegradation analysis shall be performed to comply with the Antidegradation Policy. The project proponent shall provide sufficient information for the regional water board to make this determination. An example of an approved method is the method used in State Water Board Resolution No. 2004-0060 and the regional water board in California Regional Water Quality Control Board, Santa Ana Region Resolution No. R8-2004-0001. An integrated approach (using surface water, groundwater, recycled water, stormwater, pollution prevention, water conservation, etc.) to the implementation of the Antidegradation Policy is encouraged.

~~(1) A project that meets the criteria for a streamlined irrigation permit and is within a basin where a salt/nutrient management plan satisfying the provisions of paragraph 6(b) is in place may be approved without further antidegradation analysis, provided that the project is consistent with that plan.~~

~~(2) A project that meets the criteria for a streamlined irrigation permit and is within a basin where a salt/nutrient management plan satisfying the provisions of paragraph 6(b) is being prepared may be approved by the Regional Water Board by demonstrating through a salt/nutrient mass balance or similar analysis that the project uses less than 10 percent of the available assimilative capacity as estimated by the project proponent in a basin/sub-basin (or multiple projects using less than 20 percent of the available assimilative capacity as estimated by the project proponent in a basin/sub-basin).~~

9. Permitting for reservoir water augmentation

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- 9.1. All recycled water reservoir water augmentation projects must be reviewed and permitted on a site-specific basis.
- 9.2. Approved reservoir water augmentation projects shall meet the following criteria:
- 9.2.1. Compliance with regulations adopted by the State Water Board for reservoir water augmentation projects; and
- 9.2.2. Implementation of a monitoring program for CECs that is consistent with Attachment A and recommendations by the State Water Board for the protection of public health pursuant to Water Code section 13523.
- 9.3. Nothing in this section shall be construed to limit the authority of a regional water board to protect designated beneficial uses, provided that any proposed limitations for the protection of public health may only be imposed following regular consultation by the regional water board with the State Water Board, consistent with the precedent established in State Water Board Orders WQ 2005-0007 and WQ 2006-0001.

10. Constituents of emerging concern

a. General Provisions

~~(1) Regulatory requirements for recycled water shall be based on the best available peer-reviewed science. In addition, all uses of recycled water must meet conditions set by CDPH.~~

~~(2) Knowledge of risks will change over time and recycled water projects must meet legally applicable criteria. However, when standards change, projects should be allowed time to comply through a compliance schedule.~~

10.1. Introduction

10.1.1. ~~(3) The presence, variety, and concentration of CECs in water may vary over time. In addition, (3) the state of knowledge regarding CECs is inherently incomplete and will change over time based on scientific developments. Continuing There needs to be additional research is needed to support understanding of which CECs present a risk to public health and the environment, and development of analytical methods and surrogates to determine potential environmental and public health impacts.~~

10.1.2. Agencies should employ source control and/or pollution prevention programs to minimize the likelihood of CECs impacting human health and the environment by means of source control and/or pollution prevention programs.

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~~(4) Regulating most CECs will require significant work to develop test methods and more specific determinations as to how and at what level CECs impact public health or our environment.~~

10.1.3. Additional research to improve analytical methods and screening tools, increase the availability of toxicological studies, and improve our understanding of prevalence and persistence of CECs in water will assist in the State Water Board in identifying CECs with the greatest potential to be of toxicological relevance to human health and the environment.

10.2. ~~b~~ *Research Program*

10.2.1. ~~(1) The State Water Board, in consultation with CDPH, shall convened a "blue ribbon" Science Advisory Panel every five years to guide future actions relating to CECs.~~

10.2.2. ~~(a) The Panel was actively managed by the State Water Board and was shall be composed of members representing the following areas of expertise: one human health toxicologist, one environmental toxicologist, one epidemiologist, one biochemistry, one civil engineering (particularly familiar with the design and construction of recycled water treatment facilities), and one analytical chemistry (particularly familiar with the design and operation of advanced laboratory methods for the detection of CECs emerging constituents), and human health pathology (particularly expertise on antibiotic resistant bacteria and antibiotic resistance genes). Each of these panelists shall had have extensive experience as a principal investigator in their respective areas of expertise.~~

10.2.3. ~~(b) The panel will reviewed the scientific literature and submitted a report to the State Water Board and CDPH that describes the current state of scientific knowledge regarding the risks of CECs to public health and the environment. In December 2010, the State Water Board, in coordination with CDPH, held a public hearing to hear a presentation on the report and to receive comments from stakeholders.~~

~~(c) The State Water Board considered the panel report and the comments received and adopted an amendment to the Policy establishing monitoring requirements for CECs in recycled water. These monitoring requirements are prescribed in Attachment A.~~

~~(2) The panel or a similarly constituted panel shall update the report every five years. The next update is due in June 2015.~~

10.2.4. (a) Each updated report shall recommend actions that the State of California should take to improve our understanding of CECs and, as may be appropriate, to protect public human health and the environment.

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- 10.2.5. ~~(b)~~ ~~The updated~~ Each reports shall ~~answer~~ at minimum address the following ~~question~~ topics:
- 10.2.5.1. ~~What are~~ The appropriate constituents to be monitored in recycled water, including analytical methods and ~~method~~ detection reporting limits?
- 10.2.5.2. ~~What is~~ The known toxicological information for the above constituents and persistence through treatment systems?
- 10.2.5.3. ~~Would~~ Any change to the above constituents lists change based on level of treatment and uses specified in Title 22 and for reservoir augmentation? If so, how?
- 10.2.5.4. ~~What are possible~~ The indicators or surrogates that can be used to represent a suite of CECs?
- 10.2.5.5. ~~What levels of CEC's~~ The concentrations of CECs that should trigger enhanced monitoring of CEC's in recycled water, groundwater and/or surface waters?
- 10.2.5.6. Recommendations regarding antibiotic resistant bacteria and antibiotic resistance genes.
- 10.2.6. ~~(c)~~ ~~Within six months from receipt of an updated~~ report, the State Water Board shall hold a hearing to consider recommendations from staff and shall endorse the recommendations, as appropriate, after making any necessary modifications.

11. Maximizing consistency in permitting recycled water projects

11.1. CEC permit provisions

Permits for recycled water projects shall be consistent with any applicable ~~CDPH recommendations to protect public health and the~~ monitoring requirements prescribed in Attachment A.

11.2. Regional water board general orders

To ensure consistent regulation of recycled water statewide, coverage under existing regional water board general orders for non-potable uses of recycled water will terminate on [one year from the effective date of this Policy] and, except for enforcement purposes, these orders will have no further force and effect. Regional water boards shall, where appropriate, transition enrollees from these orders to Order WQ 2016-0068-DDW or its successor before [one year from the effective date of this Policy].

11.3. Permit review

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By [three years from the effective date of this Policy].

- 11.3.1. The State Water Board shall review Title 22 engineering reports for recycled water permits issued prior to 2000 for consistency with all applicable regulations, including those related to recycled water contained in California Code of Regulations, title 17 and California Code of Regulations, title 22. If the Title 22 engineering report was never prepared or is inconsistent with applicable regulations, the State Water Board may require a new or updated Title 22 engineering report to be submitted for review and approval.
- 11.3.2. Regional water boards shall review all recycled water permits and shall identify any recycled water permits that are (1) inconsistent with this Policy, (2) inconsistent with an approved Title 22 engineering report pursuant to 11.3.1 or (3) inconsistent with the applicable regional water board basin plan.
- 11.3.3. Regional water boards shall update any permits and/or monitoring and reporting programs as identified in 11.3.2 and, if appropriate, enroll permittees in Order WQ 2016-0068-DDW or its successor.
- 11.3.4. The regional water boards shall prioritize updating orders, permits and/or monitoring and reporting programs that were issued prior to January 1, 2000 or are located in basins identified pursuant to 6.
- 11.3.5. Timelines consistent with a prioritized approach identified in a basin plan amendment based on an accepted salt and nutrient management plan pursuant to 6.2.3.3 will supersede the three-year timeline identified above.

~~11. Incentives for the Use of Recycled Water~~

~~a. Funding~~

~~The State Water Board will request CDWR to provide priority funding for projects that have major recycling components; particularly those that decrease demand on potable water supplies. The State Water Board will also request priority funding for stormwater recharge projects that augment local water supplies. The State Water Board shall promote the use of the State Revolving Fund (SRF) for water purveyor, stormwater agencies, and water recyclers to use for water reuse and stormwater use and recharge projects.~~

~~b. Stormwater~~

~~The State Water Board strongly encourages all water purveyors to provide financial incentives for water recycling and stormwater recharge and reuse projects. The State Water Board also encourages the Regional Water Boards to require less stringent monitoring and regulatory requirements~~

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~~for stormwater treatment and use projects than for projects involving untreated stormwater discharges.~~

~~e. TMDLs~~

~~Water recycling reduces mass loadings from municipal wastewater sources to impaired waters. As such, waste load allocations shall be assigned as appropriate by the Regional Water Boards in a manner that provides an incentive for greater water recycling.~~

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ATTACHMENT A

**REQUIREMENTS FOR MONITORING
CONSTITUENTS OF EMERGING CONCERN
FOR RECYCLED WATER**

The purpose of this attachment to the ~~Recycled Water Policy (Policy)~~ is to provide direction to the ~~Regional Water Quality Control Boards (regional water boards)~~ on monitoring requirements for constituents of emerging concern⁴ (CECs) in ~~recycled municipal wastewater, herein referred to as "recycled water."~~ The monitoring requirements and criteria for evaluating monitoring results in the ~~Policy~~ are based on recommendations from a Science Advisory Panel².

The monitoring requirements in this attachment pertain only to the production and use of recycled water for groundwater recharge reuse³ ~~by surface and subsurface application methods and reservoir water augmentation~~. ~~The monitoring requirements apply to Recycled water producers, including entities that further treat or enhance the quality of recycled water supplied by municipal wastewater treatment facilities, and using recycled water for groundwater recharge or for reservoir water augmentation shall follow the monitoring requirements in this attachment reuse facilities.~~

~~Groundwater recharge by surface application is the controlled application of water to a spreading area for infiltration resulting in the recharge of a groundwater basin. Subsurface application is the controlled application of water to a groundwater basin or aquifer by a means other than surface application, such as direct injection through a well.~~

~~The California Department of Public Health (CDPH) shall be consulted for any additional monitoring requirements for recycled water use found necessary by CDPH to protect human health.~~

⁴ For this Policy, CECs are defined to be chemicals in personal care products, pharmaceuticals including antibiotics, antimicrobials; industrial, agricultural, and household chemicals; hormones; food additives; transformation products, inorganic constituents, and nanomaterials.

² The Science Advisory Panel was convened in accordance with provision 10.240.b. of the Policy. The panel's recommendations were presented in the report: [Monitoring Strategies for Chemicals Constituents of Emerging Concern \(CECs\) in Recycled Water – Recommendations of a Science Advisory Panel](#), dated April 2018/June 25, 2019.

³ As used in this attachment, use of recycled water for groundwater recharge reuse has the same meaning as indirect potable reuse for groundwater recharge as defined in Water Code section 13561(c), where it is defined as the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system.

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1. CECs AND SURROGATES

Within this Policy, CECs of toxicological relevance to human health are referred to as "health-based CECs."⁴ CECs determined not to have human health relevance, but useful for monitoring treatment process effectiveness, are referred to as "performance indicator CECs." A performance indicator CEC is an individual CEC used for evaluating a family of CECs with similar physicochemical or biodegradable characteristics. The removal of a performance indicator CEC through a treatment process provides an indication of removal of CECs with similar properties. A health-based CEC may also serve as a performance indicator CEC.

A surrogate is a measurable physical or chemical property, such as chlorine residual or electrical conductivity, that can be used to measure the effectiveness of trace organic compound removal by treatment process and/or provide an indication of a treatment process failure. A reverse osmosis (RO) treatment process, for example, is expected to substantially reduce the electrical conductivity of the recycled water being treated. This reduction in the level of the surrogate also provides an indication that inorganic and organic compounds, including CECs, are being removed.

Recycled water monitoring programs used for groundwater recharge reuse shall include monitoring for: (1) human health-based CECs; (2) performance indicator CECs; and (3) surrogates. The purpose of monitoring performance indicator CECs and surrogates is to assess the effectiveness of unit processes to remove CECs. For this policy for groundwater recharge reuse, unit processes that remove CECs include RO, advanced oxidation processes (AOPs), and soil aquifer treatment.⁵ AOPs are treatment processes involving the use of oxidizing agents, such as hydrogen peroxide and ozone, combined with ultraviolet light irradiation. Soil aquifer treatment is a natural treatment process that removes CECs as water passes through soil, the vadose zone, and within an aquifer.

This Policy provides CEC monitoring requirements for recycled water which undergoes additional treatment by soil aquifer treatment or by RO followed by AOPs. CEC monitoring requirements for groundwater recharge reuse projects implementing treatment processes that provide control of CECs by processes other than soil aquifer treatment or RO/AOPs shall be established on a case-by-case basis by the State Water Board in consultation with CDPH.

⁴ Health-based CECs were determined through a screening process that was developed and conducted by the CEC Science Advisory Panel; [Monitoring Strategies for Chemicals of Emerging Concern \(CECs\) in Recycled Water – Recommendations of a Science Advisory Panel](#), dated June 25, 2010.

⁵ For evaluating removal of CECs, the treatment zone for soil aquifer treatment is from the surface of the application area through the unsaturated zone to groundwater, including groundwater within a 30-day travel time distance through the aquifer downgradient of the surface application area.

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~~Monitoring of health-based CECs or performance indicator CECs is not required for recycled water used for landscape irrigation due to the low risk for ingestion of the water.⁶~~

~~1.1. CECs for Monitoring Programs~~

~~This Policy provides requirements for monitoring CECs in recycled water used for groundwater recharge reuse. The regional water boards shall not issue requirements for monitoring of additional CECs in recycled water beyond the requirements provided in this Policy except when recommended by the State Water Board~~CDPH~~ or requested by the recycled water project proponent or recycled water producer.~~

CEC monitoring requirements for groundwater recharge projects implementing treatment processes that provide control of CECs by processes other than soil aquifer treatment or reverse osmosis/advanced oxidation processes (RO/AOPs) shall be established on a case-by-case basis by the State Water Board. CEC monitoring requirements for reservoir water augmentation projects implementing treatment processes that provide control of CECs by processes other than RO/AOPs shall be established on a case-by-case basis by the State Water Board.

Monitoring results required by this Policy shall be electronically reported to a database identified by the State Water Board.

~~Table 1 provides the health-based CECs and performance indicator CECs to be monitored along with their respective reporting limits. All CECs listed for a recycled water application shall be monitored during an initial assessment monitoring phase, as described in Section 3.1. Based on monitoring results and findings, the list of performance indicator CECs required for monitoring may be refined for subsequent monitoring phases. The health-based CECs listed in Table 1 shall be monitored during the entirety of the initial assessment and baseline monitoring phases (Sections 3.1 and 3.2). Based on the results of the baseline monitoring phase and/or subsequent monitoring, the list of health-based CECs required for monitoring may be revised. The method for evaluation of monitoring results for health-based CECs is provided in Section 4.2.~~

1 QUALITY ASSURANCE AND QUALITY CONTROL

This section is to ensure laboratories conducting CEC monitoring generate data of known, consistent, and documented quality and to verify that the laboratory can meet

⁶“For monitoring programs to assess CEC threats for urban irrigation reuse, none of the chemicals for which measurement methods and exposure data are available exceeded the threshold for monitoring priority. This is largely attributable to higher Monitoring Trigger Levels (MTLs), because of reduced water ingestion in a landscape irrigation setting compared to drinking water.” MTLs are health-based screening level values for CECs for a particular water reuse scenario. MTLs were established in, [Monitoring Strategies for Chemicals of Emerging Concern \(CECs\) in Recycled Water – Recommendations of a Science Advisory Panel](#), dated June 25, 2010.

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the required reporting limits. Quality assurance and quality control measures shall be used for both collection of samples and laboratory analysis work. The recycled water project proponent or recycled water producer shall develop a quality assurance project plan that ~~is consistent with this Policy~~ ~~includes the appropriate number of field blanks, laboratory blanks, replicate samples, and matrix spikes.~~ The quality assurance project plan shall be submitted to and approved by the regional water board prior to beginning any sampling and analysis.

Quality Management Systems

The recycled water project proponent or recycled water producer shall confirm and be able to produce documentation that a laboratory used to perform analysis of CECs required under this Policy has a laboratory quality management system in place that meets the requirements described in 1.1.1 or 1.1.2 below. The requirements in 1.1.1 and 1.1.2 describe equivalent quality management systems. The recycled water project proponent or recycled water producer shall make such documentation available if requested by the State Water Board or regional water board. A laboratory must comply with the requirements of either 1.1.1 or 1.1.2:

Comply with the management and technical requirements applicable to their operations in accordance with The National Environmental Laboratory Accreditation Conference Institute (NELAP) 2016 Standard Volume 1, Module 2 – 7, with the following exceptions:

Volume 1, Module 2, Section 4.1.7.2(f) – Technical Manager Qualifications; and

Volume 1, Module 2, Section 5.2.6 – Additional Personnel Requirements.

Develop and implement a quality assurance program to ensure the reliability and validity of the analytical or bioanalytical data produced by the laboratory. As evidence of such a program, the laboratory shall develop and maintain a quality manual.

The quality manual shall address all quality assurance and quality control practices to be employed by the laboratory and shall, at least, include the quality assurance and quality control requirements specified for the CECs and bioanalytical test methods. The quality manual shall include the following elements: laboratory organization and personnel responsibilities; quality assurance objectives for measurement data; sampling procedures (when the laboratory performs the sampling); custody, handling, and disposal of samples; calibration procedures and frequency; analytical procedures; acquisition and reduction, validation and reporting of data; internal quality control checks; performance and system audits; preventive maintenance; assessment of precision and accuracy; corrective action; and quality assurance reports.

The laboratory's technical manager shall review, and amend if necessary, the quality assurance program and quality manual at least annually. The technical manager shall also review and amend the quality assurance program and manual whenever there are changes in methods or laboratory equipment employed, in the laboratory structure or physical arrangements, or changes in the laboratory organization.

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A laboratory shall maintain records of the implementation of its quality assurance program, and provide those records upon request of the State Water Board or the regional water board. Records shall be maintained for a minimum of five years.

Chemistry Analyses

Selection of Analytical Chemistry Methods

Analytical chemistry methods for laboratory analysis of CECs shall be selected to achieve the reporting limits presented in Table 1. The State Water Board views the use of drinking water methods as most appropriate, since they are generally more sensitive than wastewater methods. However, this may not always be possible, since there may be characteristics of recycled water (e.g., high total dissolved solids) that may make the use of drinking water methods impractical. A laboratory providing analysis of CECs shall be accredited by the Environmental Laboratory Accreditation Program (ELAP) for whichever method is selected based on (1)-(4) below, if such accreditation is available at the time that monitoring is required to begin. Any modifications to the methods shall be submitted to the State Water Board for review and subsequently submitted to the regional water board in an updated quality assurance project plan.

Analytical chemistry methods shall be selected in the following hierarchical order:

- (1) Use USEPA-approved methods, if available. If more than a single USEPA-approved method is available, consult with the State Water Board to determine the appropriate USEPA-approved method. If these methods are unavailable;
- (2) Use Standard Methods, if available. If more than a single Standard Method is available, consult with the State Water Board to determine the appropriate Standard Method. If these methods are unavailable;
- (3) Use methods required by the State Water Board for state-only drinking water standards or for identifying chemicals having notification levels. If these methods are unavailable;
- (4) Use a method from the scientific literature (e.g., peer-reviewed journals). If more than one method is available, consult with State Water Board to determine an appropriate method.

Analytical chemistry data submission

Method detection limit studies and reporting limit verification data shall be submitted to the State Water Board for review and approval prior to beginning any sampling and analysis to ensure that the data meets the required reporting limits in Table 1. Percent recoveries and acceptable recovery ranges for each analyte shall be reported to the regional water board with each data set.

Bioanalytical Screening Tools

Selection of Bioanalytical Screening Tool Methods

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Bioanalytical screening tool methods shall be selected to achieve the reporting limits presented in Table 2. A laboratory providing analysis for bioanalytical screening tools shall be accredited by ELAP for whichever method is selected based on (1) or (2) below, if such accreditation is available at the time that monitoring is required to begin. Any modifications to the methods shall be submitted to the State Water Board for review and subsequently submitted to the regional water board in an updated quality assurance project plan.

Bioanalytical screening tool methods shall be selected in the following hierarchical order:

- (1) Use USEPA methods, if available. If more than a single USEPA-approved method is available, consult with the State Water Board to determine the appropriate USEPA-approved method. If these methods are unavailable;
- (2) Consult with the State Water Board to determine an appropriate method.

Bioanalytical screening tool data submission

Method detection limit studies and reporting limit verification data shall be submitted to the State Water Board for review and approval prior to beginning any sampling and analysis to ensure that the data meets the required reporting limits in Table 2.

CEC MONITORING REQUIREMENTS

Health-based CECs and Performance Indicator CECs

Table 1 provides the monitoring requirements and reporting limits for the health-based CECs and performance indicator CECs for groundwater recharge and reservoir water augmentation.

All CECs listed for a recycled water application shall be monitored during an initial assessment monitoring phase, as described in 4.1 of Attachment A. Based on monitoring results and findings, the regional water board may refine the required list of performance indicator CECs for subsequent monitoring phases.

The health-based CECs listed in Table 1 shall be monitored during the entirety of the initial assessment and baseline monitoring phases (4.1 and 4.2 of Attachment A). Based on the results of the baseline monitoring phase and/or subsequent monitoring, the regional water board may refine the required list of health-based CECs. The method for evaluating monitoring results for health-based CECs is provided in 5.2 of Attachment A.

Table 1: Health-based CECs and performance indicator CECs Table 1—CECs to be Monitored

Constituent	Constituent Group	Relevance/Indicator Type	Reporting Limit (µg/L)
GROUNDWATER RECHARGE REUSE-- SURFACE APPLICATION			

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17 β -estradiol	Steroid hormones	Health	0.001
Caffeine	Stimulant	Health & Performance	0.05
1,4-Dioxane	Industrial chemical	Health	0.1
N-Nitrosodimethylamine (NDMA)	Disinfection byproduct	Health	0.002
N-Nitrosomorpholine (NMOR)	Industrial chemical	Health	0.002
Triclosan	Antimicrobial	Health	0.05
Gemfibrozil	Pharmaceutical	Performance	0.01
Iohexol	Pharmaceutical	Performance	0.05
Iopromide	Pharmaceutical	Performance	0.05
N,N-Diethyl meta-toluamide (DEET)	Personal care product	Performance	0.05
Sucralose	Food additive	Performance	0.1
Sulfamethoxazole	Antibiotic	Performance	0.01
RESERVOIR WATER AUGMENTATION AND GROUNDWATER RECHARGE REUSE– SUBSURFACE APPLICATION			
17 β -estradiol	Steroid hormones	Health	0.001
Caffeine	Stimulant	Health & Performance	0.05
1,4-Dioxane	Industrial chemical	Health	0.1
NDMA	Disinfection byproduct	Health & Performance	0.002
NMOR	Industrial chemical	Health	0.002
Triclosan	Antimicrobial	Health	0.05
DEET	Personal care product	Performance	0.05
Sucralose	Food additive	Performance	0.1
Sulfamethoxazole	Antibiotic	Performance	0.01

μ g/L – Micrograms per liter

Analytical methods for laboratory analysis of CECs shall be selected to achieve the reporting limits presented in Table 1. The analytical methods shall be based on methods published by the United States Environmental Protection Agency, methods certified by CDPH, or peer reviewed and published methods that have been reviewed by CDPH, including those published by voluntary consensus standards bodies such as the Standards Methods Committee and the American Society for Testing and Materials International. Any modifications to the published or certified methods shall be reviewed by CDPH and subsequently submitted to the Regional Water Board in an updated quality assurance project plan.

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4.2. Surrogates for CECs Monitoring Programs

Table 2 presents a list of surrogates that shall be considered for monitoring treatment of recycled water used for groundwater recharge reuse and reservoir water augmentation. Other surrogates not listed in Table 2 may also be considered.

The recycled water project proponent or recycled water producer shall propose develop surrogates to monitor on a case-by-case basis appropriate for the treatment process or processes, in consultation with the regional water board. The regional water board shall review and approve the selected surrogates in consultation with the State Water Board CDPH.

Where applicable, surrogates may be measured using on-line or hand-held instruments provided that instrument calibration procedures are implemented in accordance with the manufacturer’s specifications and that calibration is documented.

Table 2: Surrogates for CECs

GROUNDWATER RECHARGE REUSE - SURFACE APPLICATION
Ammonia
Total Dissolved Organic Carbon (TDOC)
Nitrate
Total fluorescence
Ultraviolet (UV) Light Absorbance ption
RESERVOIR WATER AUGMENTATION AND GROUNDWATER RECHARGE REUSE - SUBSURFACE APPLICATION
Electrical Conductivity
TDOC
UV Light Absorbance

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Bioanalytical Screening Tools for CECs

Table 3 provides the required bioanalytical screening tools and reporting limits for groundwater recharge and reservoir water augmentation. All bioanalytical screening tools listed in Table 3 shall be used in monitoring during an initial assessment monitoring phase, as described in 4.1 of Attachment A. The bioanalytical screening tools listed in Table 3 shall be used in monitoring during the entirety of the initial assessment and baseline monitoring phases (4.1 and 4.2 of Attachment A). Based on the results of the baseline monitoring phase and/or subsequent monitoring, the regional water board may revise the frequency of monitoring with bioanalytical screening tools. The method for evaluating bioanalytical screening tool monitoring results is provided in 5.3 of Attachment A.

Table 3: Bioanalytical screening tools for CECs

<u>Endpoint Activity</u>	<u>Relevant CECs</u>	<u>Adverse effect</u>	<u>Reporting Limit (ng/L)</u>
<u>RESERVOIR WATER AUGMENTATION AND GROUNDWATER RECHARGE – SURFACE AND SUBSURFACE APPLICATION</u>			
<u>Estrogen receptor-α (ER-α)</u>	<u>Estradiol, bisphenol A, nonylphenol</u>	<u>Feminization, impaired reproduction, cancer</u>	<u>0.5</u>
<u>Aryl hydrocarbon receptor (AhR)</u>	<u>Dioxin-like chemicals, polycyclic aromatic hydrocarbons, pesticides</u>	<u>Cancer, impaired reproduction</u>	<u>0.5</u>

2. MONITORING LOCATIONS

Monitoring locations for the CEC Monitoring Requirements in Section 2-s and surrogates are described in this section and are presented in Table 4, Table 5, and Table 6.

2.1. Health-Based CEC Monitoring Locations

2.1.1. Groundwater Recharge Reuse - Surface Application

For groundwater recharge ~~reuse~~ projects implementing surface application of recycled water, health-based CECs, performance indicator CECs, surrogates and bioanalytical screening tools shall be monitored at these locations:

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(1) Following tertiary treatment⁷ prior to application to the surface spreading area; and

(2) At monitoring well locations designated in consultation with the State Water Board~~CDPH~~ within the distance groundwater travels downgradient from the application site in 30 days.

~~Monitoring locations for health-based CECs for the phases of monitoring are presented in Tables 3 through 5.~~

2.1.2. Groundwater Recharge Reuse - Subsurface Application

Monitoring Locations for Health-Based CECs and Bioanalytical Screening Tools

For groundwater recharge ~~reuse~~ projects implementing subsurface application of recycled water, health-based CECs and bioanalytical screening tools shall be monitored at a location following treatment prior to release into ~~an~~the aquifer.

**2.2. Monitoring Locations for Performance Indicator CECs and Surrogates
Monitoring Locations**

~~To allow evaluation of individual unit processes or a combination of unit processes that provide removal of CECs, performance indicator CECs and surrogates shall be monitored at the locations described below and presented in Tables 3 through 5.~~

~~2.2.1. Groundwater Recharge Reuse – Surface Application~~

~~For groundwater recharge reuse projects using surface application of recycled water, performance indicator CECs and surrogates shall be monitored at these locations:~~

~~(1) Following tertiary treatment prior to application to the surface spreading area; and~~

~~(2) At monitoring well locations designated in consultation with CDPH within the distance groundwater travels downgradient from the application site in 30 days.~~

~~Monitoring locations for performance indicator CECs and surrogates for the phases of monitoring are presented in Tables 3 through 5.~~

~~2.2.2. Groundwater Recharge Reuse – Subsurface Application~~

For groundwater recharge ~~reuse~~ projects using subsurface application of recycled water, performance indicator CECs shall be monitored in recycled water at these locations:

(1) Prior to treatment by RO; and

(2) Following treatment prior to release into the aquifer.

⁷ Standards for disinfected tertiary recycled water presented in California Code of Regulations, Title 22, section 60301.230 and 60301.320.

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If the recycled water project proponent or recycled water producer can demonstrate that the RO unit will not substantially remove a CEC, the regional water board may allow monitoring for that CEC prior to the AOPs, instead of prior to the RO unit.

For groundwater recharge ~~reuse~~-projects using subsurface application of recycled water, surrogates shall be monitored at locations proposed by the project proponent or recycled water producer and approved by the regional water board in consultation with the State Water Board ~~CDPH~~.

Reservoir Water Augmentation

Monitoring Locations for Health-Based CECs and Bioanalytical Screening Tools

For reservoir water augmentation projects, health-based CECs and bioanalytical screening tools shall be monitored at a location following treatment prior to release into the surface water reservoir.

Monitoring Locations for Performance Indicator CECs and Surrogates

For reservoir water augmentation projects, performance indicator CECs shall be monitored in recycled water at these locations:

(1) Prior to treatment by RO; and

(2) Following treatment prior to release into the surface water reservoir.

If the recycled water project proponent or producer can demonstrate that the RO unit will not substantially remove a CEC, the regional water board may allow monitoring for that CEC prior to the AOPs, instead of prior to the RO unit. For reservoir water augmentation projects, surrogates shall be monitored at locations proposed by the recycled water project proponent or producer and approved by the regional water board in consultation with the State Water Board.

3. PHASED MONITORING REQUIREMENTS

The regional water board shall phase the monitoring requirements for CECs ~~and~~ surrogates, and bioanalytical screening tools for groundwater recharge ~~reuse~~ and reservoir water augmentation projects. The purpose of phased monitoring is to allow monitoring requirements for health-based CECs, performance indicator CECs ~~and~~ surrogates, and bioanalytical screening tools to be refined based on the monitoring results and findings of the previous phase. An initial assessment monitoring phase, followed by a baseline monitoring phase, shall be conducted to determine the project-specific monitoring requirements for standard operations. The initial assessment and baseline monitoring phases shall be conducted after ~~State Water Board CDPH~~ approval for groundwater recharge ~~reuse project operation~~ or reservoir water augmentation project's Title 22 Engineering Report.

3.1. Initial Assessment Monitoring Phase

The purposes of the initial assessment phase are to: (1) identify the occurrence of health-based CECs, performance indicator CECs, and surrogates in recycled water and

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groundwater;⁸ (2) determine treatment effectiveness; (3) define the project-specific performance indicator CECs and surrogates to monitor during the baseline phase; and (4) specify the expected removal percentages for performance indicator CECs and surrogates; and (5) determine whether bioactivity for ER- α and AhR bioassays are below their respective action levels. The monitoring requirements for the initial assessment monitoring phase shall apply to the start-up of new facilities, piloting of new unit processes at existing facilities, and existing facilities where CECs, ~~and~~ surrogates, and bioanalytical screening tools have not been assessed equivalent to the requirements of this Policy. Data from prior assessment need not replicate the exact frequency and duration of the initial assessment phase requirements specified in Table ~~43~~, if the overall robustness and size of the data are sufficient to adequately characterize the CECs, surrogates, bioactivity, and treatment performance. The initial assessment monitoring phase shall be conducted for a period of one year.

During the initial assessment monitoring phase for the applicable recycled water application method, each of the health-based CECs and performance indicator CECs listed in Table 1 and appropriate surrogates (see ~~Section 4.2 of Attachment A~~) shall be monitored, as well as the bioanalytical screening tools. Surrogates shall be selected to monitor individual unit processes or combinations of unit processes that remove CECs. Performance indicator CEC and surrogate monitoring results that demonstrate measurable removal for a given unit process shall be candidates for use in the monitoring programs for the baseline and standard operation phases. Monitoring requirements for the initial assessment phase are summarized in Table ~~43~~.

~~For existing groundwater recharge reuse projects in operation prior to 2013,~~ historic monitoring data may be used to assess the occurrence and removal of CECs and surrogates. Existing projects demonstrating prior assessment of CECs and surrogates equivalent to the initial assessment phase requirements of this Policy may skip the initial monitoring phase and initiate the baseline monitoring phase requirements in ~~Section 3.2 of Attachment A~~. Existing projects shall conduct bioanalytical monitoring according to the frequency specified in Table 4.

Monitoring results shall be evaluated following each sampling event to allow timely implementation of any response actions. If evaluation of monitoring results indicates a concern, such as finding a concentration of a health-based CEC above the thresholds described in Table 7, more frequent monitoring may be required to further evaluate the effectiveness of the treatment process. Additional actions may also be warranted, which may include, but not be limited to, resampling to confirm a result, additional monitoring, implementation of a source identification program, toxicological studies, engineering removal studies, and/or modification of facility operations. If additional monitoring is required, the regional water board shall consult with the State Water Board ~~CDPH~~ and revise the Monitoring and Reporting Program as appropriate. Evaluation of monitoring results and determination of appropriate response actions based on the monitoring results are presented in Section 45 of Attachment A.

⁸ The identification of the occurrence of health-based CECs, performance indicator CECs, and surrogates in groundwater only applies to groundwater recharge ~~reuse~~ by surface application.

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Following completion of the initial assessment monitoring phase, monitoring requirements shall be re-evaluated and subsequent requirements for the baseline monitoring phase shall be determined on a project-specific basis.

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Table 43: Initial Assessment Phase Monitoring Requirements

Recycled Water Use	Constituent	Frequency	Monitoring Point
Groundwater Recharge Reuse - Surface Application	Health-Based CECs and Performance Indicator CECs: All listed in Table 1.	Quarterly ¹	- Following tertiary treatment prior to application to surface spreading area. - At monitoring well locations designated in consultation with the State Water Board CDPH . ²
	Surrogates: To be selected on a project-specific basis (see 2.2) considering those listed in Table 2. ⁴	1 st 3 months: To be determined on a project-specific basis. ³	- Following tertiary treatment prior to application to the surface spreading area. - At monitoring well locations designated in consultation with the State Water Board CDPH . ²
		3-12 months: To be determined on a project-specific basis. ³	- Following tertiary treatment prior to application to the surface spreading area. - At monitoring well locations designated in consultation with the State Water Board CDPH . ²
	<u>Bioanalytical Screening Tools:</u> All listed in Table 2.	Quarterly ¹	- Following tertiary treatment prior to application to surface spreading area. - At monitoring well locations designated in consultation with the State Water Board. ²
<u>Reservoir Water Augmentation and Groundwater Recharge</u> Reuse -Subsurface Application	Health-Based CECs: All listed in Table 1.	Quarterly ¹	Following treatment prior to release to the aquifer <u>or</u> surface water reservoir.
	Performance Indicator CECs: All listed in Table 1.	Quarterly ¹	- Prior to RO treatment. ⁴ - Following treatment prior to release to the aquifer <u>or</u> surface water reservoir.
	Surrogates: To be selected on a project-specific basis (see 2.2) considering those listed in Table 2. ⁴	To be determined on a project-specific basis.	- At locations approved by the regional water board. ⁶⁵
	<u>Bioanalytical Screening Tools:</u> All listed in Table 2.	Quarterly ¹	Following treatment prior to release to the aquifer <u>or</u> surface water reservoir.

¹ —This is the initial monitoring frequency for the monitoring and reporting program. The regional water board may require additional monitoring to respond to a concern as stated in Section 34.1 of Attachment A.

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² —Groundwater within the distance groundwater travels downgradient from the application site in 30-days.

³ —The monitoring frequency shall be determined by the regional water board in consultation with the State Water Board~~CDPH~~. The intent is to have an increased monitoring frequency during the first three months and a decreased monitoring frequency after three months.

⁴ —If the recycled water project proponent or producer can demonstrate that the RO unit will not substantially remove a CEC, the regional water board may allow monitoring for that CEC prior to the AOP, instead of prior to the RO unit.

⁵ —~~See Section 1.2 for guidance on selection of surrogates.~~

⁶ —~~See Section 2.2.2 of Attachment A for information on surrogate monitoring locations for subsurface application and 3.3.2 of Attachment A for reservoir water augmentation.~~

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3.2. Baseline Monitoring Phase

Based on the findings of the initial assessment monitoring phase, project-specific performance indicator CECs and surrogates shall be selected for monitoring during the baseline monitoring phase. The purpose of the baseline monitoring phase is to assess and refine which health-based CECs, performance indicator CECs, ~~and surrogates, and~~ bioanalytical screening tools are appropriate to monitor the removal of CECs and treatment system performance for the standard operation of a facility. Performance indicator CECs and surrogates that exhibited reduction by unit processes and/or provided an indication of operational performance shall be selected for monitoring during the baseline monitoring phase. Surrogates not reduced through a unit process are not good indicators of the unit's intended performance. For example, soil aquifer treatment may not effectively lower electrical conductivity. Therefore, electrical conductivity may not be a good surrogate for soil aquifer treatment. The baseline monitoring phase shall be conducted for a period of three years following the initial assessment monitoring phase. Monitoring requirements for the baseline phase are summarized in Table 54. If a performance indicator CEC listed in Table 1 is found not to be a good indicator, the recycled water producer shall propose an alternative performance indicator CEC representative of the constituent group to monitor. This performance indicator CEC shall be subject to approval by the regional water board in consultation with the State Water Board ~~CDPH~~.

For ~~existing~~ groundwater recharge ~~reuse~~ projects in operation prior to 2013, historic monitoring data may be used to assess removal of health-based CECs, performance indicator CECs and surrogates. ~~Existing~~ Projects in operation prior to 2013 that can demonstrate prior assessment of CECs and surrogates equivalent to the initial assessment phase and baseline phase requirements of this Policy may be eligible for the standard operation monitoring requirements.

Monitoring results shall be evaluated following each sampling event to allow timely implementation of any response actions. If evaluation of monitoring results indicates a concern, such as finding a concentration of a health-based CEC above the thresholds described in Table 7, more frequent monitoring may be required to further evaluate the effectiveness of the treatment process. Additional actions may also be warranted, which may include, but not be limited to, resampling to confirm a result, additional monitoring, implementation of a source identification program, toxicological studies, engineering removal studies, and/or modification of facility operation. If additional monitoring is required, the regional water board shall consult with the State Water Board ~~CDPH~~ and revise the Monitoring and Reporting Program as appropriate. Evaluation of monitoring results and determination of appropriate response actions based on the monitoring results are presented in Section 45 of Attachment A.

Following the baseline operation monitoring phase, monitoring requirements shall be re-evaluated and subsequent requirements for the standard operation of a project shall be determined on a project-specific basis consistent with 4.3 of Attachment A.

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Table 54: Baseline Phase Monitoring Requirements

Recycled Water Use	Constituent	Frequency	Monitoring Point
Groundwater Recharge Reuse – Surface Application	Health-Based CECs: All listed in Table 1.	Semi-Annually ¹	- Following tertiary treatment prior to application to the surface spreading area.
	Performance Indicator CECs: Selected based on the findings of the initial assessment phase.		- At monitoring well locations designated in consultation with the State Water Board GDPH . ²
	Surrogates: Selected based on the findings of the initial assessment phase.	Based on findings of the initial assessment phase.	- Following tertiary treatment prior to application to the surface spreading area. - At monitoring well locations designated in consultation with the State Water Board GDPH . ²
	<u>Bioanalytical Screening Tools:</u> All listed in Table 2.	<u>Semi-Annually¹</u>	- <u>Following tertiary treatment prior to application to the surface spreading area.</u> <u>- At monitoring well locations designated in consultation with the State Water Board.²</u>
<u>Reservoir Water Augmentation and Groundwater Recharge</u> Reuse – Subsurface Application	Health-Based CECs: All listed in Table 1.	Semi-Annually ¹	Following treatment prior to release to the aquifer <u>or</u> surface water reservoir.
	Performance Indicator CECs: Selected based on the findings of the initial assessment phase.	Semi-Annually ¹	- Prior to RO treatment. ³ - Following treatment prior to release to the aquifer <u>or</u> surface water reservoir.
	Surrogates: Selected based on the findings of the initial assessment phase.	Based on findings of the initial assessment phase.	- At locations approved by the regional water board. ⁴
	<u>Bioanalytical Screening Tools:</u> All listed in Table 2.	<u>Semi-Annually¹</u>	<u>Following treatment prior to release to the aquifer or surface water reservoir.</u>

¹ —More frequent monitoring may be required to respond to a concern as stated in ~~Section 34.2 of Attachment A.~~

² —Groundwater within the distance groundwater travels downgradient from the application site in 30-days.

³ —If the ~~recycled water producer project proponent~~ can demonstrate that the RO unit will not substantially remove a CEC, the regional water board may allow monitoring for that CEC prior to the AOP, instead of prior to the RO unit.

⁴ —See ~~Section 23.2.2 of Attachment A~~ for information on surrogate monitoring locations for subsurface application and 3.3.2 of Attachment A for reservoir water augmentation.

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3.3. Standard Operation Monitoring Phase

Based on the findings of the baseline monitoring phase, monitoring requirements for health-based CECs, performance indicator CECs, ~~and surrogates, and bioanalytical screening tools~~ may be refined to establish project-specific requirements for monitoring the standard operating conditions of a groundwater recharge ~~reuse or reservoir water augmentation~~ project. Monitoring requirements for the standard operation phase are summarized in Table ~~65~~. The list of health-based CECs may be revised to remove a health-based CEC from the list if monitoring results meet the conditions of the minimum threshold level presented in Table ~~87~~. Performance indicator CECs and surrogates that exhibited reduction by a unit process and/or provided an indication of operational performance shall be selected for monitoring of standard operations. If a performance indicator CEC is found to be a poor indicator, the ~~recycled water producer project proponent~~ shall propose an alternative performance indicator CEC representative of the constituent group to monitor. This performance indicator CEC shall be subject to approval by the regional water board in consultation with ~~the State Water Board~~CDPH. ~~The list of bioanalytical screening tools may be revised to remove a bioanalytical screening tool from the list if monitoring results meet the conditions of the minimum threshold level presented in Table 4.~~

Monitoring locations for the standard operation phase shall be the same as the locations used for the baseline monitoring phase.

Monitoring for health-based CECs, ~~and performance indicator CECs, and with bioanalytical screening tools~~ shall be conducted on a semi-annual basis, unless the project demonstrates consistency in treatment effectiveness in removal of CECs, treatment operational performance, and appropriate recycled water quality. These projects may be monitored for CECs ~~and with bioanalytical screening tools~~ on an annual basis. Monitoring frequencies for CECs and surrogates for standard operation monitoring are presented in Table ~~65~~.

Monitoring results shall be evaluated following each sampling event to allow timely implementation of any response actions. If evaluation of monitoring results indicates a concern, such as finding a health-based CEC above the thresholds described in Table 7 or a decline in removal of a performance indicator CEC from the performance levels established during the initial and baseline monitoring phases, more frequent monitoring may be required to further evaluate the effectiveness of the treatment process. Additional actions may also be warranted, which may include, but not be limited to, resampling to confirm a result, additional monitoring, implementation of a source identification program, toxicological studies, engineering removal studies, and/or modification of facility operation. If additional monitoring is required, the regional water board shall consult with ~~the State Water Board~~CDPH and revise the Monitoring and Reporting Program as appropriate. Evaluation of monitoring results and determination of appropriate response actions based on the monitoring results are presented in Section ~~45 of Attachment A~~.

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Table 65: Standard Operation Monitoring Requirements

Recycled Water Use	Constituent	Frequency	Monitoring Point
Groundwater Recharge Reuse -Surface Application	Health-Based CECs: Selected based on the findings of the baseline phase.	Semi-Annually or Annually ⁴	- Following tertiary treatment prior to application to the surface spreading area.
	Performance Indicator CECs: Selected based on the findings of the baseline phase.		- At monitoring well locations designated in consultation with the State Water Board CDPH . ²
	Surrogates: Selected based on the findings of the baseline phase.	Based on findings of the baseline assessment phase.	- Following tertiary treatment prior to application to the surface spreading area. - At monitoring well locations designated in consultation with the State Water Board CDPH . ²
	<u>Bioanalytical Screening Tools:</u> <u>Selected based on the findings of the baseline phase.</u>	<u>Semi-Annually¹</u>	- <u>Following tertiary treatment prior to application to the surface spreading area.</u> - <u>At monitoring well locations designated in consultation with the State Water Board.²</u>
Reservoir Water Augmentation and Groundwater Recharge Reuse -Subsurface Application	Health-Based CECs: Selected based on the findings of the baseline phase.	Semi-Annually or Annually ¹	-Following <u>RO/AOPs</u> treatment prior to release to the aquifer <u>or surface water reservoir.</u>
	Performance Indicator CECs: Selected based on the findings of the baseline phase.	Semi-Annually or Annually ¹	- Prior to RO treatment. ³ - Following treatment prior to release to the aquifer <u>or surface water reservoir.</u>
	Surrogates: Selected based on the findings of the baseline phase. ₂	Based on findings of the baseline assessment phase.	At locations approved by the regional water board. ⁴
	<u>Bioanalytical Screening Tools:</u> <u>Selected based on the findings of the baseline phase.</u>	<u>Semi-Annually¹</u>	<u>Following treatment prior to release to the aquifer or surface water reservoir.</u>

¹ —More frequent monitoring may be required to respond to a concern as stated in ~~Section 34.3 of~~ Attachment A.

² —Groundwater within the distance groundwater travels downgradient from the application site in 30-days.

³ —If the ~~recycled water producer project proponent~~ can demonstrate that the RO unit will not substantially remove a CEC, the regional water board may allow monitoring for that CEC prior to the AOP, instead of prior to the RO unit.

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⁴ —See ~~Section 2.3.2.2~~ of Attachment A for information on surrogate monitoring locations for subsurface application and 3.3.2 of Attachment A for reservoir water augmentation.

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4. EVALUATION OF CEC, AND SURROGATE, AND BIOANALYTICAL SCREENING TOOL MONITORING RESULTS

This section presents the approaches for evaluating treatment process performance and health-based CEC and bioanalytical screening tool monitoring results. Monitoring results for performance indicator CECs and surrogates shall be used to evaluate the operational performance of a treatment process and the effectiveness of a treatment process in removing CECs. For evaluation of health-based CEC and bioanalytical screening tool monitoring results, a multi-tiered approach of thresholds and corresponding response actions is presented in 5.2 and 5.3 of Attachment A, respectively ~~Section 4.2~~. The evaluation of monitoring results shall be included in monitoring reports submitted to the regional water board ~~and CDPH~~.

4.4 Evaluation of Performance Indicator CEC and Surrogate Results

The effectiveness of a treatment process to remove CECs shall be evaluated by determining the removal percentages for performance indicator CECs and surrogates. The removal percentage is the difference in the concentration of a compound in recycled water prior to and after a treatment process (e.g., soil aquifer treatment or RO followed by AOPs), divided by the concentration prior to the treatment process and multiplied by 100.

$$\text{Removal Percentage} = ([X_{in} - X_{out}]/X_{in}) (100)$$

X_{in} - Concentration in recycled water prior to a treatment process

X_{out} - Concentration in recycled water after a treatment process

During the initial assessment, the recycled water project proponent or recycled water producer shall monitor performance to determine removal percentages for performance indicator CECs and surrogates. The removal percentages shall be confirmed during the baseline monitoring phase. One example of removal percentages ~~from Drews et al. (2008)~~ for each application scenario and their associated processes (i.e., soil aquifer treatment or RO/AOPs) is presented in Table 76. The established removal percentages for each project shall be used to evaluate treatment effectiveness and operational performance.

4.1.1. Groundwater Recharge ~~Reuse~~ – Surface Application

For groundwater recharge ~~reuse~~ by surface application, the removal percentage shall be determined by comparing the quality of the recycled water applied to a surface spreading area to the quality of groundwater at monitoring wells. The distance between the application site and the monitoring wells shall be no more than the distance the groundwater travels in 30 days downgradient from the application site. The location of the monitoring wells shall be designated by the regional water board in consultation with the State Water Board ~~CDPH~~. The removal percentage shall be adjusted to account for differences in concentrations due to dilution from potable water applied to the

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application site, storm-water applied to the application site, and native groundwater. The removal percentage shall also be adjusted to account for CECs in these waters. The recycled water project proponent or recycled water producer shall submit a proposal to the regional water board and the State Water Board~~CDPH~~ as part of its operation plan on how it will perform this accounting.

4.1.2 Groundwater Recharge Reuse – Subsurface Application

For groundwater recharge reuse using subsurface application, the removal percentage shall be determined by comparing recycled water quality before treatment by RO/AOPs and after treatment prior to release into the aquifer.

Reservoir Water Augmentation

For reservoir water augmentation, the removal percentage shall be determined by comparing recycled water quality before treatment by RO/AOPs and after treatment prior to release into the surface water reservoir.

4.2 Evaluation of Health-Based CEC Results

The recycled water project proponent or recycled water producer shall evaluate health-based CEC monitoring results. To determine the appropriate response actions, the recycled water project proponent or recycled water producer shall compare measured environmental concentrations (MECs) to their respective monitoring trigger levels⁹ (MTLs) listed in Table 76 to determine MEC/MTL ratios. The recycled water project proponent or recycled water producer shall compare the calculated MEC/MTL ratios to the thresholds presented in Table 87 and shall implement the response actions corresponding to the threshold.

For surface application, the results shall be evaluated for groundwater collected from the monitoring wells. For subsurface application and reservoir water augmentation projects, results shall be evaluated for the recycled water released into the aquifer.

⁹ Monitoring Trigger Level (MTL): Health based screening level value for a CEC for a particular water reuse scenario. Recommended MTLs were established in: [Monitoring Strategies for Chemicals Constituents of Emerging Concern \(CECs\) in Recycled Water – Recommendations of a Science Advisory Panel](#), dated ~~April 6, 2018~~ June 25, 2019.

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Table 76: Monitoring Trigger Levels and Example Removal Percentages

Constituent/ Parameter	Relevance/Indicator Type/Surrogate	Monitoring Trigger Level (micrograms/liter) ¹	Example Removal Percentages (%) ²
GROUNDWATER RECHARGE REUSE - SURFACE APPLICATION³			
17β-estradiol	Health	0.0009	-- ⁴
Caffeine	Health & Performance	0.35	>90
1,4-Dioxane	Health	1	-- ⁴
NDMA	Health	0.01	--
NMOR	Health	0.012	--
Triclosan	Health	0.35	--
Gemfibrozil	Performance	--	>90
Iohexol	Performance	--	>90
Iopromide	Performance	--	>90
DEET	Performance	--	>90
Sucralose	Performance	--	<25 ⁵
Sulfamethoxazole	Performance	--	>30
Ammonia	Surrogate	--	>90
TDOC	Surrogate	--	>30
Nitrate	Surrogate	--	>30
Total fluorescence	Surrogate	--	>30
UV Absorbance	Surrogate	--	>30
RESERVOIR WATER AUGMENTATION AND GROUNDWATER RECHARGE REUSE - SUBSURFACE APPLICATION⁶			
17β-estradiol	Health	0.0009	--
Caffeine	Health & Performance	0.35	>90
1,4-Dioxane	Health	1	--
NDMA	Health & Performance	0.01	25-50, >80 ⁷
NMOR	Health	0.012	--
Triclosan	Health	0.35	--
DEET	Performance	--	>90
Sucralose	Performance	--	>90
Sulfamethoxazole	Performance	--	>90
Electrical Conductivity	Surrogate	--	>90
TDOC	Surrogate	--	>90
UV Absorbance	Surrogate	--	>50

1 – Recommended monitoring trigger levels for groundwater recharge reuse and reservoir water augmentation/landscape irrigation applications were established in

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Monitoring Strategies for Chemicals/Constituents of Emerging Concern (CECs) in Recycled Water – Recommendations of a Science Advisory Panel, dated April 6, 2018~~June 25, 2010.~~

- 2 – The removal percentages presented in this table are from work by Drewes et. al. (2008) and provide an example of performance for that specific research. Project specific removal percentages will be developed for each ~~groundwater recharge-reuse~~ project during the initial and baseline monitoring phases.
- 3 – Treatment process: Soil aquifer treatment. The stated removal percentages are examples and need to be finalized during the initial and baseline monitoring phases for a given site.
- 4 – Not applicable
- 5 – Sucralose degrades poorly during soil aquifer treatment. It is included here mainly as a tracer.
- 6 – Treatment process: ~~RO/AOP Reverse osmosis and advanced oxidation process.~~
- 7 – For treatment using RO reverse osmosis, removal percentage is between 25 and 50 percent. For treatment using RO/AOP reverse osmosis and advanced oxidation processes, removal percentage is greater than 80 percent.

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Table 87: MEC/MTL Thresholds and Response Actions

MEC/MTL Threshold	Response Action
If greater than 75 percent of the MEC/MTL ratio results for a CEC are less than or equal to 0.1 during the baseline monitoring phase and/or subsequent monitoring -	A) After completion of the baseline monitoring phase, consider requesting removal of the CEC from the monitoring program.
If MEC/MTL ratio is greater than 0.1 and less than or equal to 1 -	B) Continue to monitor.
If MEC/MTL ratio is greater than 1 and less than or equal to 10 -	C) Check the data. Continue to monitor.
If MEC/MTL ratio is greater than 10 and less than or equal to 100 -	D) <u>Check the data</u> , Resample immediately and analyze to confirm CEC result. Continue to monitor.
If MEC/MTL ratio is greater than 100 -	E) <u>Check the data</u> , Resample immediately and analyze to confirm <u>CEC</u> result. Continue to monitor. Contact the regional water board and <u>the State Water Board</u> CDPH to discuss additional actions. (Additional actions may include, but are not limited to, additional monitoring, toxicological studies, engineering removal studies, modification of facility operation, implementation of a source identification program, and monitoring at additional locations.)

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Evaluation of Bioanalytical Screening Tool Results

The recycled water project proponent or recycled water producer shall evaluate bioanalytical assay monitoring results. To determine the appropriate response actions, the recycled water project proponent or recycled water producer shall compare bioanalytical equivalent concentrations (BEQs) to their respective action levels (ALs) listed in Table 3 to determine BEQ/AL ratios. The recycled water project proponent or recycled water producer shall compare the calculated BEQ/AL ratios to the thresholds presented in Table 4 and shall implement the response actions corresponding to the threshold.

For groundwater recharge - surface application, the results shall be evaluated for groundwater collected from the monitoring wells. For groundwater recharge - subsurface application and reservoir water augmentation projects, results shall be evaluated for the recycled water following treatment prior to release to the aquifer or surface water reservoir.

Table 2: Required Equivalency Agonists and Action Levels for Bioanalytical Screening Tools

<u>Constituent/ Parameter</u>	<u>Equivalency Agonist</u>	<u>Action Level (nanograms/liter)</u>
<u>Estrogen receptor-α (ER-α)</u>	<u>17-beta-estradiol</u>	<u>3.5</u>
<u>Aryl hydrocarbon receptor (AhR)</u>	<u>2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)</u>	<u>0.5</u>

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Table 3: BEQ/AL Thresholds and Response Actions

<u>BEQ/AL Threshold</u>	<u>Response Action</u>
<u>If BEQ/AL ratio is consistently less than 0.1</u>	<u>A) Consider decreasing monitoring frequency or eliminating requirement for inclusion of endpoint</u>
<u>If BEQ/AL ratio is greater than 0.1 and less than or equal to 10</u>	<u>B) Continue to monitor.</u>
<u>If BEQ/AL ratio is greater than 10 and less than or equal to 1000</u>	<p><u>C) Check the data, resample immediately and analyze to confirm bioassay result.</u></p> <p><u>Continue to monitor.</u></p> <p><u>Contact the regional water board and State the Water Board to discuss additional actions.</u></p> <p><u>(Additional actions may include, but are not limited to, targeted analytical chemistry monitoring, increased frequency of bioassay monitoring, and implementation of a source identification program.)</u></p>
<u>If BEQ/AL ratio is greater than 1000</u>	<p><u>D) Check the data, resample immediately and analyze to confirm bioassay result.</u></p> <p><u>Continue to monitor.</u></p> <p><u>Contact the regional water board and the State Water Board to discuss additional actions.</u></p> <p><u>(Additional actions may include, but are not limited to, targeted and/or non-targeted analytical chemistry monitoring, increased frequency of bioassay monitoring, toxicological studies, engineering removal studies, modification of facility operation, implementation of a source identification program, and monitoring at additional locations.)</u></p>

Operational Updates



Yucaipa Valley Water District



Date: July 10, 2018

Prepared By: Mike Kostelecky, Operations Manager

Subject: Status Report for the Tracer Study Performed on the R-13.1 Clearwell at the Yucaipa Valley Regional Water Filtration Facility

Background

The Surface Water Treatment Rule requires a minimum combination of disinfectant dose and contact time to provide inactivation of potential pathogens in drinking water supplies.

The Yucaipa Valley Regional Water Filtration Facility utilizes a six million-gallon clearwell to achieve contact time compliance with the Surface Water Rule Requirements. The clearwell consists of five baffles and has been operating under an industry standard baffling factor.



During the District's 2017 Sanitary Survey, the State Water Resource Control Board, Division of Drinking Water suggested confirmation of the contact time related to the filtration facility to validate the compliance with California Regulations Related to Drinking Water, published September 23, 2016, page 217, which states:



§64651.32. Disinfectant Contact Time. "Disinfectant contact time" means the time in minutes that it takes for water to move from the point of disinfectant application or a previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration is measured. Disinfectant contact time in pipelines is calculated by dividing the internal volume of the pipe by the flow rate through the pipe. Disinfectant contact time within mixing basins and storage reservoirs is determined by tracer studies or an equivalent demonstration to the State Board.

The purpose of this agenda item is to provide an update on the status of the tracer study.



Summary of Current Testing

On August 15, 2017, the Board of Directors authorized a tracer study to be performed at the Yucaipa Valley Water Filtration Facility R-13.1 clearwell by HDR, Incorporated for a sum not to exceed \$37,726 [Director Memorandum No. 17-068]. Maintaining a consistent water level in the clearwell is necessary to maximize accuracy and the original proposed 6 feet water level would not be possible at such high flows. Because of the water level change, additional time was needed resulting in additional sampling. See below for an explanation of the \$4,000 increase received from HDR on June 1, 2018.

The original HDR fee estimate (see attached) for the tracer test was based on the minimum operating level in the finished water storage reservoir of 6 feet. Based on a discussion with District staff, the operating level of the reservoir increased to 10 feet. This nearly doubles the test duration and the number of samples, and therefore, requires additional effort to perform the testing. After evaluating the work done to date and remaining budget available, HDR estimated that they can perform this work with an additional \$4,000.



The study for effluent high flows, 11.5 million gallons per day, was started on Thursday, June 7, 2018. Preliminary results indicate a conservative contact time in excess of 8 hours.

The study for effluent low flows, 6 million gallons per day, was performed on

Monday, June 18, 2018. The Division of Drinking Water staff Andres Aguirre, Amanda Chapman, and Mario Ramirez were on site to overview the tracer protocol and ask any questions. Preliminary results indicate a conservative contact time in excess of 16 hours.

A full report will be provided once the laboratory results are received. Also, this report will be submitted to the State Water Resources Control Board Division of Drinking Water for review and approval.



Date: July 10, 2018

Prepared By: Thaxton Van Belle, Interim Operations Manager
Kevin Lee, Interim Operations Manager

Subject: Status Report on the Replacement of Automatic Transfer Switches with Integrated Power Metering at the Wochholz Regional Water Recycling Facility

The District uses an Automated Transfer Switch to: (1) detect the loss of power from the main electrical power supply (from Southern California Edison); (2) send a signal to start our on-site generator; and (3) transfers the power supply from the on-site generator to maintain electrical service to our treatment processes.

The Wochholz Regional Water Recycling Facility has a total of eight Automatic Transfer Switches throughout the treatment plant, that provides electrical power to multiple transformers.

The ATS located at the Primary Clarifier was one of two remaining from the original treatment plant construction until it recently failed.



Technology has greatly improved allowing for a safer and more compact system with exterior digital controls. While replacing the ATS unit, the District staff opted to include a power monitoring feature. The power monitoring feature will allow us to assign a treatment process specific cost of electricity to the Primary Clarifier Structure. This information will help the District staff improve our overall operational efficiencies.



The District staff will be replacing the last original ATS with this same equipment and then upgrade the newer Automated Transfer Switches throughout the treatment plant to include power monitoring.



Date: July 10, 2018

Prepared By: Kathryn Hallberg, Implementation Manager

Subject: Overview of the Current Microbial Community Analyses at the Wochholz Regional Water Recycling Facility

At the Board Workshop on February 27, 2018 [Workshop Memorandum No. 18-069] DNA sequencing test for wastewater and state project water was discussed. DNA sequencing identifies the microbes and their functions. This information can help the District reduce the need for chemicals and energy, maintain plant stability, increase effluent quality, and increase recovery of nutrients. DNA analyses identify indicator species, to serve as early warning systems for pathogens, and micro-pollutants, as well as allow for control strategies.

The following results were from a sample taken on May 16, 2018. The results are known as a Microbial Community Analysis (MCA), which is essentially a census of the bacteria present in the wastewater system at the Wochholz Regional Water Recycling Facility (WRWRF). MCA identifies the microbes doing the actual work (or causing problems) at the WRWRF. Currently we are collecting samples to create a baseline, which gives an idea of what "normal" looks like for the system. Once a baseline is established, sampling on a quarterly basis is generally sufficient to follow seasonal drifts in the system. However, sampling during an upset can help identify the cause of the upset and potential remedies.

As seen from the results below, the WRWRF system has a highly diverse microbial population (no single organism makes up more than 4% of the sequencing reads). This diversity helps a system degrade a wide variety of influent chemicals and is generally associated with a faster recovery from upset conditions. The charts and graphs below detail the results from the samples taken.



Environmental Genomics™ Report Microbial Community Analysis

Report Date
Prepared By Paul Campbell, PhD

Client/Site	Yucaipa Valley Water District Wastewater 880 West County Line Rd. Yucaipa, CA 92399	Sampler	Lina Robert
Sample Type	MLSS, (4A), AB4, Zone A	Tests Requested	Microbial Community Analysis
Preservation	ESP+		
Sample Date	5/16/18		
Note	Foaming event		

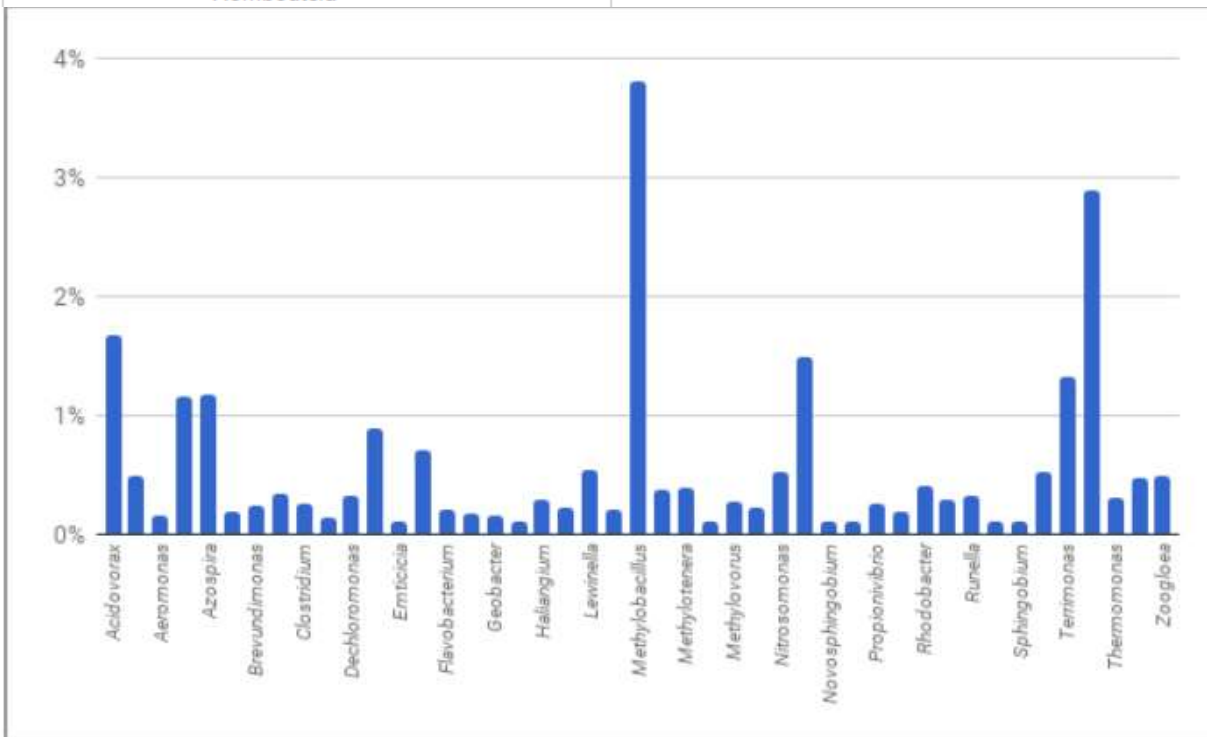
DNA Isolation	Volume	QA/QC
	1 ml	pass

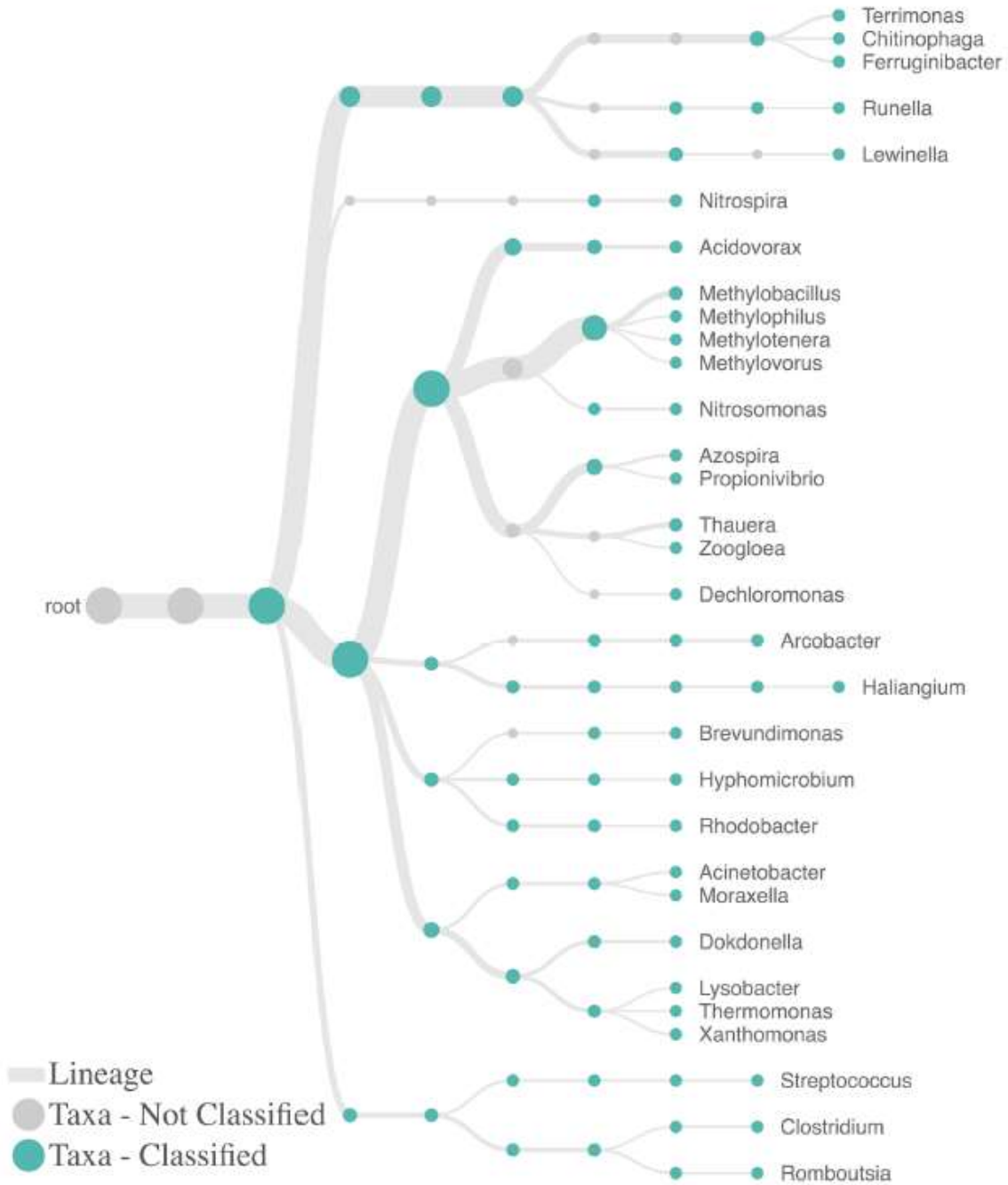
Reads	
Classified	177,087
Unclassified	16,474

Comments

- *Gordonia* (primarily *G. amarae*) is present at 0.1% in the MLSS.
- The AOB + NOB population is ~2%
- Low levels of filaments identified include:
 - Flexibacter*
 - Curvibacter*
 - Tetrasphaera* (*N. limicola* Type II)
 - Trichococcus* (*N. limicola* Type I)
 - Thiothrix*
 - Sphaerotilus*

Rank	Genus	Relative Freq.	Rank	Genus	Relative Freq.
1	<i>Methylobacillus</i>	3.80%	24	<i>Haliangium</i>	0.29%
2	<i>Thauera</i>	2.89%	25	<i>Methylovorus</i>	0.28%
3	<i>Acidovorax</i>	1.68%	26	<i>Propionivibrio</i>	0.26%
4	<i>Nitrospira</i>	1.49%	27	<i>Clostridium</i>	0.26%
5	<i>Terrimonas</i>	1.32%	28	<i>Brevundimonas</i>	0.25%
6	<i>Azospira</i>	1.17%	29	<i>Hyphomicrobium</i>	0.23%
7	<i>Arcobacter</i>	1.16%	30	<i>Moraxella</i>	0.22%
8	<i>Dokdonella</i>	0.90%	31	<i>Lysobacter</i>	0.21%
9	<i>Ferruginibacter</i>	0.71%	32	<i>Flavobacterium</i>	0.20%
10	<i>Lewinella</i>	0.55%	33	<i>Blautia</i>	0.19%
11	<i>Nitrosomonas</i>	0.52%	34	<i>Pseudomonas</i>	0.19%
12	<i>Streptococcus</i>	0.52%	35	<i>Flexibacter</i>	0.17%
13	<i>Acinetobacter</i>	0.49%	36	<i>Geobacter</i>	0.16%
14	<i>Zoogloea</i>	0.49%	37	<i>Aeromonas</i>	0.15%
15	<i>Xanthomonas</i>	0.47%	38	<i>Curvibacter</i>	0.13%
16	<i>Rhodobacter</i>	0.40%	39	<i>Novosphingobium</i>	0.11%
17	<i>Methylotenera</i>	0.39%	40	<i>Methyloversatilis</i>	0.11%
18	<i>Methylophilus</i>	0.38%	41	<i>Pedobacter</i>	0.11%
19	<i>Chitinophaga</i>	0.35%	42	<i>Solitalea</i>	0.10%
20	<i>Dechloromonas</i>	0.33%	43	<i>Sphingobium</i>	0.10%
21	<i>Runella</i>	0.32%	44	<i>Emticicia</i>	0.10%
22	<i>Thermomonas</i>	0.30%	45	<i>Gordonia</i>	0.10%
23	<i>Romboutsia</i>	0.29%			







Environmental Genomics™ Report Microbial Community Analysis

Report Date
Prepared By Paul Campbell, PhD

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Sample Type	MLSS, (1A), AB1, Zone A	Tests Requested	Microbial Community Analysis
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Sample Date	5/16/18		
Note	Foaming event		

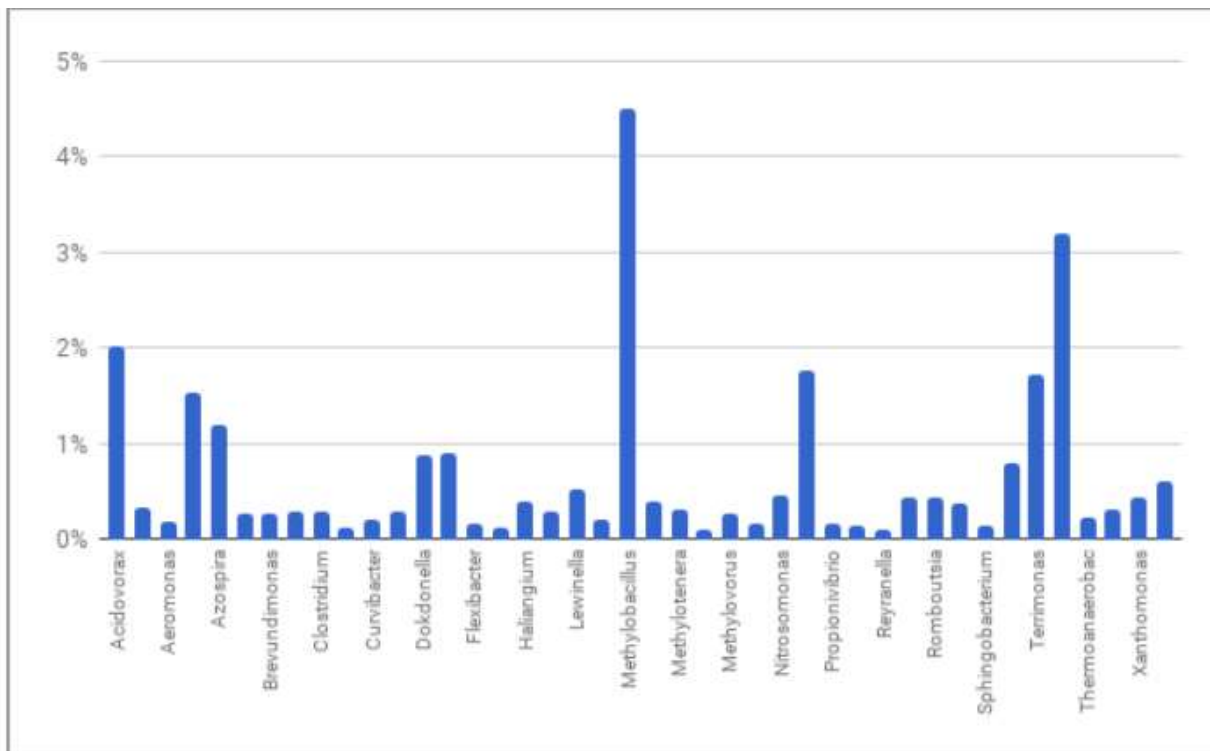
DNA Isolation	Volume	QA/QC
	1 ml	pass

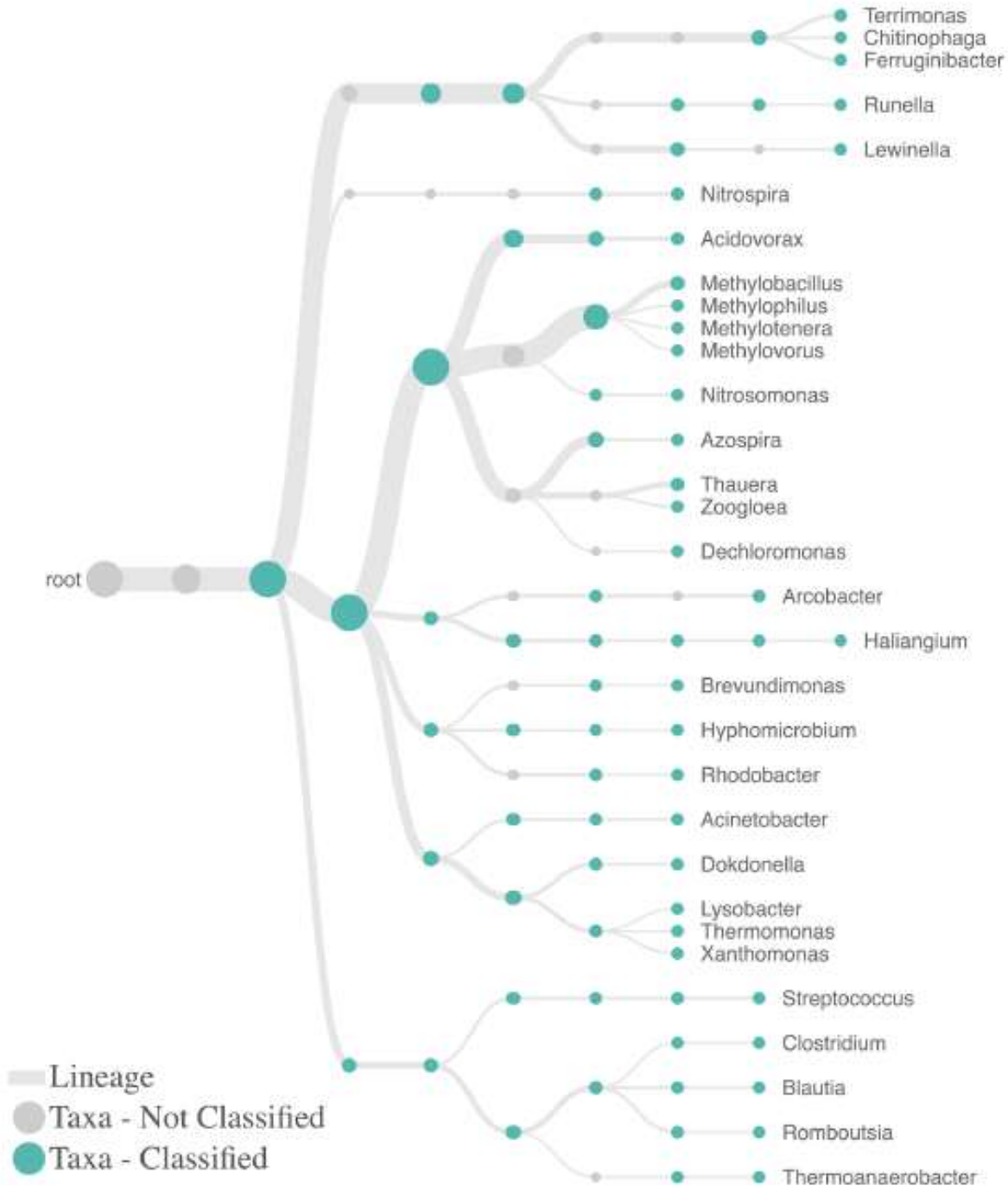
Reads	
Classified	177,087
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 - Flexibacter*
 - Tetrasphaera* (*N. limicola* Type II)
 - Trichococcus* (*N. limicola* Type I)
 - Thiothrix*
 - Sphaerotilus*

Rank	Genus	Relative Freq.	Rank	Genus	Relative Freq.
1	<i>Methylobacillus</i>	4.49%	24	<i>Chitinophaga</i>	0.30%
2	<i>Thauera</i>	3.20%	25	<i>Clostridium</i>	0.30%
3	<i>Acidovorax</i>	2.01%	26	<i>Hyphomicrobium</i>	0.29%
4	<i>Nitrospira</i>	1.77%	27	<i>Blautia</i>	0.27%
5	<i>Terrimonas</i>	1.72%	28	<i>Brevundimonas</i>	0.27%
6	<i>Arcobacter</i>	1.54%	29	<i>Methylovorus</i>	0.26%
7	<i>Azospira</i>	1.20%	30	<i>Thermoanaerobaci</i>	0.23%
8	<i>Ferruginibacter</i>	0.90%	31	<i>Lysobacter</i>	0.21%
9	<i>Dokdonella</i>	0.87%	32	<i>Curvibacter</i>	0.20%
10	<i>Streptococcus</i>	0.80%	33	<i>Aeromonas</i>	0.19%
11	<i>Zoogloea</i>	0.60%	34	<i>Propionivibrio</i>	0.17%
12	<i>Lewinella</i>	0.52%	35	<i>Flexibacter</i>	0.17%
13	<i>Nitrosomonas</i>	0.46%	36	<i>Moraxella</i>	0.16%
14	<i>Rhodobacter</i>	0.44%	37	<i>Pseudomonas</i>	0.15%
15	<i>Xanthomonas</i>	0.44%	38	<i>Sphingobacterium</i>	0.14%
16	<i>Romboutsia</i>	0.43%	39	<i>Comamonas</i>	0.12%
17	<i>Haliangium</i>	0.40%	40	<i>Geobacter</i>	0.12%
18	<i>Methylophilus</i>	0.39%	41	<i>Reyranella</i>	0.11%
19	<i>Runella</i>	0.38%	42	<i>Methyloversatilis</i>	0.11%
20	<i>Acinetobacter</i>	0.35%			
21	<i>Methylotenera</i>	0.32%			
22	<i>Thermomonas</i>	0.31%			
23	<i>Dechloromonas</i>	0.30%			







Environmental Genomics™ Report Microbial Community Analysis

Report Date
Prepared By Paul Campbell, PhD

Client/Site	Yucaipa Valley Water District Wastewater 880 West County Line Rd. Yucaipa, CA 92399	Sampler	Lina Robert
Sample Type	Foam - 4A	Tests Requested	Microbial Community Analysis
Preservation	ESP+		
Sample Date	5/16/18		
Note	Foaming event		

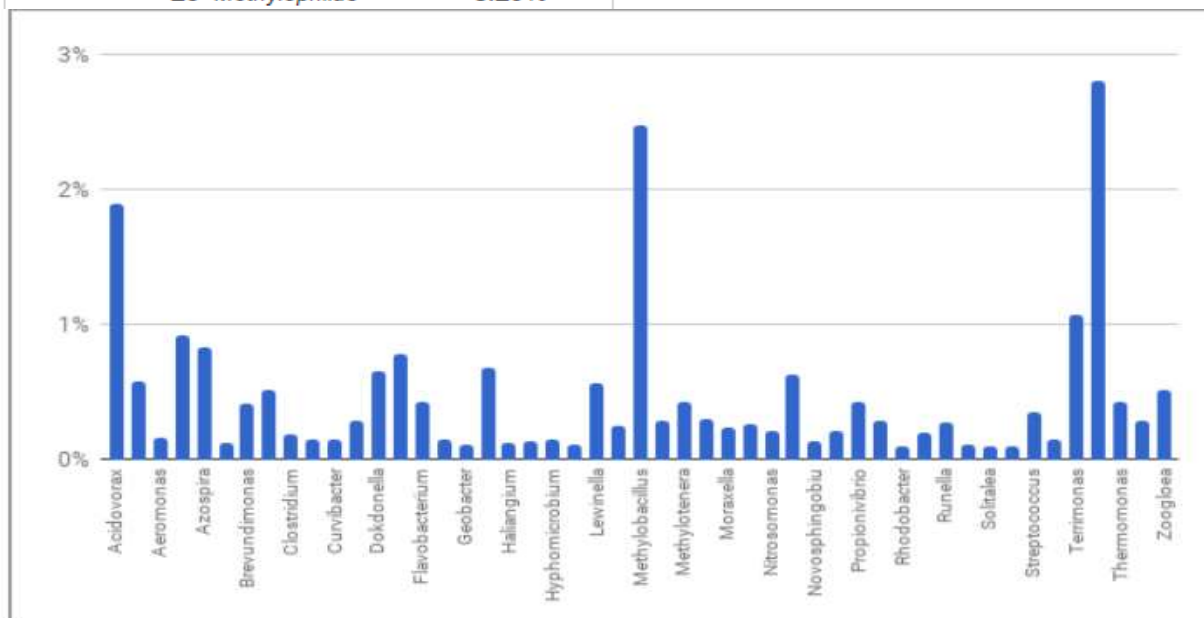
DNA Isolation	Volume	QA/QC
	1 ml	pass

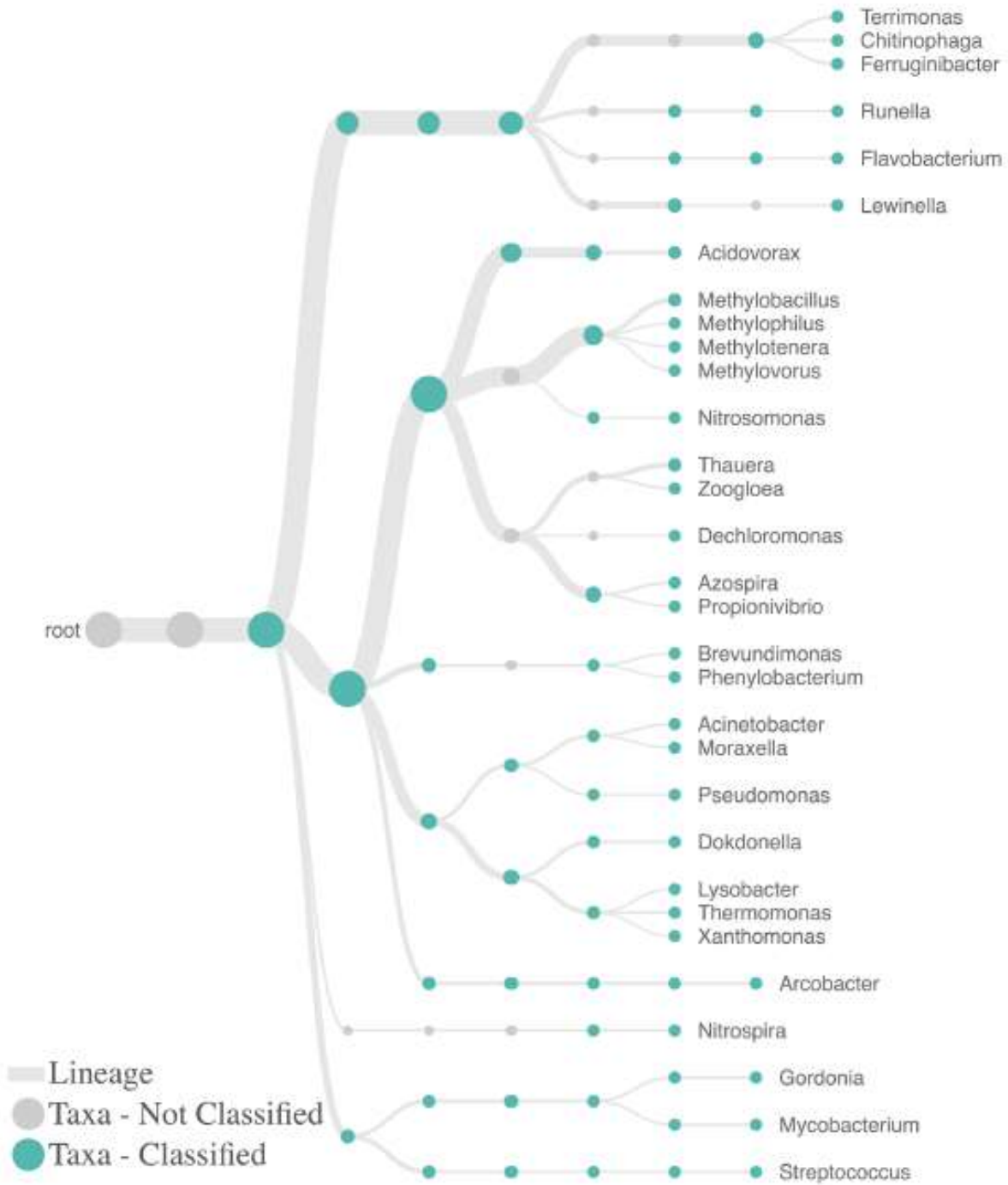
Reads	
Classified	245,884
Unclassified	30,003

Comments

- *Gordonia* (primarily *G. amarae*) is enriched in the foam when compared to the 4A MLSS sample.

Rank	Genus	Relative Freq.	Rank	Genus	Relative Freq.
1	<i>Thauera</i>	2.80%	26	<i>Runella</i>	0.27%
2	<i>Methylobacillus</i>	2.47%	27	<i>Mycobacterium</i>	0.27%
3	<i>Acidovorax</i>	1.89%	28	<i>Lysobacter</i>	0.25%
4	<i>Terrimonas</i>	1.07%	29	<i>Moraxella</i>	0.24%
5	<i>Arcobacter</i>	0.92%	30	<i>Nitrosomonas</i>	0.22%
6	<i>Azospira</i>	0.83%	31	<i>Phenylobacterium</i>	0.21%
7	<i>Ferruginibacter</i>	0.78%	32	<i>Romboutsia</i>	0.21%
8	<i>Gordonia</i>	0.68%	33	<i>Clostridium</i>	0.19%
9	<i>Dokdonella</i>	0.65%	34	<i>Aeromonas</i>	0.16%
10	<i>Nitrospira</i>	0.63%	35	<i>Hyphomicrobium</i>	0.16%
11	<i>Acinetobacter</i>	0.58%	36	<i>Curvibacter</i>	0.15%
12	<i>Lewinella</i>	0.57%	37	<i>Comamonas</i>	0.15%
13	<i>Chitinophaga</i>	0.52%	38	<i>Flexibacter</i>	0.15%
14	<i>Zoogloea</i>	0.51%	39	<i>Taibaiella</i>	0.15%
15	<i>Methylotenera</i>	0.43%	40	<i>Novosphingobium</i>	0.14%
16	<i>Propionivibrio</i>	0.43%	41	<i>Hydrogenophaga</i>	0.13%
17	<i>Flavobacterium</i>	0.42%	42	<i>Haliangium</i>	0.13%
18	<i>Thermomonas</i>	0.42%	43	<i>Blautia</i>	0.13%
19	<i>Brevundimonas</i>	0.41%	44	<i>Lacunisphaera</i>	0.11%
20	<i>Streptococcus</i>	0.35%	45	<i>Simplicispira</i>	0.11%
21	<i>Methylovorus</i>	0.30%	46	<i>Geobacter</i>	0.11%
22	<i>Pseudomonas</i>	0.29%	47	<i>Rhodobacter</i>	0.10%
23	<i>Xanthomonas</i>	0.29%	48	<i>Sphingorhabdus</i>	0.10%
24	<i>Dechloromonas</i>	0.29%	49	<i>Solitalea</i>	0.10%
25	<i>Methylophilus</i>	0.29%			





Capital Improvement Projects



Yucaipa Valley Water District



Date: July 10, 2018

Prepared By: Kevin Lee, Interim Wastewater Manager
Thaxton VanBelle, Interim Wastewater Manager

Subject: Status Report on the Installation of New Mesh Strainers at the Wochholz Regional Water Recycling Facility



Existing strainer upstream of microfiltration membranes

On September 19, 2017, the Board of Directors approved the installation of a bank of ultrafiltration (UF) membranes and a new mesh strainer to test their efficiency and effectiveness compared to the existing microfiltration (MF) membranes at the Wochholz Regional Water Recycling Facility [DM 17-088].

The new mesh strainer was recently installed by Pascal & Ludwig Constructors. The new strainer will protect the ultrafiltration (UF) membranes on Rack 6 which will be changed out to Scinor Ultrafiltration Membranes to gain additional treatment and log removals and test as a potential replacement for the remaining microfiltration (MF) membranes.

The new strainer has a coarse screen and a 200-micron mesh screen with a moving scrubber system which should outperform the original installation of a 320-micron slit wedge wire system.

District staff is anticipating installing the new Scinor ultrafiltration (UF) membranes on Rack 6 on July 31, 2018.



New strainer upstream of future ultrafiltration membranes



Date: July 10, 2018

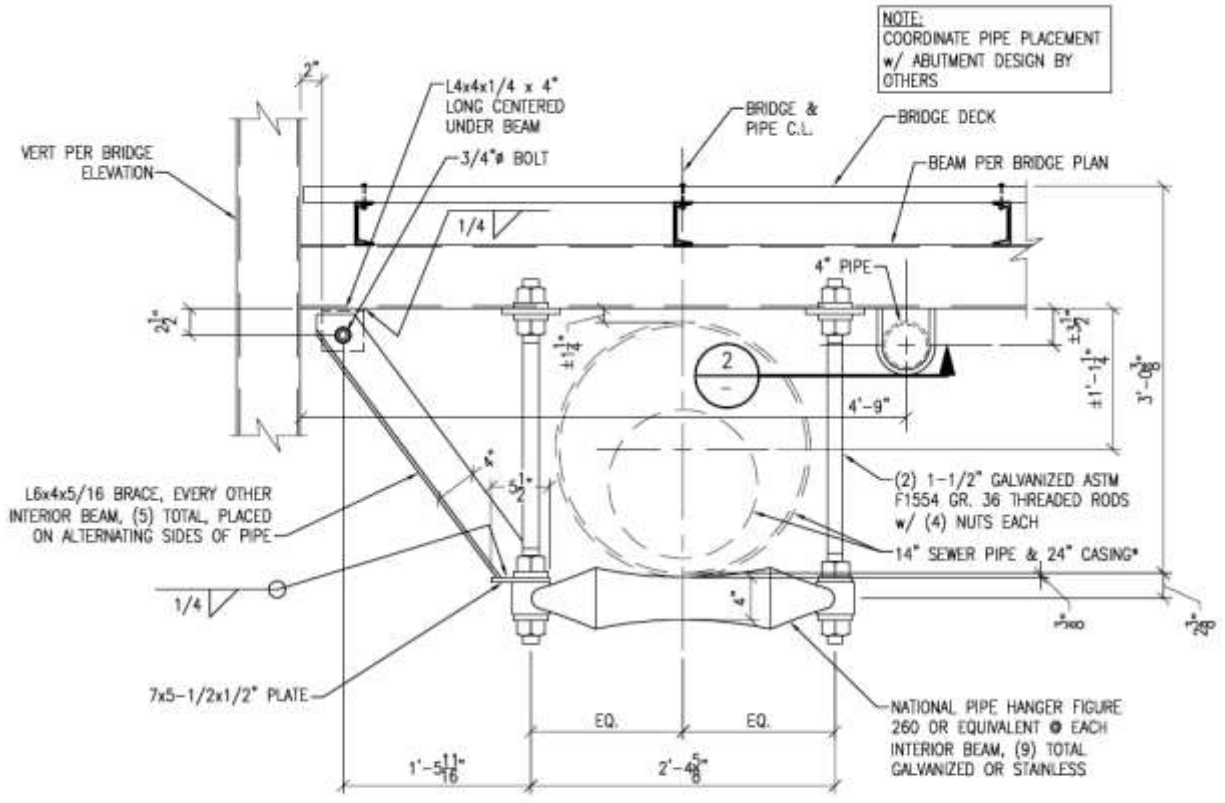
Prepared By: Matthew Porras, Implementation Manager

Subject: Overview of the Sewer Mainline Crossing within the Summerwind Residential Development - Calimesa

In the City of Calimesa, the Summerwind residential development is under construction. As a part of the development, water and wastewater infrastructure are being installed and must traverse the natural landscape in certain areas. In this instance, a small bridge crossing is utilized to suspend the required pipelines as well as provide pedestrian access as part of the integrated trail system. The bridge was fabricated off-site and installed July 2, 2018.

The purpose of this item is informational, and staff will provide future updates as this development continues to move forward.







Date: July 10, 2018

Prepared By: Mike Kostelecky, Operations Manager

Subject: Status Report on the Installation of Hardscape Landscape Material around Reservoir R-13.1 at the Yucaipa Valley Regional Water Filtration Facility

On June 5, 2018, the Board of Directors authorized the installation of hardscape landscaping around Reservoir R-13.1 with Pacific Coast Landscape & Design, Inc. for a sum not to exceed \$39,131.80 [Director Memorandum No. 18-079].



On Monday, June 25, 2018 work was started and was completed by Saturday, June 30, 2018.

District staff provided the necessary information to the San Bernardino Valley Municipal Water District to review and approve a rebate of \$1.00 per square foot of turf removed.

The documentation/ information required:

- Customer name and meter number;
- Site pictures before and after; and
- A final, paid invoice.

Public Policy



Yucaipa Valley Water District



Date: July 10, 2018
From: Joseph Zoba, General Manager
Subject: Discussion Regarding the Development of a Policy Related to Accessory Dwelling Units and Other Multiple Unit Developments

The District staff is in the process of developing a standardized policy for Accessory Dwelling Units (ADUs). At the board workshop on February 27, 2018, the following elements of the policy were discussed:

Single Residential Unit – Same Parcel

- Facility Capacity Charge - Standard Fees Apply
- Monthly Fixed and Variable Water and Sewer Charges - Standard Fees Apply

Single Residential Unit with an Accessory Dwelling Unit - Same Parcel Up to 1,200 Square Feet

- Facility Capacity Charge – No Additional Charge for Accessory Dwelling Unit
- Fixed Monthly Water and Sewer Charges - Standard Fees x 2.0
 - Non-Accessory Dwelling Unit (attached or detached) with a sink, a toilet, and a kitchen - Standard Fees x 2.0
- Variable Monthly Water Fees – Standard Fees with Facility Capacity Charge Element

Two Residential Units – Same Parcel and Accessory Dwelling Units more than 1,200 square feet

- Facility Capacity Charge – Standard Fees Apply x 2.0
- Fixed Monthly Water and Sewer Charges – Standard Fees x 2.0
- Variable Monthly Water Fees – Standard Fees with Facility Capacity Charge Element

Three or more Residential Units and/or Commercial, Industrial, Institutional

- Facility Capacity Charge – Based on Water Supply Fixture Units – Uniform Plumbing Code
- Fixed Monthly Water and Sewer Charges – Standard Fees x Calculated # of EDUs
- Variable Monthly Water Fees – Standard Fees with Facility Capacity Charge Element

These concepts will be discussed at the board workshop to further develop the overall business processes related to accessory dwelling units in the District's service area.

RESOLUTION NO. 2018-xx**A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
SETTING FORTH POLICIES FOR THE CONSTRUCTION OF ACCESSORY
DWELLING UNITS**

WHEREAS, the City of Calimesa and the City of Yucaipa currently regulate the establishment of Accessory Dwelling Units (ADUs); and

WHEREAS, the State of California amended state laws regarding ADUs, effective January 1, 2017, enacting legislation approved by Senate Bill 1069, Assembly Bill 2299, and Assembly Bill 2406; and

WHEREAS, the State of California now regulates ADUs pursuant to Government Code §§ 65852.2 and 65852.22, respectively; and

WHEREAS, the Yucaipa Valley Water District has adopted this Resolution to support the process, code and regulation set forth for the construction of Accessory Dwelling Units consistent with state law.

NOW THEREFORE, the Board of Directors of the Yucaipa Valley Water District does hereby resolve, determine and order as follows:

Section 1. For a parcel that adds an Accessory Dwelling Unit, the Yucaipa Valley Water District shall not charge a Facility Capacity Charge at the time of construction, but will charge the following monthly drinking water, recycled water, and sewer charges as approved by the Board of Directors:

- A. A single residential unit with an Accessory Dwelling Unit (up to 1,200 square feet) on the same parcel shall be charged monthly a factor of 2.0 times the latest fixed monthly drinking water, recycled water, and sewer charges.
- B. A single residential unit with an attached or detached Non-Accessory Dwelling Unit (e.g. casitas) with a sink, a toilet, and a kitchen will be charged a factor of 2.0 times the current fixed monthly drinking water, recycled water, and sewer charges.
- D. The current variable, or consumptive rates for drinking water, recycled water, and/or sewer charges will be billed to the property each month.

Section 2. For a parcel with two residential units, the Yucaipa Valley Water District shall charge the applicable Facility Capacity Charges at the time of construction, and the following monthly drinking water, recycled water, and sewer charges:

- A. Two residential units shall be charged a monthly factor of 2.0 times the latest fixed monthly drinking water, recycled water, and sewer charges.
- B. The current variable, or consumptive rates for drinking water, recycled water, and/or sewer charges in effect will be billed to the property each month.

- C. The billing methodology identified above shall apply to any parcel with more than one water meter for service on the sample parcel, plus costs associated with the installation and maintenance of cross-connection prevention devices.

Section 3. For a parcel that has three or more residential units, commercial, industrial, or institutional units, the Yucaipa Valley Water District shall charge the applicable Facility Capacity Charges based on water and sewer fixture units and/or drainage units as calculated from the Uniform Plumbing Code. The fixed monthly drinking water, recycled water, and sewer charges shall be based on the fixture units and/or drainage units calculated. The current variable, or consumptive rates for drinking water, recycled water, and/or sewer charges in effect will be billed to the property each month.

This Resolution is effective on August 1, 2018.

PASSED AND ADOPTED this 17th day of July 2018.

YUCAIPA VALLEY WATER DISTRICT

Jay Bogh, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager

Development Projects



Yucaipa Valley Water District



Date: July 10, 2018

From: Joseph Zoba, General Manager

Subject: Discussion Regarding the Formation and/or Participation in a Community Facilities District for the Summerwind Project - Calimesa

In 1982, the Mello-Roos Community Facilities Act of 1982 (the “Act”) (Government Code §53311-53368.3) was created to allow any county, city, special district, school district or joint powers authority to establish a Mello-Roos Community Facilities District (a “CFD”) for financing public improvements and services. The services and improvements that Mello-Roos CFDs can finance include streets, water systems, sewer systems and other basic infrastructure, police protection, fire protection, ambulance services, schools, parks, libraries, museums and other cultural facilities. By law, the CFD is also entitled to recover expenses needed to form the CFD and administer the annual special taxes and bonded debt.

In November 2006, the Board of Directors approved a Reimbursement Agreement with LBREP/L-SunCal Summerwind Ranch (attached). Due to the economic downturn, the implementation of the CFD for this project was never completed.

The purpose of this agenda item is to discuss the implementation of a new CFD for the Summerwind project.

REIMBURSEMENT AGREEMENT

This REIMBURSEMENT AGREEMENT (the "Agreement") is made and entered into effective this 15th day of November, 2006 by and between the Yucaipa Valley Water District (the "Water District"), LBREP/L-SunCal Summerwind Ranch, LLC, a Delaware limited liability company ("Summerwind Ranch"), and the City of Calimesa (the "City"). The Water District, Summerwind Ranch and the City are referred to herein, collectively, as the "Parties".

RECITALS:

A. Summerwind Ranch intends to develop the property described and depicted in Exhibit "A" hereto (the "Development") which is located in the City of Calimesa, County of Riverside, State of California, for residential purposes.

B. Summerwind Ranch petitioned the City to form the City of Calimesa Community Facilities District No. 2006-2 (Summerwind Ranch) (the "CFD"), pursuant to the Mello-Roos Community Facilities Act of 1982, as amended (the "Act"), being Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing at Section 53311, of the California Government Code, and to issue bonds on behalf of the CFD, in one or more series (the "Bonds") under the Act for the purpose of financing, among other things, the acquisition and/or construction of various public facilities to be owned and operated by Water District required in connection with the Development as described in Exhibit "B" hereto, which facilities will benefit the Development in whole or in part, including certain public facilities to be constructed and owned and operated by Water District (the "Water Facilities").

C. Summerwind Ranch and Water District have separately entered into a Developer's Agreement providing for Summerwind Ranch's obligations to the Water District concerning the designing, financing, construction, installation, inspection and bonding of the Water Facilities, and that Developer's Agreement will take precedent over any provisions contained in this Reimbursement Agreement concerning those Water Facilities.

D. Summerwind Ranch is willing to advance the costs of designing, financing, constructing, installing, inspecting and bonding (collectively, the "Construction Costs") of the Water Facilities and Summerwind Ranch expects to be reimbursed for such advances from the proceeds of the Bonds from the City.

E. The Water District, Summerwind Ranch and the City now desire to enter into this Agreement to memorialize their understanding with respect to such advances and the use of a portion of the proceeds of the Bonds to reimburse Summerwind Ranch for advances of funds made to Water District. The Parties agree that under no set of circumstances shall the Water District be under any obligation to expend its own funds for the acquisition and/or construction of such Water Facilities, or for the reimbursement of the advances.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and mutual covenants set forth below, the Parties hereto do hereby agree as follows:

Section 1. Recitals. Each of the above recitals is incorporated herein and is true and correct.

Section 2. Advances to Water District and Reimbursement by City. Summerwind Ranch has agreed to make advances, from time-to-time, to the District for the Construction Costs of the Water Facilities. The Parties hereto contemplate that such Water Facilities will be financed with the proceeds of the Bonds, the issuance of which shall be at the sole discretion of the City. Only to the extent proceeds of the Bonds are available, and only upon receipt of sufficient evidence that such deposit(s) has been made to the Water District, the City shall pay to Summerwind Ranch an amount equal to the advances made by Summerwind Ranch to the Water District pursuant to this Agreement; provided, however, that the Water District, Summerwind Ranch and the City shall have entered into a joint community facilities agreement pursuant to the Act. In the event that such Bond proceeds do not become available there shall be no liability on the part of the Water District for the advances made by Summerwind Ranch to the Water District. The Water District shall have no obligation to expend its own funds for the acquisition and/or construction of the Water Facilities. Summerwind Ranch understands and agrees that the Water District shall have no obligation to utilize the advances provided by Summerwind Ranch under this Agreement until such time as the Water District has received 100% of all of the construction costs for the Water Facilities as contemplated by the Developer's Agreement referenced in Recital C.

Section 3. Developer's Agreement. This Agreement is intended merely to provide the terms and conditions under which Summerwind Ranch provides advances for the Construction Costs for the Water Facilities and the reimbursement of such advances by the City. The Water District and Summerwind Ranch agree and understand that this Agreement is subordinate to, at least as between the Water District and the Summerwind Ranch, the Developer's Agreement entered into by and between the Water District and Summerwind Ranch.

Section 4. Governing Law. This Agreement and any dispute arising hereunder shall be governed by and interpreted in accordance with the laws of the State of California.

Section 5. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which shall constitute but one instrument.

[Signature page follows]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the day and year first written above.

CITY OF CALIMESA

By: John M. Chlebick
Its: John Chlebick, Mayor

ATTEST:

[Signature]
City Clerk

YUCAIPA VALLEY WATER DISTRICT

By: [Signature]
Its: Board President

ATTEST:

[Signature]
General Manager

SUMMERWIND RANCH, LLC

LBREP/L-SunCal Summerwind Ranch, LLC
a Delaware limited liability company
("SunCal")

By: [Signature]
Its: General Counsel

By: _____
Its: _____

EXHIBIT A

DESCRIPTION OF PROPERTY

PARCEL B OF CERTIFICATE OF COMPLIANCE FOR LOT LINE ADJUSTMENT NO. "LLA 05-001" DATED APRIL 22, 2005 AND RECORDED APRIL 26, 2005 AS INSTRUMENT NO. 2005-0324927 IN THE CITY OF CALIMESA, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PARCEL A OF CERTIFICATE OF COMPLIANCE FOR LOT LINE ADJUSTMENT NO. "LLA 05-002" DATED APRIL 22, 2005 AND RECORDED APRIL 26, 2005 AS INSTRUMENT NO. 2005-0324926 IN THE CITY OF CALIMESA, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

EXHIBIT B**WATER FACILITIES DESCRIPTIONS***Potable Water and Recycled Water Mainlines:*

- Off-site Zone 12 potable waterline (from R-11.4 site to freeway crossing)
- Off-site Zone 12 recycled waterline (from freeway crossing to PRV)
- Off-site Zone 11 potable waterline (from R-11.4 site to freeway crossing)
- Off-site Zone 11 recycled waterline (from R-11.4 site to freeway crossing)
- Off-site Zone 12 potable waterline over-sizing share "upstream" from the system connection at Singleton Road & Singleton Canyon Rd.
- Bore & Jack Crossings of Interstate 10 freeway (Zone 12 potable water; Zone 11 potable water; Zone 12 recycled water; Zone 11 recycled water)
- Zone 12 & 11 potable waterlines connecting from the freeway crossings to PM33105
- PRV Station for recycled water Zone 12 to Zone 11
- Zone 12 potable water pipelines, fittings, valves, and appurtenances within Summerwind Ranch
- Zone 11 potable water pipelines, fittings, valves, and appurtenances within Summerwind Ranch
- Zone 10 potable water pipelines, fittings, valves, and appurtenances within Summerwind Ranch
- Zone 12 recycled water pipelines, fittings, valves, and appurtenances within Summerwind Ranch
- Zone 11 recycled water pipelines, fittings, valves, and appurtenances within Summerwind Ranch
- Zone 10 recycled water pipelines, fittings, valves, and appurtenances within Summerwind Ranch
- Design, plan-check, staking, soils engineering, inspection, permits, construction administration, and other similar costs related directly to the above listed items.

Potable Water and Recycled Water Facilities:

- YVWD potable water reservoir R-12.4 (including site, site improvements, tank appurtenances, etc)
- YVWD potable water reservoir R-11.4 (including site, site improvements, tank appurtenances, etc)
- YVWD recycled water reservoir R-11.4 (including site, site improvements, tank appurtenances, etc.)
- Off-site Zone 11 potable water well, including pump facilities, standby generator, site improvements, and all appurtenances.
- Zone 10 potable water reservoir (including site, site improvements, tank appurtenances, etc)
- Zone 10 recycled water reservoir (including site, site improvements, tank appurtenances, etc)
- Zone 9 recycled water pipeline connecting to the Wochholz Water Reclamation Facility
- Zone 10 to Zone 11 recycled water pump station (including site, site improvements, tank appurtenances, etc)
- Zone 9 recycled water reservoir (including site, site improvements, tank appurtenances, etc)
- Zone 9 to Zone 10 recycled water pump station (including site, site improvements, tank appurtenances, etc)

Wastewater Infrastructure:

- Sewer lines within Summerwind Ranch - 8-inch and larger lines where they are in collector and larger streets, or where they serve as a backbone system conveying flows from more than one tract
- Bridge over El Casco Creek to carry sewer line
- Lift Station (#6) to pump sewage flows from PM33105 to YVWD LS#2
- Force main from Lift Station (#6) to LS#2
- Lift Station along Street "C", at low point of Summerwind Ranch
- Force-main along Street "C", Singleton Road, Roberts Road
- Lift Station along Singleton Road

- Force-main from Lift Station along Singleton Road to LS #6 (Phase 1)
- Bore and Jack crossing of I-10 Freeway
- Various upgrades to existing downstream YVWD sewer facilities, including: LS #2, LS #4, gravity lines & force-mains between LS #2 and the existing Wochholz Treatment Plant
- Other alternate lift stations and force-mains (TBD) in lieu of, or in addition to the above listed facilities
- Design, plan-check, staking, soils engineering, inspection, permits, construction administration, and other similar costs related directly to the above listed items.
- The design, construction and any costs directly related to the Sewer Treatment Plant (Oak Valley Water Reclamation Facility), including design, the site, site improvements, and all facilities contained therein, and all directly related costs.
- In the event that no sewer treatment plant is constructed, the conveyance system of sewer trunks, lift stations, and force-mains that would convey flows to the Wochholz Water Reclamation Facility

Potable Water Facilities Capacity Charges (Pursuant to Resolution 07-2007, or latest version):

- Yucaipa Valley Regional Water Filtration Facility - Debt Service for Phase I Construction and Land, Design, Engineering Fees and Phase II and Phase III
- Non-Potable System
- Booster Pumping Plants
- Pipeline Facilities
- Water Storage Reservoirs

Non-Potable Water Facilities Capacity Charges (Pursuant to Resolution 07-2007, or latest version):

- Non-Potable System
- Booster Pumping Plants
- Pipeline Facilities
- Water Storage Reservoirs

Wastewater Facilities Capacity Charges (Pursuant to Resolution 07-2007, or latest version):

- Wastewater Treatment Facilities – Debt Service for Existing WWTP Expansion and Upgrade & Future Wastewater Treatment Expansion
- Sewer Interceptors
- Lift Stations
- Effluent Disposal Facilities
- Salt Mitigation Facilities



Date: July 10, 2018

From: Matthew Porras, Management Analyst

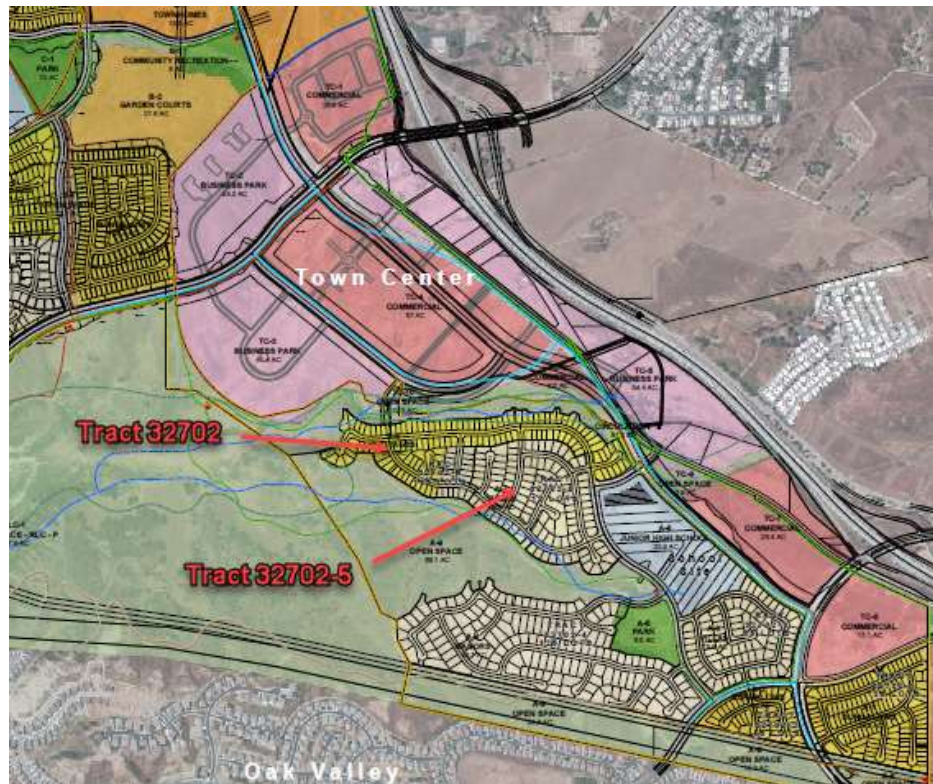
Subject: Overview of a Proposed Development Agreement with Lennar Homes for the Summerwind Development - Calimesa

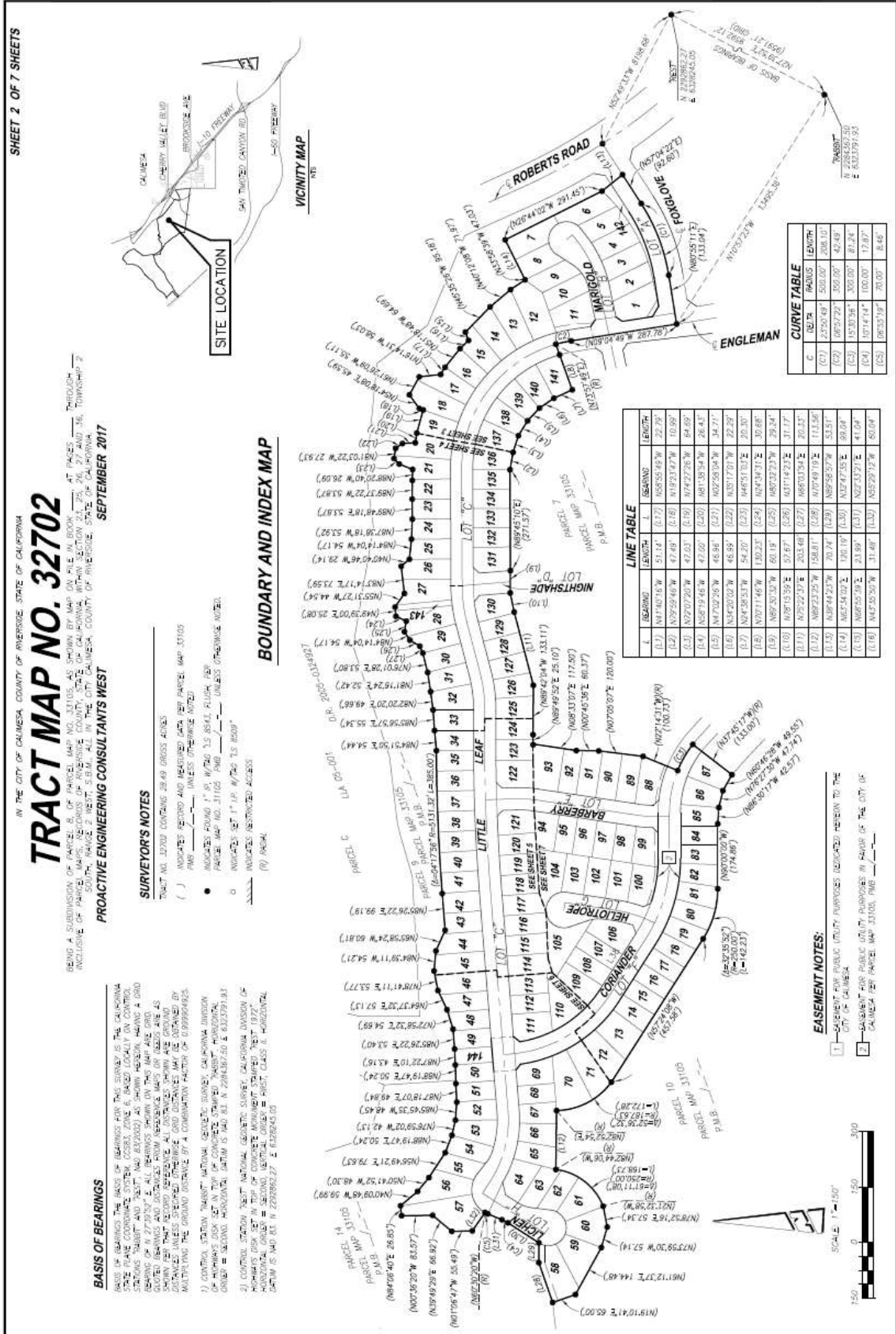
In the City of Calimesa, the Summerwind residential development is underway with ‘backbone’ infrastructure and grading improvements. The first home builder, Lennar Homes of California, Inc., has purchased Tract 32702 and Tract 32702-5. Lennar is currently working on installing utilities and preparing the house pads. Tract 32702 will have 141 units and Tract 32702-5 will have 105 units totaling 246 units between the two tracts.

At the board meeting on March 20, 2018, the Board of Directors accepted 90.94 acre feet of overlying water rights for this development [Director Memorandum No. 18-047]. Information about the acquisition of water rights was presented as part of the Beaumont Basin Watermaster meeting on March 28, 2018.

These tracts are within the Districts service area and will receive drinking water, recycled water, and sewer service. The homes will be dual plumbed, utilizing recycled water for front and backyard irrigation. This development will be required to contribute to the sewer mainline deficiency fee currently collected in the Calimesa area.

The draft Development Agreement will be distributed and some of the language is contingent on the discussion of forming a Community Facilities District for this property.





Administrative Items



Yucaipa Valley Water District



Date: July 10, 2018
From: Allison M. Edmisten, Chief Financial Officer
 Peggy Little, Administrative Supervisor
Subject: Presentation of the Unaudited Financial Report for the Period Ending on June 30, 2018

The following unaudited financial report has been prepared by the Administrative Department for your review. The report has been divided into five sections to clearly disseminate information pertaining to the financial status of the District. Please remember that the following financial information has not been audited.

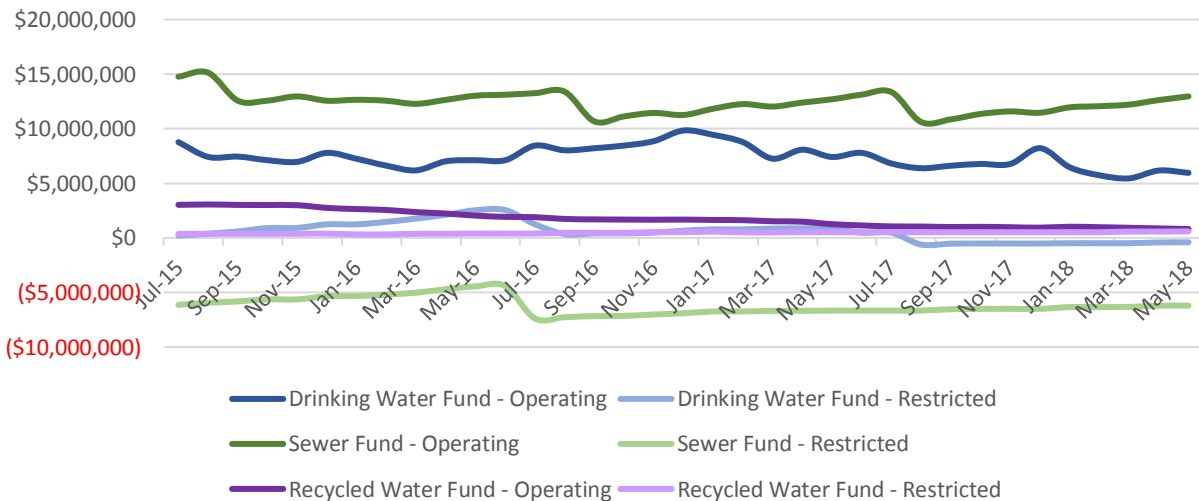
Cash Fund Balance and Cash Flow Reports

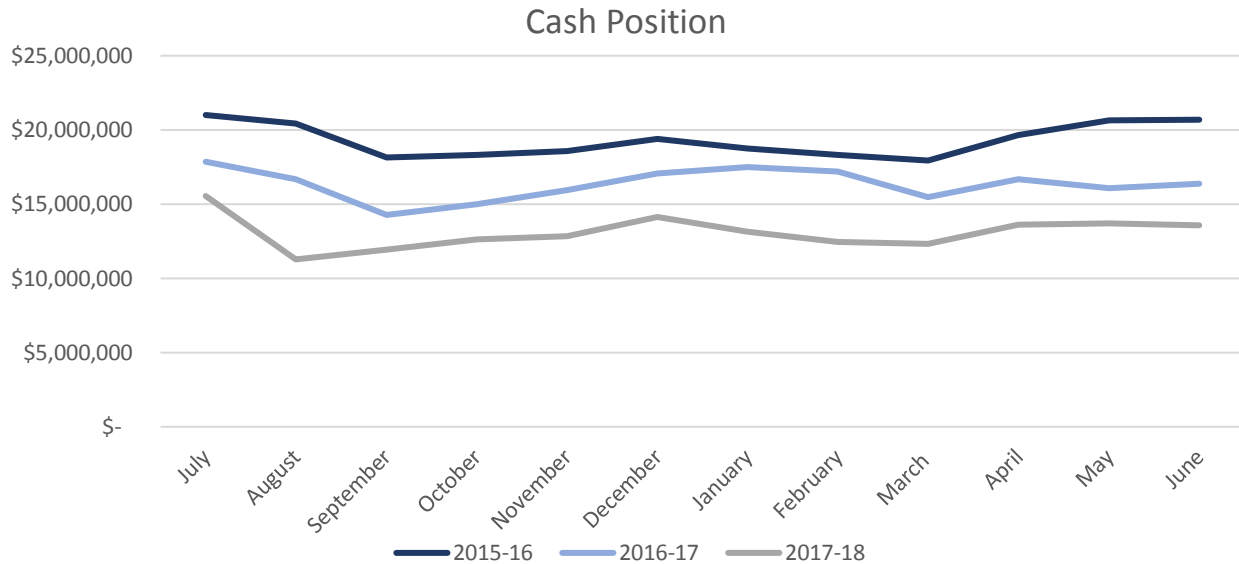
[Detailed information can be found on page 7 to 8 of 25]

The Cash Fund Balance Report provides a summary of how the total amount of funds maintained by financial institutions is distributed throughout the enterprise and non-enterprise funds of the District. A summary of the report is as follows:

Fund Source	Operating Funds	Restricted Funds	Total Funds
Water Division	\$ 5,673,997.52	\$ (349,877.00)	\$ 5,324,120.52
Sewer Division	\$ 13,234,598.80	\$ (6,378,312.51)	\$ 6,856,286.29
Recycled Water Division	\$ 780,998.40	\$ 607,498.41	\$ 1,388,496.81
Total	\$ 19,689,594.72	\$ (6,120,691.10)	\$ 13,568,903.62

Fund Balance





Most of the funds reflected in the Cash Fund Balance Report are designated for specific purposes and are therefore restricted, either by law or by District policy.

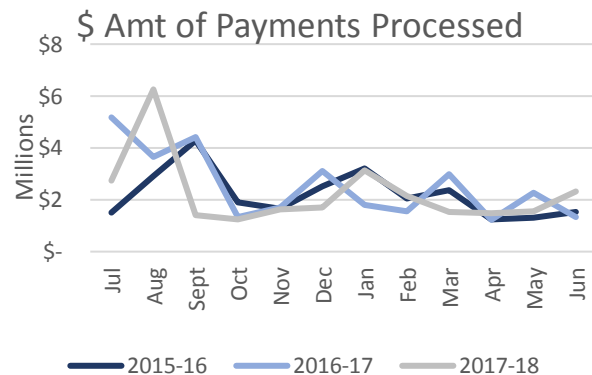
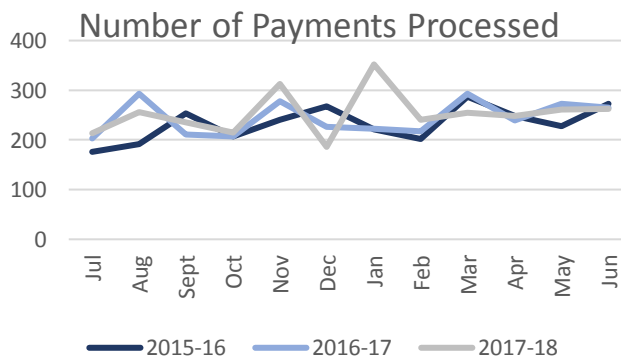
The Cash Flow Report provides a list of the debt service payment due dates and amounts as well as the cash flow requirements for debt service for each month of the fiscal year.

Cash Disbursement Report

[Detailed information can be found on pages 9 to 14 of 25]

The cash disbursement report lists each check and electronic payment processed during the month of June 2018. All payments are reviewed by District staff for accuracy and completeness, checks are usually signed by the General Manager and one Director, but may be signed by two Directors. The Chief Financial Officer will make any check, payment, invoice or supporting documentation available for review to any board member upon request.

	Number Processed	Amount Processed
Checks	253	\$ 2,081,720.57
Electronic Payments	9	\$ 236,682.60
Total	262	\$ 2,318,403.17



Financial Account Information

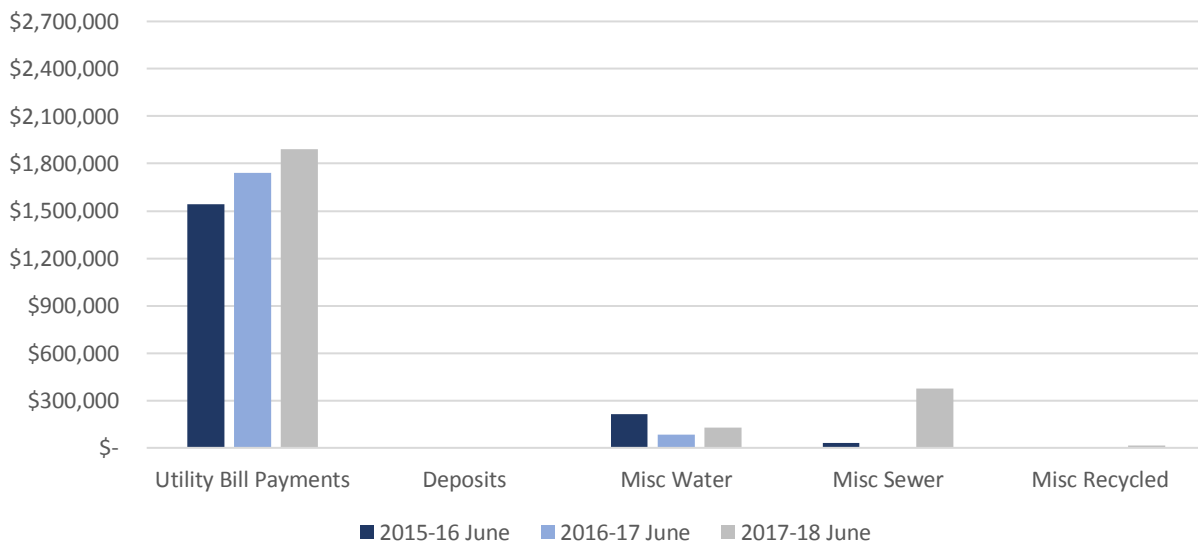
The District currently deposits all revenue received into the Deposit Checking account. The General Checking account is used as a sole processing account for all District checks and electronic payroll. The Investment Checking account is used for the purchase and redemption of US treasury notes and bills and for the transfer of LAIF funds. The US treasury notes and bills are booked at cost.

The LAIF investment account is a pooled money account administered by the State of California. Additional information on the LAIF account is provided below in the investment summary report.

Monthly Revenue Allocation:

Funding Source	Total
Utility Bill Payments	\$ 1,889,188.78
Deposits	\$ 0
Misc. Water Related Activities	\$ 129,304.00
Misc. Sewer Related Activities	\$ 375,146.37
Misc. Recycled Related Activities	\$ 16,460.04
Total	\$ 2,410,099.19

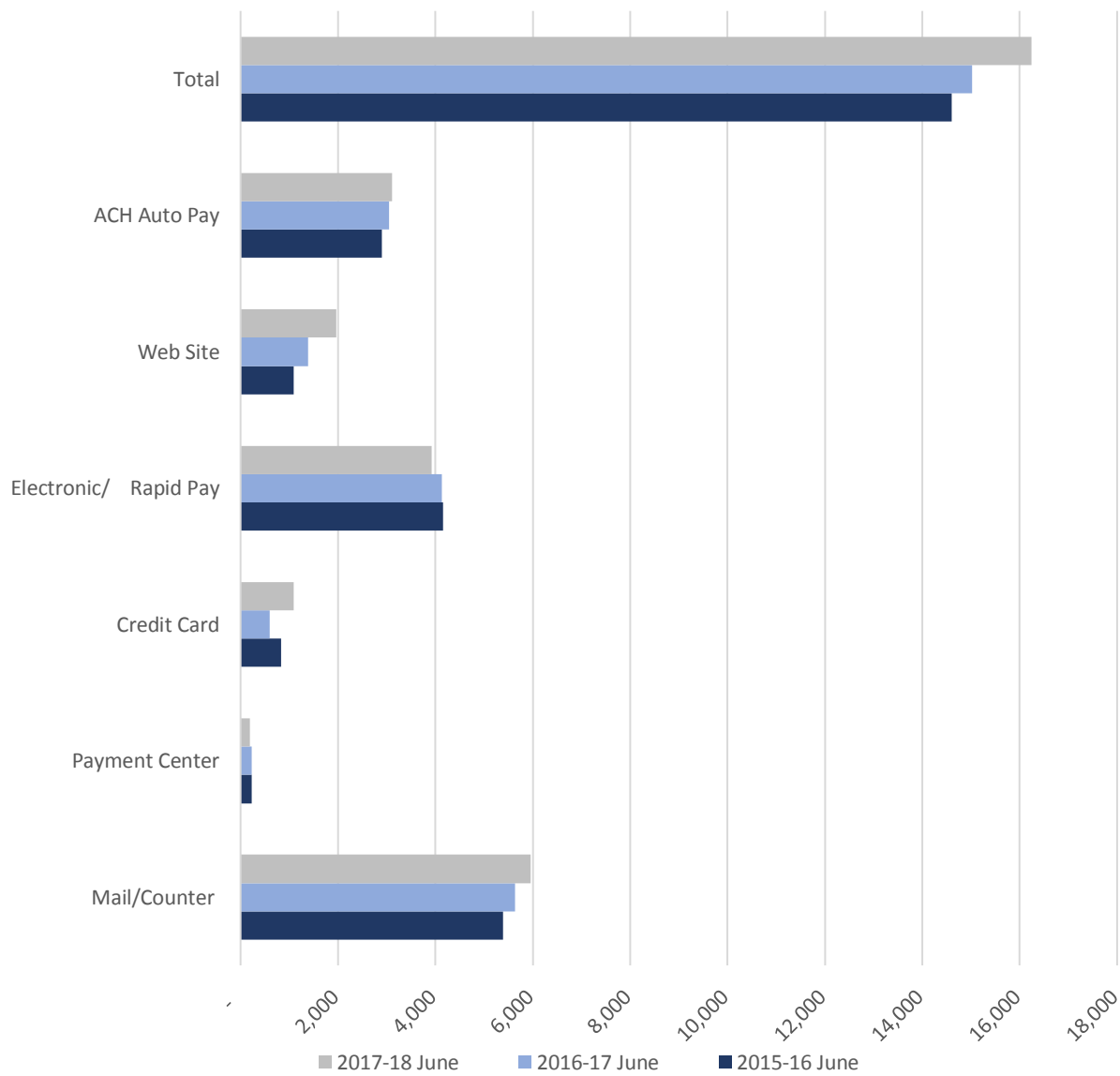
Monthly Revenue Allocation



Summary of Utility Bill Payments:

Payment Method	Number of Payments	% of Total Received
Mail/Counter	5,953	36.66%
Payment Center	197	1.21%
Credit Card	1,087	6.69%
Electronic Rapid Pay	3,921	24.15%
Web Site	1,964	12.10%
ACH Auto Pay	3,115	19.18%
Total	16,237	100.00%

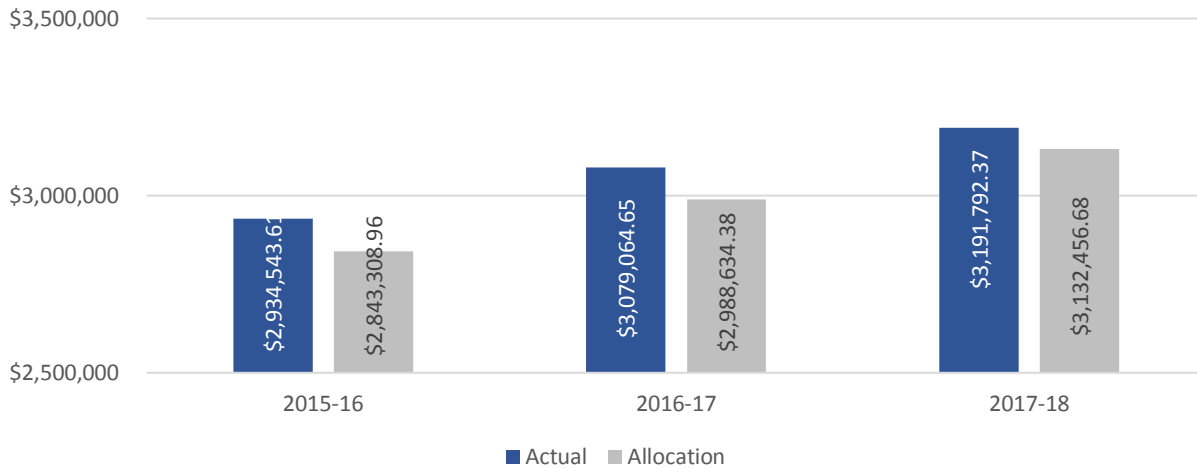
Type of Payments



Summary of Property Tax Revenue:

Current Month	Year-to-Date	Allocation Amount*	Percentage
Property Taxes	\$3,191,792.37	\$ 3,132,456.68	101.89%

Property Taxes - Actual vs. Allocation



Investment Summary

[Detailed information can be found on pages 15 to 16 of 25]

The investment summary report illustrates the District's investments in US treasury notes and bills in addition to the investments held by the Local Agency Investment Fund or LAIF. The yields for the treasury notes and bills are provided for each individual transaction. The historical annual yield for funds invested with LAIF is also provided.

Separate pooled money investment reports prepared by the State of California are maintained by the District and available for review.

Investment Policy Disclosure - The District is currently compliant with the portfolio of its Investment Policy and State law. The District is using Sandy Gage with Merrill Lynch Wealth Management (Bank of America Corporation) for Treasury investments. The District expects to meet its expenditure requirements for the next six months.

Fiscal Year 2017-18 Detail Budget Status

[Detailed information can be found on pages 17 to 25 of 25]

The revenue and expense budget status for the 2017-18 Fiscal Year is provided for your review.

Questions or Comments

If you have any questions about a particular budget account, please do not hesitate to contact the Chief Financial Officer directly. If you need additional information, the members of the Administrative Department would be happy to provide you with any detailed information you may desire.

Summary of Revenue Budget As of June 30, 2018 (90% of Budget Cycle)				
Division	Current Month	Year-to-Date	Budget Amount	Percentage
Water	\$ 812,537	\$ 12,262,379	\$ 13,936,171	87.99%
Sewer	\$ 960,923	\$ 11,166,912	\$ 12,135,640	92.02%
Recycled Water	\$ 45,255	\$ 639,856	\$ 813,795	78.63%
District Revenue	\$ 1,818,715	\$ 24,069,147	\$ 26,885,606	89.52%

Summary of Water Budget vs. Expenses As of June 30, 2018 (90% of Budget Cycle)				
Department	Current Month	Year-to-Date	Budget Amount	Percentage
Water Resources	\$ 312,459	\$ 5,273,023	\$ 5,370,600	98.18%
Public Works	\$ 352,471	\$ 2,793,347	\$ 2,550,488	109.52%
Administration	\$ 302,071	\$ 3,840,078	\$ 3,719,418	103.24%
Long Term Debt	\$ -	\$ 2,293,913	\$ 2,294,665	99.97%
Asset Acquisition	\$ -	\$ -	\$ -	0.00%
TOTAL	\$ 967,001	\$ 14,200,361	\$ 13,935,171	101.90%

Summary of Sewer Budget vs. Expenses As of June 30, 2018 (90% of Budget Cycle)				
Department	Current Month	Year-to-Date	Budget Amount	Percentage
Treatment	\$ 243,269	\$ 4,000,540	\$ 3,930,743	101.78%
Administration	\$ 248,484	\$ 3,256,913	\$ 3,246,153	100.33%
Environmental Control	\$ 78,492	\$ 1,023,805	\$ 1,124,463	91.05%
Long Term Debt	\$ -	\$ 3,833,694	\$ 3,834,281	99.98%
Asset Acquisition	\$ -	\$ -	\$ -	0.00%
TOTAL	\$ 570,245	\$ 12,114,952	\$ 12,135,640	99.83%

Summary of Recycled Water Budget vs. Expenses As of June 30, 2018 (90% of Budget Cycle)				
Department	Current Month	Year-to-Date	Budget Amount	Percentage
Administration	\$ 91,342	\$ 947,896	\$ 813,795	116.48%
TOTAL	\$ 91,342	\$ 947,896	\$ 813,795	116.48%

District Expenses	\$ 1,628,588	\$ 27,263,209	\$ 26,884,606	101.41%
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Note: Budget amounts for certain categories were updated in November and April as a result of the budget adjustments that were approved by the Board.

Cash Fund Balance Report - June 2018

Water Division		GL#	Balance
Restricted	*ID 1 Construction Funds	02-10216	\$ 293,145.85
	*ID 2 Construction Funds	02-10217	\$ 80,409.31
	*FCC - Debt Service YVRWFF Phase I	02-10401	\$ (3,507,947.23)
	*FCC - Future YVRWFF Phase II & III	02-10403	\$ 430,930.53
	*FCC - Recycled System	02-10410	\$ (847,809.26)
	*FCC - Booster Pumping Plants	02-10411	\$ 707,418.74
	*FCC - Pipeline Facilities	02-10412	\$ 165,800.49
	*FCC - Water Storage Reservoirs	02-10413	\$ 2,328,174.57
Operating	Depreciation Reserves	02-10310	\$ 609,271.14
	Infrastructure Reserves	02-10311	\$ 3,922,713.00
	Sustainability Fund	02-10313	\$ 121,783.86
	Rate Stabilization Fund	02-10314	\$ 500,209.14
	Imported Water Fund - MUNI	02-10315	\$ 497,821.01
	Imported Water Fund - SGPWA	02-10316	\$ 784,709.72
	Operating Funds:		\$ (762,510.35)
Total Water Division			\$ 5,324,120.52

Sewer Division		GL#	Balance
Restricted	*SRF Reserve Fund - Brineline	03-10218	\$ 637,449.00
	*SRF Reserve Fund - WISE	03-10219	\$ 184,928.00
	*SRF Reserve Fund - R 10.3	03-10220	\$ 51,531.00
	*SRF Reserve Fund - Crow St	03-10221	\$ 19,255.00
	*FCC - Debt Service WWTP Expansion & Upgrade	03-10405	\$ 1,981,426.60
	*FCC - Future WWTP Expansion	03-10407	\$ 1,516,660.45
	*FCC - Sewer Interceptors	03-10415	\$ (747,516.79)
	*FCC - Lift Stations	03-10416	\$ 374,008.37
	*FCC - Effluent Disposal Facilities	03-10417	\$ (1,573,873.49)
	*FCC - Salt Mitigation Facilities	03-10418	\$ (8,822,180.65)
Operating	Project Fund - Encumbered	03-10215	\$ 276,000.00
	Depreciation Reserves	03-10310	\$ 3,796,542.87
	Infrastructure Reserves	03-10311	\$ 5,311,300.00
	Rate Stabilization Fund	03-10314	\$ 1,464,394.90
	Operating Funds:		\$ 2,386,361.03
Total Wastewater Division			\$ 6,856,286.29

Recycled Water Division		GL#	Balance
Restricted	*FCC - Recycled System	04-10410	\$ 72,385.42
	*FCC - Booster Pumping Plants	04-10411	\$ 9,604.74
	*FCC - Pipeline Facilities	04-10412	\$ 262,543.84
	*FCC - Water Storage Reservoirs	04-10413	\$ 262,964.41
Operating	Project Fund - Encumbered	04-10215	\$ -
	Depreciation Reserves	04-10310	\$ 36,148.01
	Infrastructure Reserves	04-10311	\$ 277,492.31
	Operating Funds:		\$ 467,358.08
Total Recycled Water Division			\$ 1,388,496.81

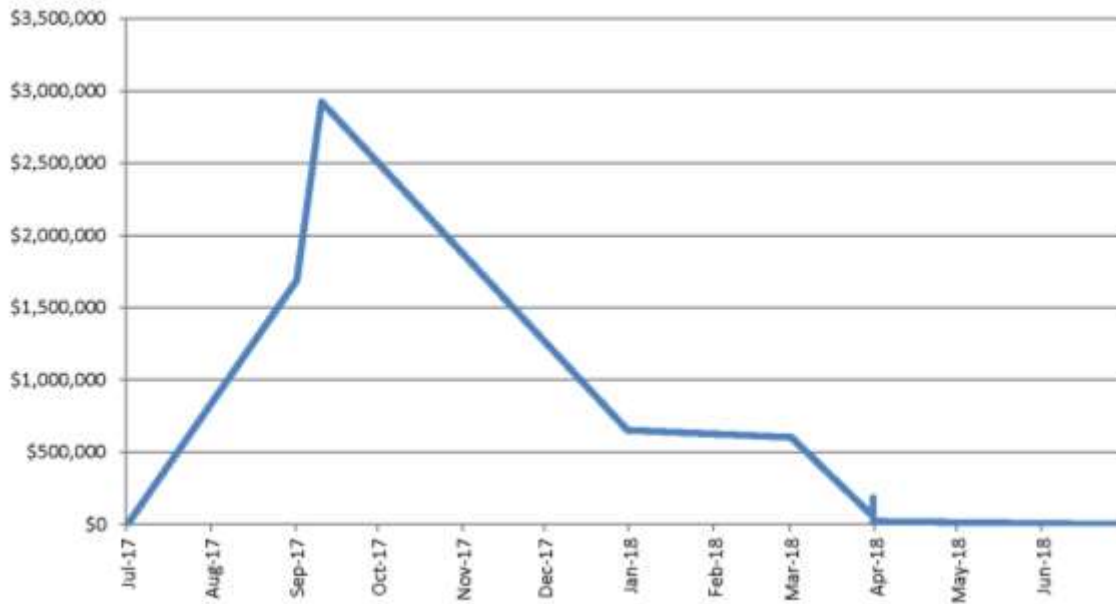
DISTRICT TOTAL \$ 13,568,903.62

*=Restricted Funds

Cash Flow Report for Fiscal Year 2017-18

Financial Obligations for Fiscal Year 2017-18				
Due Date	Fund	Description	Term of Obligation	Amount
9/1/2017	Water	2015A Bond Payment - YVRWFF	2015-2034	\$ 1,690,106.25
9/10/2017	Sewer	SRF Payment - WRWRF	2009-2028	\$ 2,923,668.75
12/31/2017	Sewer	SRF Payment - Yucaipa Regional Brineline	2013-2032	\$ 652,249.39
3/1/2018	Water	2015A Bond Payment - YVRWFF	2015-2034	\$ 603,806.25
3/31/2018	Sewer	SRF Payment - Recycled Reservoir R-10.3	2014-2033	\$ 54,243.03
3/31/2018	Sewer	SRF Payment - Desalination at WRWRF	2014-2033	\$ 186,470.11
3/31/2018	Sewer	SRF Payment - Crow Street/Recycled Booster B-12.1	2016-2035	\$ 21,247.48
Total				\$ 6,131,791.26

Payment Schedule and Cash Flow Requirements for Fiscal Year 2017-18



Checks and Electronic Payments - June 2018

<u>Check Date</u>	<u>Check Number</u>	<u>Name</u>	<u>Check Amount</u>
6/4/2018	31957	Ameripride Uniform Services	\$ 628.69
6/4/2018	31958	Aster Bio, Inc.	\$ 1,425.00
6/4/2018	31959	BSK Associates	\$ 1,705.00
6/4/2018	31960	Crider Public Relations, Inc.	\$ 510.00
6/4/2018	31961	First American Data Tree, LLC	\$ 50.00
6/4/2018	31962	Larry Cross	\$ 1,700.00
6/4/2018	31963	House Of Quality, Parts Plus	\$ 1,280.00
6/4/2018	31964	Michael Lee Hunter	\$ 496.72
6/4/2018	31965	JB Paving & Engineering, Inc.	\$ 17,300.00
6/4/2018	31966	Raiset R. Santana and Adriana	\$ 40.50
6/4/2018	31967	MBC Applied Environmental Scie	\$ 1,350.00
6/4/2018	31968	NetComp Technologies, Inc.	\$ 7,262.75
6/4/2018	31969	North Fork Water Company	\$ 753.40
6/4/2018	31970	Office Solutions Business Prod	\$ 444.91
6/4/2018	31971	Page Locksmith	\$ 75.43
6/4/2018	31972	Pro-Pipe & Supply, Inc.	\$ 6.31
6/4/2018	31973	Redlands Ford	\$ 1,346.17
6/4/2018	31974	San Bdno. Valley Muni. Water D	\$ 91,249.94
6/4/2018	31975	Spectrum Business	\$ 3,668.00
6/4/2018	31976	Kirk S. Cannon	\$ 1,993.50
6/4/2018	31977	The Gas Company	\$ 412.88
6/4/2018	31978	Vortex Industries. Inc.	\$ 967.50
6/4/2018	31979	Kenneth Carnes	\$ 1,189.68
6/4/2018	31980	Yucaipa Disposal, Inc.	\$ 1,544.81
6/4/2018	31981	Yucaipa Valley Chamber Of Comm	\$ 20.00
6/4/2018	31982	All American Sewer Tools	\$ 1,957.83
6/4/2018	31983	Avista Technologies, Inc.	\$ 14,913.14
6/4/2018	31984	Brenntag Pacific, Inc	\$ 24,202.64
6/4/2018	31985	Charles P. Crowley Company, In	\$ 3,654.84
6/4/2018	31986	Crown Ace Hardware - Yucaipa	\$ 1,998.93
6/4/2018	31987	VOID CHECK	\$ -
6/4/2018	31988	JW D'Angelo Co.	\$ 2,553.44
6/4/2018	31989	Hach Company	\$ 1,024.08
6/4/2018	31990	Home Depot U.S.A. Inc	\$ 791.04
6/4/2018	31991	Industrial Safety Supply Corp	\$ 45.31
6/4/2018	31992	Inland Water Works Supply Co.	\$ 1,633.50
6/4/2018	31993	Lowe's Companies, Inc.	\$ 494.28
6/4/2018	31994	Nuckles Oil Company, Inc.	\$ 989.89
6/4/2018	31995	BlueTarp Financial, Inc.	\$ 432.53
6/4/2018	31996	Odyssey Power Corporation	\$ 3,240.00
6/4/2018	31997	Patton Sales Corporation	\$ 394.30
6/4/2018	31998	Polydyne Inc.	\$ 2,949.12
6/4/2018	31999	Sinclair Rock and Sand Inc.	\$ 4,650.00
6/4/2018	32000	HD Supply Facilities Maintenanc	\$ 97.78
6/4/2018	32001	GABRIEL, HANI	\$ 1,193.64
6/4/2018	32002	CWEA-TCP (OAKPORT ST.)	\$ 85.00
6/8/2018	32003	James Rowell	\$ 440.00

Checks and Electronic Payments - June 2018

<u>Check Date</u>	<u>Check Number</u>	<u>Name</u>	<u>Check Amount</u>
6/8/2018	32004	PAYROLL CHECK	\$ 2,223.81
6/8/2018	32005	PAYROLL CHECK	\$ 582.97
6/8/2018	32006	WageWorks, Inc.	\$ 1,483.43
6/8/2018	32007	IBEW Local 1436	\$ 725.00
6/8/2018	32008	California State Disbursement	\$ 115.38
6/8/2018	32009	California State Disbursement	\$ 397.38
6/8/2018	32010	Department of the Treasury - I	\$ 175.00
6/8/2018	32011	Tom Shalhoub	\$ 53.90
6/8/2018	32012	Matthew Vara	\$ 300.00
6/8/2018	32013	Robert Mendez	\$ 300.00
6/11/2018	32014	State Water Resources Control	\$ 60.00
6/11/2018	32015	Luke's Transmission Inc.	\$ 15.00
6/11/2018	32016	Ameripride Uniform Services	\$ 625.88
6/11/2018	32017	Aqua-Metric Sales Company	\$ 18,125.00
6/11/2018	32018	John F. Simister	\$ 262.47
6/11/2018	32019	Balco Holdings Inc.	\$ 211.00
6/11/2018	32020	BSK Associates	\$ 365.00
6/11/2018	32021	C & B Crushing, Inc.	\$ 60.00
6/11/2018	32022	Cal's Towing	\$ 50.00
6/11/2018	32023	Victor James Valenti	\$ 4,216.69
6/11/2018	32024	Coverall North America, Inc.	\$ 1,021.00
6/11/2018	32025	David Sunden	\$ 195.50
6/11/2018	32026	Frontier Communications	\$ 148.41
6/11/2018	32027	G&G Environmental Compliance, I	\$ 4,990.06
6/11/2018	32028	InfoSend, Inc.	\$ 3,436.95
6/11/2018	32029	JB Paving & Engineering, Inc.	\$ 9,880.00
6/11/2018	32030	Raiset R. Santana and Adriana	\$ 113.30
6/11/2018	32031	Konica Minolta Business Soluti	\$ 845.65
6/11/2018	32032	Carlos Murillo	\$ 20.00
6/11/2018	32033	Clement John Grieco III	\$ 2,655.72
6/11/2018	32034	John Deere Financial f.s.b.	\$ 193.87
6/11/2018	32035	Q Versa, LLC	\$ 28,186.81
6/11/2018	32036	Quinn Company	\$ 13,880.85
6/11/2018	32037	San Gorgonio Pass Water Agency	\$ 19,507.17
6/11/2018	32038	Association of San Bernardino	\$ 96.00
6/11/2018	32039	Angel Martin	\$ 320.00
6/11/2018	32040	Underground Service Alert Of S	\$ 344.95
6/11/2018	32041	Yucaipa Valley Water District	\$ 23,188.77
6/11/2018	32042	Belnick Retail, LLC	\$ 4,704.46
6/11/2018	32043	Brenntag Pacific, Inc	\$ 12,029.76
6/11/2018	32044	Mar-Lyn Builders, Inc.	\$ 646.50
6/11/2018	32045	Grainger	\$ 4,813.02
6/11/2018	32046	Hasa, Inc.	\$ 3,822.02
6/11/2018	32047	Hemet Valley Tool Inc.	\$ 683.67
6/11/2018	32048	Inland Water Works Supply Co.	\$ 15,386.70
6/11/2018	32049	King Lee Chemical, Co.	\$ 16,783.14
6/11/2018	32050	Medical Biowaste Solutions. In	\$ 2,530.00

Checks and Electronic Payments - June 2018

<u>Check Date</u>	<u>Check Number</u>	<u>Name</u>	<u>Check Amount</u>
6/11/2018	32051	Nuckles Oil Company, Inc.	\$ 3,050.49
6/11/2018	32052	Nalco Company	\$ 7,745.85
6/11/2018	32053	National Business Furniture LL	\$ 4,493.75
6/11/2018	32054	Office Solutions Business Prod	\$ 413.66
6/11/2018	32055	Uline, Inc.	\$ 7,535.02
6/11/2018	32056	Cobb's Printing, LLC	\$ 80.81
6/11/2018	32057	Standard Insurance Company	\$ 1,764.72
6/11/2018	32058	Western Dental Services, Inc.	\$ 203.54
6/11/2018	32059	Berkshire Hathaway Homestate C	\$ 11,243.89
6/11/2018	32060	Standard Insurance Vision Plan	\$ 639.32
6/11/2018	32061	MetLife Small Business Center	\$ 147.22
6/11/2018	32062	Blue Shield of California	\$ 1,911.40
6/11/2018	32063	Nippon Life Insurance Co. of A	\$ 2,226.27
6/11/2018	32064	Christopher Parker	\$ 300.00
6/11/2018	32065	Marcus Almanza	\$ 300.00
6/11/2018	32066	Kelly Hamilton	\$ 300.00
6/11/2018	32067	Alejandro Salinas	\$ 300.00
6/11/2018	32068	Charles Thomas	\$ 300.00
6/18/2018	32069	Delta Partners, LLC	\$ 7,500.00
6/18/2018	32070	Dudek & Associates, Inc	\$ 40,469.59
6/18/2018	32071	One Stop Landscape Supply Inc	\$ 21,494.00
6/18/2018	32072	Platinum Advisors, LLC	\$ 5,000.00
6/18/2018	32073	Ruth Villalobos & Associates,	\$ 21,204.19
6/18/2018	32074	David L. Wysocki	\$ 3,600.00
6/18/2018	32075	State Water Resources Control	\$ 60.00
6/18/2018	32076	California Water Environment A	\$ 180.00
6/18/2018	32077	Ward & Ward	\$ 35.00
6/18/2018	32078	VOID CHECK	\$ -
6/18/2018	32079	Ameripride Uniform Services	\$ 778.44
6/18/2018	32080	AT&T Mobility	\$ 1,686.01
6/18/2018	32081	John F. Simister	\$ 106.63
6/18/2018	32082	Carl Opsahl	\$ 716.13
6/18/2018	32083	Central Communications	\$ 437.21
6/18/2018	32084	Cliff's Pest Control, Inc.	\$ 115.00
6/18/2018	32085	Clinical Laboratory of San Ber	\$ 12,355.00
6/18/2018	32086	Corelogic, Inc.	\$ 330.00
6/18/2018	32087	Evoqua Water Technologies LLC	\$ 1,932.41
6/18/2018	32088	Harper & Associates Eng., Inc.	\$ 4,800.00
6/18/2018	32089	Nagem, Inc.	\$ 5,324.05
6/18/2018	32090	NetComp Technologies, Inc.	\$ 1,910.00
6/18/2018	32091	Pacific Coast Landscape & Desi	\$ 6,935.00
6/18/2018	32092	Quinn Company	\$ 81,828.23
6/18/2018	32093	Red Alert Special Couriers	\$ 344.26
6/18/2018	32094	Antonio T. Paredes	\$ 10,000.00
6/18/2018	32095	SB CNTY-Fire Protection Distri	\$ 1,323.85
6/18/2018	32096	San Bernardino County	\$ 500.00
6/18/2018	32097	Smarthire	\$ 1,327.45

Checks and Electronic Payments - June 2018

<u>Check Date</u>	<u>Check Number</u>	<u>Name</u>	<u>Check Amount</u>
6/18/2018	32098	Spectrum Business	\$ 2,749.00
6/18/2018	32099	All American Sewer Tools	\$ 910.49
6/18/2018	32100	Armorcast Products Company	\$ 19,395.00
6/18/2018	32101	Brenntag Pacific, Inc	\$ 14,573.05
6/18/2018	32102	Cortech Engineering	\$ 5,472.65
6/18/2018	32103	Mar-Lyn Builders, Inc.	\$ 247.83
6/18/2018	32104	Fastenal Company	\$ 1,922.57
6/18/2018	32105	Grainger	\$ 1,778.05
6/18/2018	32106	Harrington Ind. Plastic, LLC	\$ 1,339.75
6/18/2018	32107	Industrial Safety Supply Corp	\$ 186.37
6/18/2018	32108	Inland Water Works Supply Co.	\$ 6,590.04
6/18/2018	32109	Nuckles Oil Company, Inc.	\$ 4,622.94
6/18/2018	32110	Pro-Pipe & Supply, Inc.	\$ 308.88
6/18/2018	32111	JR Simplot Company	\$ 452.55
6/18/2018	32112	Kirk S. Cannon	\$ 29,325.00
6/18/2018	32113	Wilson Bohannan Company	\$ 2,371.93
6/18/2018	32114	Xgraphix LLC	\$ 1,296.00
6/18/2018	32115	HOOSIER, KATHLEEN	\$ 160.00
6/18/2018	32116	MUNSON, JEREMY	\$ 42.46
6/18/2018	32117	ARAGON, LYDIA & CARL	\$ 114.75
6/18/2018	32118	WHITT, GEORGETTE	\$ 70.02
6/22/2018	32119	Kyle Rose	\$ 300.00
6/22/2018	32120	Ronald Pue	\$ 300.00
6/22/2018	32121	Austin DeSalliers	\$ 300.00
6/22/2018	32122	Johnny Shackelford	\$ 300.00
6/22/2018	32123	Christopher Reeves	\$ 300.00
6/22/2018	32124	PAYROLL CHECK	\$ 2,223.81
6/22/2018	32125	WageWorks, Inc.	\$ 1,483.43
6/22/2018	32126	California State Disbursement	\$ 115.38
6/22/2018	32127	California State Disbursement	\$ 397.38
6/22/2018	32128	Department of the Treasury - I	\$ 175.00
6/28/2018	32129	Atkinson, Andelson, Loya, Ruud	\$ 39,037.25
6/28/2018	32130	California Water Environment A	\$ 180.00
6/28/2018	32131	Gilbert A. Santacruz	\$ 99.00
6/28/2018	32132	Aaron Blose	\$ 140.00
6/28/2018	32133	Dhaval Kothari	\$ 350.00
6/28/2018	32134	Luke's Transmission Inc.	\$ 572.34
6/28/2018	32135	Ameripride Uniform Services	\$ 872.32
6/28/2018	32136	Cal's Towing	\$ 50.00
6/28/2018	32137	Coverall North America, Inc.	\$ 697.50
6/28/2018	32138	ECORP Consulting, Inc.	\$ 370.00
6/28/2018	32139	Frontier Communications	\$ 150.01
6/28/2018	32140	Gerold Construction Inc.	\$ 26,131.00
6/28/2018	32141	InfoSend, Inc.	\$ 6,814.47
6/28/2018	32142	Nicholas C. Hendrickson	\$ 173.36
6/28/2018	32143	Krieger & Stewart	\$ 21,489.36
6/28/2018	32144	LUZ Investment Corp.	\$ 787.27

Checks and Electronic Payments - June 2018

<u>Check Date</u>	<u>Check Number</u>	<u>Name</u>	<u>Check Amount</u>
6/28/2018	32145	Nagem, Inc.	\$ 3,230.00
6/28/2018	32146	National Business Furniture LL	\$ 2,674.34
6/28/2018	32147	NetComp Technologies, Inc.	\$ 2,550.00
6/28/2018	32148	Vortex Industries. Inc.	\$ 320.00
6/28/2018	32149	Zerion Software, Inc.	\$ 115.07
6/28/2018	32150	Aqua-Metric Sales Company	\$ 85,705.31
6/28/2018	32151	Atlas Copco Compressors, LLC	\$ 2,425.38
6/28/2018	32152	BofA Credit Card	\$ 9,572.29
6/28/2018	32153	Brenntag Pacific, Inc	\$ 5,254.99
6/28/2018	32154	Charles P. Crowley Company, In	\$ 2,820.35
6/28/2018	32155	CS Associated Municipal Sale C	\$ 1,242.76
6/28/2018	32156	JW D'Angelo Co.	\$ 9,041.51
6/28/2018	32157	FMB Truck Outfitters, Inc.	\$ 79.41
6/28/2018	32158	Grainger	\$ 460.40
6/28/2018	32159	Hach Company	\$ 883.64
6/28/2018	32160	Hasa, Inc.	\$ 7,747.98
6/28/2018	32161	Nuckles Oil Company, Inc.	\$ 2,088.48
6/28/2018	32162	Paxxo, Inc.	\$ 2,529.60
6/28/2018	32163	Pro-Pipe & Supply, Inc.	\$ 1,202.01
6/28/2018	32164	UPS Store#1504/ Mail Boxes Etc	\$ 166.50
6/28/2018	32165	Christopher Parker	\$ 747.36
6/28/2018	32166	Addiction Medicine Consultants	\$ 284.00
6/28/2018	32167	State Water Resources Control	\$ 55.00
6/28/2018	32168	ADS, LLC	\$ 4,275.00
6/28/2018	32169	Ralph C. Casas	\$ 92.45
6/28/2018	32170	Aqua-Metric Sales Company	\$ 6,000.00
6/28/2018	32171	CDW LLC	\$ 1,710.21
6/28/2018	32172	Center Electric Services, Inc.	\$ 520.00
6/28/2018	32173	Crown Ace Hardware - Yucaipa	\$ 709.97
6/28/2018	32174	Eco Pro Environmental Services	\$ 85.00
6/28/2018	32175	ETA Advertising, Inc.	\$ 18,402.00
6/28/2018	32176	House Of Quality, Parts Plus	\$ 949.24
6/28/2018	32177	Krieger & Stewart	\$ 75,023.43
6/28/2018	32178	MBC Applied Environmental Scie	\$ 1,350.00
6/28/2018	32179	San Bdn. Valley Muni. Water D	\$ 555,000.00
6/28/2018	32180	SCE Rosemead	\$ 250,512.08
6/28/2018	32181	U.S. Telepacific Corp	\$ 2,657.37
6/28/2018	32182	Airgas, Inc.	\$ 430.26
6/28/2018	32183	Brenntag Pacific, Inc	\$ 5,253.15
6/28/2018	32184	California Water Technologies,	\$ 4,668.86
6/28/2018	32185	Evans-Hydro Inc.	\$ 13,681.33
6/28/2018	32186	Grainger	\$ 3,427.71
6/28/2018	32187	Hach Company	\$ 843.06
6/28/2018	32188	Hemet Valley Tool Inc.	\$ 159.47
6/28/2018	32189	Home Depot U.S.A. Inc	\$ 600.50
6/28/2018	32190	Inland Water Works Supply Co.	\$ 8,344.16
6/28/2018	32191	NCL Of Wisconsin Inc	\$ 502.18

Checks and Electronic Payments - June 2018

<u>Check Date</u>	<u>Check Number</u>	<u>Name</u>	<u>Check Amount</u>
6/28/2018	32192	Sinclair Rock and Sand Inc.	\$ 4,950.00
6/28/2018	32193	Donald Kent Stone	\$ 1,080.00
6/28/2018	32194	US Bank	\$ 3,417.02
6/28/2018	32195	Dhaval Kothari	\$ 65.00
6/28/2018	32196	American Family Life Assurance	\$ 3,529.28
6/28/2018	32197	Cobb's Printing, LLC	\$ 80.81
6/28/2018	32198	YVWD-Petty Cash	\$ 303.72
6/28/2018	32199	US Healthworks Medical Group,	\$ 271.43
6/28/2018	32200	WageWorks, Inc.	\$ 207.50
6/28/2018	32201	Ashley Gibson	\$ 548.11
6/28/2018	32202	Taylor Corporation	\$ 379.24
6/28/2018	32203	Caselle, Inc.	\$ 79,258.00
6/28/2018	32204	G&G Environmental Compliance, I	\$ 2,202.00
6/28/2018	32205	The Gas Company	\$ 89.77
6/28/2018	32206	Brenntag Pacific, Inc	\$ 4,996.01
6/28/2018	32207	Grainger	\$ 1,643.73
6/28/2018	32208	Industrial Safety Supply Corp	\$ 434.75
6/28/2018	32209	Polydyne Inc.	\$ 2,949.12
			<u>\$ 2,081,720.57</u>
6/8/2018	electronic pmt	IRS - PAYROLL TAXES	\$ 51,081.34
6/8/2018	electronic pmt	CA-EDD	\$ 9,050.10
6/8/2018	electronic pmt	CA-PERS Supplemental Income 45	\$ 29,307.08
6/8/2018	electronic pmt	Public Employees' Retirement S	\$ 25,162.37
6/22/2018	electronic pmt	IRS - PAYROLL TAXES	\$ 59,676.31
6/22/2018	electronic pmt	CA-EDD	\$ 11,189.21
6/22/2018	electronic pmt	VOYA-457	\$ 4,752.62
6/22/2018	electronic pmt	CA-PERS Supplemental Income 45	\$ 20,624.91
6/22/2018	electronic pmt	Public Employees' Retirement S	\$ 25,838.66
			<u>\$ 236,682.60</u>

Investment Summary - June 2018

U.S. TREASURIES

Quantity	Description	Cusip	Maturity Date	Yield	Cost of Purchase	Market Value
500,000	US Treasury Bill	912796PQ6	July 12, 2018	0.330%	\$ 496,612.76	\$ 509,206.18
Total Values					\$ 496,612.76	\$ 509,206.18

Money Market Account Activity-Beginning Balance	\$ 506,811.09
7/31/17 - Bond Interest	\$ -
Dividend/Interest	\$ 2.85
Business Account Fee	\$ -
Income	\$ 2.85
Intra-Bank Transfers to/from Investment Checking	\$ -
Fund Transfers	\$ -
Cusip Maturity	\$ -
Redemptions	\$ -
Cusip Purchase	\$ (496,612.76)
Purchases	\$ (496,612.76)
Ending Balance - Money Market	\$ 10,201.18
US Treasury Securities Investment Principal	\$ 496,612.76
Total Assets	\$ 506,813.94

Note: As of 7/2/18, the updated treasury information for May has not been received. The information above is as of 5/31/18.

Investment Summary - June 2018

LOCAL AGENCY INVESTMENT FUND

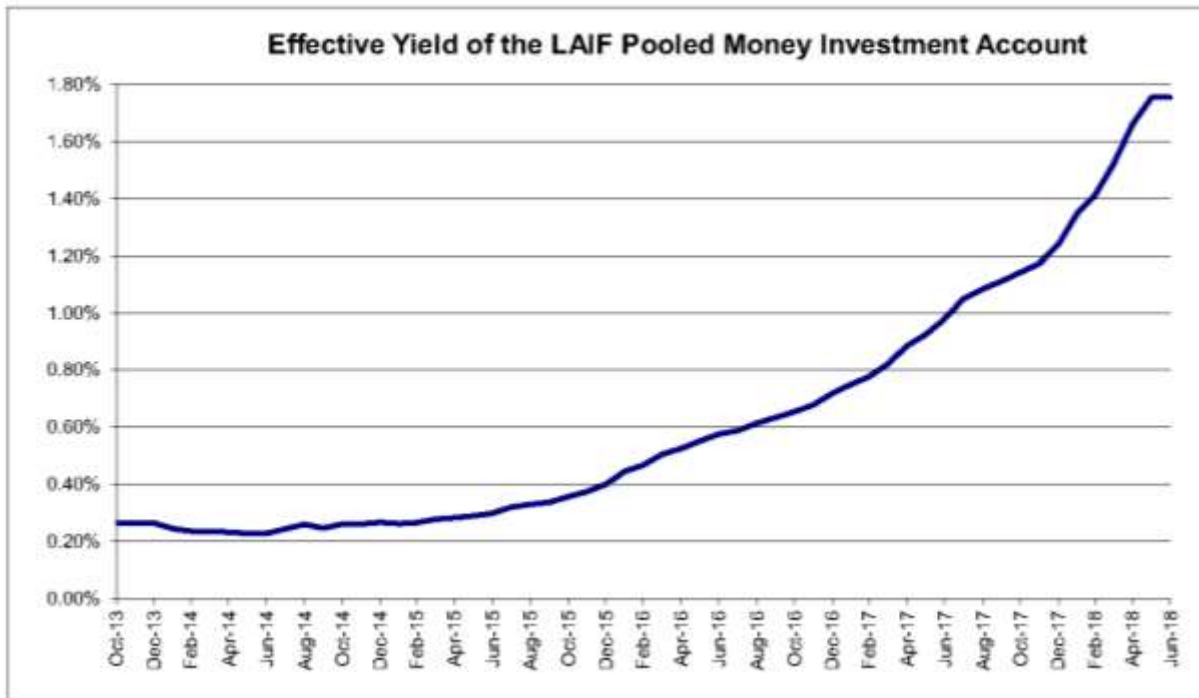
PERIOD	TOTAL WITHDRAWAL AMOUNT	TOTAL DEPOSIT AMOUNT	ACCRUED INTEREST (QUARTERLY)	ENDING BALANCE
July 31, 2017	\$ (1,600,000.00)	\$ -	\$ 34,146.51	\$ 13,745,550.98
August 31, 2017	\$ (4,000,000.00)	\$ -	\$ -	\$ 9,745,550.98
September 30, 2017	\$ -	\$ -	\$ -	\$ 9,745,550.98
October 31, 2017	\$ -	\$ -	\$ 32,517.12	\$ 9,778,068.10
November 30, 2017	\$ -	\$ -	\$ -	\$ 9,778,068.10
December 31, 2017	\$ -	\$ 1,804,683.42	\$ -	\$ 11,582,751.52
January 31, 2018	\$ -	\$ -	\$ -	\$ 11,582,751.52
February 28, 2018	\$ -	\$ -	\$ -	\$ 11,582,751.52
March 31, 2018	\$ (1,000,000.00)	\$ -	\$ -	\$ 10,582,751.52
April 30, 2018	\$ -	\$ -	\$ 40,921.99	\$ 10,623,673.51
May 31, 2018	\$ -	\$ -	\$ -	\$ 10,623,673.51
June 30, 2018	\$ -	\$ -	\$ -	\$ 10,623,673.51

L.A.I.F. INCOME SUMMARY

CURRENT QUARTER **FY YEAR-TO-DATE**

INCOME RECEIVED

\$ 40,921.99 **\$ 107,585.62**



FY 2017-18 Water Revenue					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
02-40010	Sales - Water	\$ 5,912,971	\$ 443,538	\$ 5,102,512	86.29%
02-40011	Sales - Construction Water	\$ 20,000	\$ 2,156	\$ 28,896	144.48%
02-40012	Sales - Imported Water (SGPWA)	\$ 250,000	\$ 21,543	\$ 220,231	88.09%
02-40013	Sales - Imported Water (MUNI)	\$ 850,000	\$ 60,825	\$ 695,028	81.77%
02-40014	Sales Disc.-Multi Units Usage Chrg.	\$ (100,000)	\$ (8,202)	\$ (101,310)	101.31%
02-40015	Water Wholesale Revenue	\$ 300,000	\$ -	\$ 112,183	37.39%
02-40016	Service Establishment Fee	\$ 5,000	\$ 50	\$ 975	19.50%
02-41000	Service Demand Charges	\$ 3,200,000	\$ 266,065	\$ 2,968,172	92.76%
02-41001	Fire Service Standby Fees	\$ 45,000	\$ 3,183	\$ 26,679	59.29%
02-41003	Construction Service Charge	\$ 15,000	\$ 243	\$ 2,476	16.51%
02-41005	Sales Disc-Multi Units Service Chrg.	\$ (135,000)	\$ (11,553)	\$ (127,839)	94.70%
02-41010	Unauthorized Use of Water Charge	\$ 2,000	\$ -	\$ 375	18.75%
02-41110	Meter/Lateral installation	\$ 75,000	\$ 2,060	\$ 29,360	39.15%
02-41112	Fire Flow Test Fees	\$ 3,500	\$ 225	\$ 4,125	117.86%
02-41113	Disconnect/Reconnect Fees	\$ 125,000	\$ 5,925	\$ 71,870	57.50%
02-41121	Penalty - Late Charges	\$ 125,000	\$ 10,225	\$ 128,096	102.48%
02-41124	Bad Debt	\$ (20,000)	\$ (7,176)	\$ (7,511)	37.55%
02-42123	Management & Accounting Fees	\$ 189,000	\$ 15,750	\$ 189,000	100.00%
02-43010	Interest Earned	\$ 62,000	\$ -	\$ 68,211	110.02%
02-43110	Property Tax - Unsecured	\$ 115,000	\$ -	\$ 49,842	43.34%
02-43120	Property Tax - Secured	\$ 2,600,000	\$ -	\$ 2,619,761	100.76%
02-43130	Tax Collection - Prior	\$ 25,000	\$ -	\$ (23,771)	-95.09%
02-43140	Other Taxes	\$ 170,000	\$ 4,218	\$ 141,691	83.35%
02-49110	Rental Income (WATER STOCK)	\$ 1,700	\$ 2,860	\$ 2,860	168.24%
02-49150	Revenue - Misc. Non-Operating	\$ 100,000	\$ 603	\$ 60,469	60.47%
	WATER OPERATING REVENUE	\$ 13,936,171	\$ 812,537	\$ 12,262,379	87.99%
	Grants	\$ -	\$ -	\$ -	
02-89901	Facility Capacity Charges	\$ -	\$ 41,373	\$ 262,645	
02-89902	Sustainability	\$ -	\$ 3,082	\$ 73,256	
	TOTAL WATER REVENUE	\$ 13,936,171	\$ 856,992	\$ 12,598,279	

NOTE: Plan check & inspection fees to 02-42122

FY 2017-18 Sewer Revenue					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
03-40016	Sales - Establish Service Fee	\$ 500	\$ 25	\$ 200	40.00%
03-41000	Sales - Sewer Charges	\$ 11,890,265	\$ 973,273	\$ 10,952,021	92.11%
03-41005	Sales Disc-Multi Units Service Chrg.	\$ (200,000)	\$ (18,508)	\$ (206,896)	103.45%
03-41110	Meter/Lateral Installation	\$ 2,500	\$ -	\$ -	0.00%
03-41121	Penalty - Late Charges	\$ 129,925	\$ 10,987	\$ 124,610	95.91%
03-41124	Bad Debt	\$ (15,000)	\$ (5,033)	\$ (5,033)	33.55%
03-41131	Front Footage Fees	\$ 30,000	\$ -	\$ -	0.00%
03-42122	Revenue - Other Operating	\$ 1,950	\$ 180	\$ 1,800	92.31%
03-43010	Interest Earned	\$ 59,000	\$ -	\$ 62,710	106.29%
03-43110	Property Tax - Unsecured	\$ 50,000	\$ -	\$ 50,000	100.00%
03-43120	Property Tax - Secured	\$ 175,000	\$ -	\$ 175,000	100.00%
03-43130	Tax Collection - Prior	\$ 10,000	\$ -	\$ 10,000	100.00%
03-43140	Other Taxes	\$ 1,500	\$ -	\$ 1,500	100.00%
03-49150	Misc. Non-Oper Revenue	\$ -	\$ -	\$ 1,000	#DIV/0!
	SEWER OPERATING REVENUE	\$ 12,135,640	\$ 960,923	\$ 11,166,912	92.02%
	Grants	\$ -		\$ -	
03-89901	Facility Capacity Charges	\$ -	\$ 374,641	\$ 833,241	
03-89903	Contrib Capital-Front Footage Fees	\$ -	\$ -	\$ -	
03-89905	Contrib Capital-Infrastructure	\$ -	\$ -	\$ -	
	TOTAL SEWER REVENUE	\$ 12,135,640	\$ 1,335,564	\$ 12,000,153	

FY 2017-18 Recycled Revenue					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
04-40010	Sales - Recycled Water	\$ 565,795	\$ 37,614	\$ 421,668	74.53%
04-40011	Sales - Construction Water	\$ 20,000	\$ 183	\$ 2,775	13.87%
04-41000	Sales - Service Demand Chrg.	\$ 60,000	\$ 5,800	\$ 63,553	105.92%
04-41003	Const. Water Minimum Chrg.	\$ 5,000	\$ 56	\$ 844	16.89%
04-41110	Meter/Lateral installation	\$ 15,000	\$ 980	\$ 1,380	9.20%
04-41121	Penalty - Late Charges	\$ 1,000	\$ 622	\$ 4,345	434.46%
04-41122	Revenue - Other Operating	\$ 500	\$ -	\$ (1,145)	-228.96%
04-43010	Interest Earned	\$ 13,000	\$ -	\$ 13,936	107.20%
04-43110	Property Tax - Unsecured	\$ 10,000	\$ -	\$ 10,000	100.00%
04-43120	Property Tax - Secured	\$ 110,000	\$ -	\$ 110,000	100.00%
04-43130	Property Tax - Prior	\$ 10,000	\$ -	\$ 10,000	100.00%
04-43140	Property Tax - Other	\$ 2,500	\$ -	\$ 2,500	100.00%
04-49150	Misc. Non-Operating Revenue	\$ 1,000	\$ -	\$ -	0.00%
	RECYCLED OPERATING REVENUE	\$ 813,795	\$ 45,255	\$ 639,856	78.63%
	Grants	\$ -		\$ -	
04-89901	Facility Capacity Charges	\$ -	\$ 15,467	\$ 88,127	
	TOTAL RECYCLED REVENUE	\$ 813,795	\$ 60,722	\$ 727,982	

FY 2017-18 Water Expenses					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
02-5-01-50010	Labor-Water Resources	\$ 832,563	\$ 69,514	\$ 777,582	93.40%
02-5-01-50011	Labor Credit	\$ -	\$ -	\$ -	
02-5-01-50013	Benefits-Fica	\$ 55,800	\$ 5,471	\$ 63,095	113.07%
02-5-01-50014	Benefits-Life Insurance	\$ 3,440	\$ 132	\$ 1,401	40.74%
02-5-01-50016	Benefits-Health\Defrd Comp	\$ 144,480	\$ 15,974	\$ 186,513	129.09%
02-5-01-50017	Benefits-Disability Insurance	\$ 6,565	\$ 1,011	\$ 10,847	165.22%
02-5-01-50019	Benefits-Workers Compensation	\$ 19,693	\$ -	\$ 25,002	126.96%
02-5-01-50021	Benefits-PERS	\$ 51,059	\$ (256)	\$ 25,482	49.91%
02-5-01-50022	Benefits-PERS-Employer	\$ 106,500	\$ 4,642	\$ 50,382	47.31%
02-5-01-50023	Benefits-Uniforms	\$ 2,580	\$ (180)	\$ 2,650	102.72%
02-5-01-50024	Benefits-Vacation & Sick Pay	\$ 7,500	\$ 546	\$ 8,152	108.69%
02-5-01-50025	Benefits-Boot Allowance	\$ 1,720	\$ 300	\$ 1,822	105.96%
02-5-01-51003	R&M - Structures	\$ 525,000	\$ 15,444	\$ 579,053	110.30%
02-5-01-51011	R&M - CLA Valves	\$ 30,000	\$ 4	\$ 7,856	26.19%
02-5-01-51140	General Supplies & Expenses	\$ 2,500	\$ 35	\$ 2,011	80.44%
02-5-01-51210	Utilities - Power Purchases	\$ 1,400,000	\$ 140,469	\$ 1,276,245	91.16%
02-5-01-51211	Utilities - Electricity & Fuel	\$ 5,000	\$ 380	\$ 4,228	84.56%
02-5-01-51316	Imported Water Purchases	\$ 1,206,200	\$ -	\$ 1,237,520	102.60%
02-5-01-54019	Licenses & Permits	\$ 70,000	\$ 2,710	\$ 50,501	72.14%
02-5-01-54110	Laboratory Services	\$ 50,000	\$ -	\$ 50,779	101.56%
02-5-01-57040	YVRWFF Operating Expense	\$ 850,000	\$ 56,262	\$ 911,902	107.28%
	WATER RESOURCE TOTALS	\$ 5,370,600	\$ 312,459	\$ 5,273,023	98.18%
02-5-03-50010	Labor-Public Works	\$ 1,003,049	\$ 104,671	\$ 1,197,223	119.36%
02-5-03-50011	Labor Credit	\$ -	\$ -	\$ (7,034)	
02-5-03-50013	Benefits-Fica	\$ 126,030	\$ 8,053	\$ 92,562	73.44%
02-5-03-50014	Benefits-Life Insurance	\$ 9,500	\$ 170	\$ 2,763	29.08%
02-5-03-50016	Benefits-Health\Defrd Comp	\$ 399,000	\$ 26,728	\$ 351,423	88.08%
02-5-03-50017	Benefits-Disability Insurance	\$ 14,900	\$ 1,148	\$ 16,261	109.13%
02-5-03-50019	Benefits-Workers Compensation	\$ 44,500	\$ -	\$ 25,925	58.26%
02-5-03-50021	Benefits-PERS	\$ 45,000	\$ (529)	\$ 21,060	46.80%
02-5-03-50022	Benefits-PERS Employer	\$ 102,000	\$ 5,433	\$ 74,069	72.62%
02-5-03-50023	Benefits-Uniforms	\$ 4,000	\$ 801	\$ 9,477	236.92%
02-5-03-50024	Benefits-Vacation & Sick Pay	\$ 7,500	\$ 457	\$ 4,026	53.67%
02-5-03-50025	Benefits-Boot Allowance	\$ 4,750	\$ 2,820	\$ 6,603	139.01%
02-5-03-51001	R & M -Vehicles & Equipment	\$ 230,000	\$ 12,381	\$ 311,061	135.24%
02-5-03-51011	R&M - Valves	\$ 10,000	\$ 15,387	\$ 22,559	225.59%
02-5-03-51020	R&M - Pipelines	\$ 225,000	\$ 10,840	\$ 275,024	122.23%
02-5-03-51021	R&M - Service Lines	\$ 175,000	\$ 4,075	\$ 68,747	39.28%
02-5-03-51022	R&M - Fire Hydrants	\$ 40,000	\$ -	\$ 26,059	65.15%
02-5-03-51030	R&M - Water Meters	\$ 75,000	\$ 159,318	\$ 264,344	352.46%
02-5-03-51031	Fire Flow Testing	\$ 28,259	\$ -	\$ 30,059	106.37%
02-5-03-51092	Equipment Credits	\$ -	\$ -	\$ (5,727)	
02-5-03-51140	General Supplies & Expenses	\$ 7,000	\$ 719	\$ 6,864	98.06%
	PUBLIC WORKS TOTALS	\$ 2,550,488	\$ 352,471	\$ 2,793,347	109.52%
02-5-06-50010	Labor-Administration	\$ 542,038	\$ 59,811	\$ 629,577	116.15%

FY 2017-18 Water Expenses					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
02-5-06-50011	Labor Credit	\$ -	\$ -	\$ 859	
02-5-06-50012	Director Fees	\$ 22,500	\$ 2,629	\$ 26,317	116.96%
02-5-06-50013	Benefits-Fica	\$ 62,000	\$ 5,163	\$ 54,056	87.19%
02-5-06-50014	Benefits-Life Insurance	\$ 3,740	\$ 142	\$ 1,538	41.12%
02-5-06-50016	Benefits-Health\Defrd Comp	\$ 154,600	\$ 19,321	\$ 225,146	145.63%
02-5-06-50017	Benefits-Disability Insurance	\$ 7,300	\$ 815	\$ 8,466	115.97%
02-5-06-50019	Benefits-Workers Compensation	\$ 21,900	\$ -	\$ 12,481	56.99%
02-5-06-50021	Benefits-PERS	\$ 56,700	\$ (231)	\$ 21,222	37.43%
02-5-06-50022	Benefits PERS Employer	\$ 118,200	\$ 4,292	\$ 47,327	40.04%
02-5-06-50023	Uniforms	\$ 2,800	\$ 130	\$ 2,351	83.98%
02-5-06-50024	Benefits-Vacation & Sick Pay	\$ 8,000	\$ 267	\$ 3,588	44.85%
02-5-06-50025	Benefits-Boots	\$ 1,840	\$ -	\$ 1,381	75.05%
02-5-06-51003	R&M - Structures	\$ 195,000	\$ 14,543	\$ 231,426	118.68%
02-5-06-51091	Expense Credits (overhead)	\$ -	\$ -	\$ (3,260)	
02-5-06-51120	Safety Equipment/Supplies	\$ 25,000	\$ 3,435	\$ 32,559	130.24%
02-5-06-51125	Petroleum Products	\$ 106,000	\$ 8,562	\$ 109,148	102.97%
02-5-06-51130	Office Supplies & Expenses	\$ 30,000	\$ 3,060	\$ 37,560	125.20%
02-5-06-51140	General Supplies & Expenses	\$ 54,000	\$ 248	\$ 52,880	97.93%
02-5-06-51199	Disaster Incidences	\$ -	\$ -	\$ -	
02-5-06-51211	Utilities - Electricity	\$ 60,000	\$ 2,999	\$ 30,483	50.81%
02-5-06-51213	Utilities - Natural Gas	\$ 3,000	\$ -	\$ 1,342	44.72%
02-5-06-54002	Dues & Subscriptions	\$ 16,500	\$ 385	\$ 15,828	95.93%
02-5-06-54005	Computer Expenses	\$ 125,000	\$ 14,599	\$ 142,440	113.95%
02-5-06-54010	Postage	\$ 3,500	\$ -	\$ 4,702	134.35%
02-5-06-54011	Printing & Publications	\$ -	\$ 121	\$ 1,870	
02-5-06-54012	Education & Training	\$ 15,000	\$ 1,453	\$ 10,498	69.98%
02-5-06-54013	Utility Billing Expenses	\$ 180,000	\$ 10,742	\$ 175,426	97.46%
02-5-06-54014	Public Relations	\$ 50,000	\$ 9,073	\$ 22,038	44.08%
02-5-06-54016	Travel Related Expenses	\$ 15,000	\$ 3,164	\$ 18,794	125.29%
02-5-06-54017	Certifications & Renewals	\$ 7,000	\$ 150	\$ 9,029	128.99%
02-5-06-54020	Meeting Related Expenses	\$ 6,000	\$ 1,442	\$ 8,051	134.18%
02-5-06-54022	Utilities - YVWD Services	\$ 50,000	\$ -	\$ 73,771	147.54%
02-5-06-54024	Utilities - Waste Disposal	\$ 2,500	\$ -	\$ 2,340	93.58%
02-5-06-54025	Utilities - Telephone & Internet	\$ 45,000	\$ 3,644	\$ 44,297	98.44%
02-5-06-54099	Conservation & Rebates	\$ 22,800	\$ -	\$ 22,735	99.71%
02-5-06-54104	Contractual Services	\$ 130,000	\$ 20,708	\$ 132,651	102.04%
02-5-06-54107	Legal	\$ 60,500	\$ -	\$ 66,827	110.46%
02-5-06-54108	Audit & Accounting	\$ 16,000	\$ -	\$ 10,975	68.59%
02-5-06-54109	Professional Fees	\$ 165,000	\$ 2,870	\$ 206,214	124.98%
02-5-06-55500	Depreciation Reserves	\$ 200,000	\$ 16,667	\$ 200,000	100.00%
	Infrastructure Replacement	\$ 1,000,000	\$ 83,333	\$ 999,996	100.00%
02-5-06-56001	Insurance	\$ 100,000	\$ 7,872	\$ 95,653	95.65%
02-5-06-57030	Regulatory Compliance	\$ 7,000	\$ 662	\$ 9,018	128.82%
02-5-06-57090	Election Related Expenses	\$ -	\$ -	\$ -	
02-5-06-57096	Beaumont Basin Watermaster	\$ 28,000	\$ -	\$ 40,482	144.58%
02-5-06-57199	Suspense	\$ -	\$ -	\$ -	
	ADMINISTRATION TOTALS	\$ 3,719,418	\$ 302,071	\$ 3,840,078	103.24%

FY 2017-18 Water Expenses					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
02-5-40-57201	Debt Srv-Series 2015A Princ.(2500	\$ 1,669,000	\$ -	\$ 1,065,000	63.81%
02-5-40-57402	Interest-Long-Term Debt Bonds	\$ 625,665	\$ -	\$ 1,228,913	196.42%
	40 - Debt	\$ 2,294,665	\$ -	\$ 2,293,913	99.97%
02-5-40-57001	Asset Acq, - Water Resources	\$ -	\$ -	\$ -	--
02-5-40-57003	Asset Acq, - Public works	\$ -	\$ -	\$ -	--
02-5-40-57006	Asset Acq. - Admin (fuel master)	\$ -	\$ -	\$ -	--
	40 - Capital Outlay	\$ -	\$ -	\$ -	--
				\$ 14,200,360	
	TOTAL WATER EXPENSES	\$ 13,935,171	\$ 967,001	\$ 14,200,360	101.90%

FY 2017-18 Sewer Expenses					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
03-5-02-50010	Labor-S Treatment	\$ 878,548	\$ 72,944	\$ 828,777	94.33%
03-5-02-50013	Benefits-Fica	\$ 62,000	\$ 5,647	\$ 65,808	106.14%
03-5-02-50014	Benefits-Life Insurance	\$ 3,680	\$ 135	\$ 1,512	41.09%
03-5-02-50016	Benefits-Health/Defrd Comp	\$ 155,600	\$ 14,995	\$ 181,959	116.94%
03-5-02-50017	Benefits-Disability Insurance	\$ 7,300	\$ 1,028	\$ 10,930	149.73%
03-5-02-50019	Benefits-Workers Compensation	\$ 21,900	\$ -	\$ 25,002	114.17%
03-5-02-50021	Benefits-PERS	\$ 53,000	\$ (256)	\$ 28,345	53.48%
03-5-02-50022	Benefits-PERS Employer	\$ 92,375	\$ 4,675	\$ 53,568	57.99%
03-5-02-50023	Benefits-Uniforms	\$ 2,800	\$ 191	\$ 4,621	165.03%
03-5-02-50024	Benefits-Vacation & Sick Pay	\$ 5,000	\$ 546	\$ 5,623	112.46%
03-5-02-50025	Benefits-Boot Allowance	\$ 1,840	\$ 300	\$ 1,944	105.66%
03-5-02-51003	R&M - Structures	\$ 483,200	\$ 8,029	\$ 583,877	120.84%
03-5-02-51010	R&M - Automation Control	\$ 80,000	\$ -	\$ 64,282	80.35%
03-5-02-51106	Chemicals	\$ 586,000	\$ 45,976	\$ 621,240	106.01%
03-5-02-51111	Propane	\$ 10,000	\$ -	\$ 321	3.21%
03-5-02-51115	Laboratory Supplies	\$ 34,500	\$ 1,386	\$ 46,635	135.17%
03-5-02-51140	General Supplies & Expenses	\$ 3,000	\$ 97	\$ 3,030	101.01%
03-5-02-51210	Utilities - Power Purchases	\$ 800,000	\$ 86,670	\$ 843,068	105.38%
03-5-02-54110	Laboratory Services	\$ 100,000	\$ 511	\$ 87,448	87.45%
03-5-02-57031	Sludge Disposal	\$ 250,000	\$ -	\$ 247,270	98.91%
03-5-02-57034	Brine Operating Expenses	\$ 300,000	\$ 396	\$ 295,279	98.43%
	TREATMENT TOTALS	\$ 3,930,743	\$ 243,269	\$ 4,000,540	101.78%
03-5-06-50010	Labor-Administration	\$ 557,579	\$ 49,783	\$ 516,031	92.55%
03-5-06-50011	Labor Credit	\$ -	\$ -	\$ 859	
03-5-06-50012	Directors Fees	\$ 22,500	\$ 2,629	\$ 26,317	116.96%
03-5-06-50013	Benefits-Fica	\$ 54,200	\$ 4,376	\$ 44,952	82.94%
03-5-06-50014	Benefits-Life Insurance	\$ 3,500	\$ 123	\$ 1,391	39.73%
03-5-06-50016	Benefits-Health/Defrd Comp	\$ 144,700	\$ 16,769	\$ 197,888	136.76%
03-5-06-50017	Benefits-Disability Insurance	\$ 6,400	\$ 671	\$ 7,022	109.72%
03-5-06-50019	Benefits-Workers Compensation	\$ 19,100	\$ -	\$ 15,481	81.05%
03-5-06-50021	Benefits-PERS	\$ 49,600	\$ (185)	\$ 17,578	35.44%
03-5-06-50022	Benefits PERS Employer	\$ 103,300	\$ 3,560	\$ 38,616	37.38%
03-5-06-50023	Benefits-Uniforms	\$ 2,564	\$ (130)	\$ 1,075	41.91%
03-5-06-50024	Benefits-Vacation & Sick Pay	\$ 10,000	\$ 267	\$ 3,589	35.89%
03-5-06-50025	Benefits-Boot Allowance	\$ 1,710	\$ -	\$ -	0.00%
03-5-06-51120	Safety Equipment/Supplies	\$ 10,000	\$ 7,864	\$ 12,790	127.90%
03-5-06-51125	Petroleum Products	\$ 20,000	\$ 1,200	\$ 16,741	83.71%
03-5-06-51130	Office Supplies	\$ 4,000	\$ 448	\$ 12,882	322.06%
03-5-06-51140	General Supplies & Expenses	\$ 25,000	\$ 199	\$ 31,519	126.08%
03-5-06-51199	Disaster Repairs	\$ -	\$ -	\$ -	
03-5-06-54002	Dues & Subscriptions	\$ 10,000	\$ 260	\$ 11,627	116.27%
03-5-06-54003	Management & Admin Services	\$ 189,000	\$ 15,750	\$ 189,000	100.00%
03-5-06-54005	Computer Expenses	\$ 100,000	\$ 14,219	\$ 120,795	120.80%
03-5-06-54011	Printing & Publications	\$ -	\$ 40	\$ 741	N/A
03-5-06-54012	Education & Training	\$ 9,000	\$ 862	\$ 11,443	127.15%
03-5-06-54014	Public Relations	\$ 50,000	\$ 8,299	\$ 9,965	19.93%
03-5-06-54016	Travel Related Expenses	\$ 17,000	\$ 3,143	\$ 19,046	112.03%
03-5-06-54017	Certifications & Renewals	\$ 7,500	\$ 875	\$ 5,400	72.00%
03-5-06-54019	Licenses & Permits	\$ 67,500	\$ -	\$ 66,321	98.25%
03-5-06-54020	Meeting Related Expenses	\$ 5,000	\$ 1,013	\$ 6,369	127.39%
03-5-06-54022	Utilities - YVWD Services	\$ 2,000	\$ -	\$ 1,485	74.25%

FY 2017-18 Sewer Expenses					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
03-5-06-54024	Utilities - Waste Disposal	\$ 13,000	\$ -	\$ 12,116	93.20%
03-5-06-54025	Utilities - Telephone & Internet	\$ 30,000	\$ 4,498	\$ 55,234	184.11%
03-5-06-54030	Drinking Water	\$ 1,000	\$ 92	\$ 1,075	107.45%
03-5-06-54104	Contractual Services	\$ 70,000	\$ 789	\$ 47,988	68.55%
03-5-06-54107	Legal	\$ 45,000	\$ 35	\$ 175,536	390.08%
03-5-06-54108	Audit & Accounting	\$ 16,000	\$ -	\$ 10,975	68.59%
03-5-06-54109	Professional Fees	\$ 225,000	\$ 2,500	\$ 208,893	92.84%
03-5-06-55500	Depreciation Reserves	\$ 500,000	\$ 41,668	\$ 500,001	100.00%
	Infrastructure Replacement	\$ 700,000	\$ 58,333	\$ 699,996	100.00%
03-5-06-56001	Insurance	\$ 100,000	\$ 7,872	\$ 94,461	94.46%
03-5-06-57030	Regulatory Compliance	\$ 55,000	\$ 662	\$ 63,715	115.85%
	ADMINISTRATION TOTALS	\$ 3,246,153	\$ 248,484	\$ 3,256,913	100.33%
03-5-07-50010	Labor-Environmental Control	\$ 424,161	\$ 26,344	\$ 379,848	89.55%
03-5-07-50011	Labor Credit	\$ -	\$ -	\$ -	
03-5-07-50013	Benefits-Fica	\$ 43,302	\$ 1,966	\$ 29,346	67.77%
03-5-07-50014	Benefits-Life Insurance	\$ 3,200	\$ 57	\$ 775	24.23%
03-5-07-50016	Benefits-Health\Defrd Comp	\$ 134,400	\$ 8,757	\$ 98,948	73.62%
03-5-07-50017	Benefits-Disability Insurance	\$ 5,100	\$ 360	\$ 4,943	96.91%
03-5-07-50019	Benefits-Workers Compensation	\$ 15,300	\$ 271	\$ 20,336	132.92%
03-5-07-50021	Benefits-PERS	\$ 25,000	\$ (151)	\$ 8,705	34.82%
03-5-07-50022	Benefits-PERS Employer	\$ 40,000	\$ 1,657	\$ 24,173	60.43%
03-5-07-50023	Benefits-Uniforms	\$ 2,400	\$ 110	\$ 2,775	115.62%
03-5-07-50024	Benefits-Vacation & Sick Pay	\$ 2,000	\$ 244	\$ 2,944	147.20%
03-5-07-50025	Benefits-Boot Allowance	\$ 1,600	\$ 120	\$ 458	28.62%
03-5-07-51003	R&M - Structures	\$ 225,000	\$ 15,910	\$ 274,414	121.96%
03-5-07-51140	General Supplies & Expenses	\$ 1,000	\$ 675	\$ 1,468	146.79%
03-5-07-51241	Lift Station #1	\$ 65,000	\$ 17,892	\$ 70,037	107.75%
03-5-07-51242	Lift Station #2	\$ 20,000	\$ 1,056	\$ 16,718	83.59%
03-5-07-51243	Lift Station #3	\$ 12,000	\$ 232	\$ 9,997	83.31%
03-5-07-51244	Lift Station #4	\$ 32,000	\$ 697	\$ 13,585	42.45%
03-5-07-51246	Lift Station #6	\$ -	\$ -	\$ 129	
03-5-07-51248	Lift Station #8	\$ 7,000	\$ 92	\$ 7,056	100.79%
03-5-07-54111	Pretreatment	\$ 66,000	\$ 2,202	\$ 57,152	86.59%
	ENVIRONMENTAL CONTROL TOTAL	\$ 1,124,463	\$ 78,492	\$ 1,023,805	91.05%
03-5-40-57202	Debt Service - Principal - WRWRF	\$ 2,199,524	\$ -	\$ 2,199,524	100.00%
03-5-40-57203	Debt Service - Principal - Brineline	\$ 423,936	\$ -	\$ 423,936	100.00%
03-5-40-57204	Debt Service - Principal - WISE	\$ 130,782	\$ -	\$ 130,782	100.00%
03-5-40-57205	Debt Service - Principal - R 10.3	\$ 38,318	\$ -	\$ 38,318	100.00%
03-5-40-57206	Debt Service - Principal - Crow & B12-1	\$ 15,014	\$ -	\$ 14,983	99.79%
03-5-40-57403	Debt Service - Interest	\$ 1,026,707	\$ -	\$ 1,026,151	99.95%
	40 - Debt	\$ 3,834,281	\$ -	\$ 3,833,694	99.98%
03-5-40-57002	Asset Acq. - Treatment	\$ -	\$ -	\$ -	
03-5-40-57006	Asset Acq. - Admin (fuel master)	\$ -	\$ -	\$ -	
03-5-40-57007	Asset Acq. - EC (ADS flow monitors & smart covers)	\$ -	\$ -	\$ -	
	40 - Capital Outlay	\$ -	\$ -	\$ -	
				\$ 12,114,952	
	TOTAL SEWER EXPENSES	\$ 12,135,640	\$ 570,246	\$ 12,114,952	99.83%

FY 2017-18 Recycled Expenses					
G/L ACCOUNT #	DESCRIPTION	BUDGET	Jun'18	Year to Date	%
04-5-06-50010	Labor-Recycled Water	\$ 343,507	\$ 31,277	\$ 383,074	111.52%
04-5-06-50011	Labor - Credit	\$ -	\$ -	\$ 191	
04-5-06-50012	Director Fees	\$ 5,000	\$ -	\$ -	0.00%
04-5-06-50013	Benefits-FICA	\$ 20,000	\$ 2,394	\$ 29,326	146.63%
04-5-06-50014	Benefits-Life Insurance	\$ 1,820	\$ 60	\$ 668	36.72%
04-5-06-50016	Benefits-Health & Def Comp	\$ 30,000	\$ 9,087	\$ 93,294	310.98%
04-5-06-50017	Benefits-Disability Insurance	\$ 3,300	\$ 429	\$ 4,915	148.93%
04-5-06-50019	Benefits-Workers Compensation	\$ 4,000	\$ -	\$ 12,509	312.71%
04-5-06-50021	Benefits-PERS Employee	\$ 11,000	\$ (142)	\$ 10,119	91.99%
04-5-06-50022	Benefits-PERS Employer	\$ 18,243	\$ 2,213	\$ 26,333	144.35%
04-5-06-50023	Benefits-Uniforms	\$ 1,365	\$ 36	\$ 766	56.11%
04-5-06-50024	Benefits-Vacation & Sick Pay	\$ 500	\$ 56	\$ 510	101.99%
04-5-06-50025	Benefits-Boots	\$ 910	\$ 60	\$ 260	28.57%
04-5-06-51003	R & M-Structures	\$ 25,000	\$ 23,190	\$ 52,208	208.83%
04-5-06-51011	R & M-Valves	\$ 5,000	\$ -	\$ -	0.00%
04-5-06-51020	R & M-Pipelines	\$ 5,000	\$ 3,718	\$ 5,111	102.22%
04-5-06-51021	R & M-Service Lines	\$ 15,000	\$ 98	\$ 3,343	22.29%
04-5-06-51022	R & M-Fire Hydrants	\$ 1,000	\$ 3,244	\$ 3,516	351.56%
04-5-06-51030	R & M-Meters/Backflows	\$ 9,000	\$ -	\$ 9,203	102.26%
04-5-06-51140	General Supplies & Expenses	\$ 8,500	\$ 104	\$ 7,635	89.83%
04-5-06-51210	Utilities-Power Purchasess	\$ 70,000	\$ 8,220	\$ 76,694	109.56%
04-5-06-54002	Dues & Subscriptions	\$ 4,000	\$ -	\$ 1,688	42.20%
04-5-06-54005	Computer Expense	\$ 14,000	\$ 12	\$ 11,310	80.78%
04-5-06-54011	Printing & Publications	\$ -	\$ -	\$ 152	N/A
04-5-06-54012	Education & Training	\$ 5,000	\$ 30	\$ 4,457	89.14%
04-5-06-54014	Public Relations	\$ 2,000	\$ 1,840	\$ 2,918	145.92%
04-5-06-54016	Travel Related Expenses	\$ 6,500	\$ 711	\$ 5,363	82.52%
04-5-06-54017	Certifications & Renewals	\$ 2,000	\$ -	\$ 1,371	68.55%
04-5-06-54019	Licenses & Permits	\$ 20,000	\$ -	\$ 11,156	55.78%
04-5-06-54020	Meeting Related Expenses	\$ 2,500	\$ 209	\$ 1,401	56.03%
04-5-06-54022	Utilities - YVWD Services	\$ 25,000	\$ -	\$ 22,993	91.97%
04-5-06-54025	Utilities - Telephone & Internet	\$ 1,500	\$ -	\$ 1,925	128.33%
04-5-06-54010	Contractual Services	\$ 8,400	\$ -	\$ 4,146	49.35%
04-5-06-54107	Legal	\$ 1,250	\$ -	\$ -	0.00%
04-5-06-54108	Audit & Accounting	\$ 2,500	\$ -	\$ 1,950	78.00%
04-5-06-54109	Professional Fees	\$ 61,000	\$ -	\$ 75,030	123.00%
04-5-06-54110	Laboratory Services	\$ -	\$ -	\$ -	
04-5-06-55500	Depreciation	\$ 8,000	\$ 665	\$ 8,000	100.00%
	Infrastructure Replacement	\$ 25,000	\$ 2,083	\$ 24,996	99.99%
04-5-06-56001	Insurance	\$ 20,000	\$ 1,749	\$ 20,991	104.95%
04-5-06-57030	Regulatory Compliance	\$ 25,000	\$ -	\$ 28,373	113.49%
04-5-06-57040	Environmental Compliance	\$ 2,000	\$ -	\$ -	0.00%
				\$ 947,896	
	TOTAL RECYCLED EXPENSES	\$ 813,795	\$ 91,342	\$ 947,896	116.48%



Date: July 10, 2018

Prepared By: Erin Anton, Administrative Clerk V
Peggy Little, Administrative Supervisor

Subject: Authorization to Post Delinquent accounts to the Property Tax Rolls of San Bernardino County and Riverside County

Each year the Yucaipa Valley Water District posts delinquent utility service accounts to the property tax rolls for collection. The property owners have been notified that the District intends to place all delinquent charges, fees and penalties to the property tax rolls.

The attached resolutions provide detailed account information and the total delinquent amount for each parcel.

RESOLUTION NO. 2018-0xx**A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
ADDING DELINQUENT NON-PAID CHARGES TO THE ANNUAL PROPERTY
TAXES LEVIED UPON THE PARCELS FOR WHICH THE CHARGES ARE
DELINQUENT IN SAN BERNARDINO COUNTY, CALIFORNIA**

WHEREAS, the Board of Directors of the Yucaipa Valley Water District has reviewed a report and statement of those delinquent unpaid charges for services within the Yucaipa Valley Water District which were delinquent and unpaid for sixty (60) days or more on July 17, 2018; and

WHEREAS, the Board of Directors have decided that said delinquent and unpaid charges are to be included in the property tax levied on said property.

NOW THEREFORE, the Board of Directors of the Yucaipa Valley Water District does hereby resolve, determine and order as follows:

Section 1. That the report of the Yucaipa Valley Water District's delinquent and unpaid charges for service within the District which remain unpaid and delinquent for sixty (60) days or more on July 17, 2018, is hereby approved as the list of delinquent parcels.

Section 2. That the unpaid and delinquent charges listed in said report, for the parcel of property, are fixed at the amount listed and shall be released administratively upon payment.

Section 3. That the Secretary shall file with the County Auditor of the County of San Bernardino, and the Board of Supervisors of San Bernardino County, in the time and manner specified by the County Auditor and Board of Supervisors, a copy of such written report with a statement endorsed hereon over the signature of the Secretary that such a report has been finally adopted and approved by this Board of Directors and that the County Auditor shall enter the amount of such charges against the respective lot or parcel of land as it appears on the current assessment roll.

Section 4. That the County Tax Collector shall include the amount of charges on bills for taxes levied against the respective lot and parcel of land and, thereafter, the amount of such unpaid and delinquent charges shall be collected at the same time and in the same manner by the same person as, together with and not separately from the general taxes, if any, for the District or the County of San Bernardino and shall be delinquent at the same time and thereafter be subject to the same delinquency penalties.

Section 5. That any parcel collected through this method of collection remain on the Annual Property Tax Roll and charged the monthly sewer service charge annually.

This Resolution is effective immediately upon adoption.

PASSED AND ADOPTED this 17thth day of July 2018

YUCAIPA VALLEY WATER DISTRICT

Jay Bogh,
President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager

**Yucaipa Valley Water District
Unpaid and Delinquent Sewer Charges
July 17, 2018**

<u>Account</u>	<u>APN</u>	<u>Address</u>	<u>Added to Tax Rolls</u>
46-00021-01	30107207	31964 AVENUE E	336.33
46-00057-04	30112247	32037 AVENUE E	942.02
46-00063-02	30105227	12201-0 13TH ST	1,413.53
46-00075-00	30110101	12395 13TH ST	184.09
46-00144-09	30109325	12568 13TH ST	112.48
46-00163-01	30117430	32717 KENTUCKY ST	196.88
46-00173-01	30117439	32797 KENTUCKY	519.76
96-00100-06	31923333	13615 5TH ST	470.95
96-00162-01	124208208	13624 CUSTER ST	470.95
96-00175-03	31827221	13591 MEADOW ST	470.95
96-00222-02	31924281	13635 4TH ST	470.95
96-00317-00	31951111	35120 SAN CARLOS	392.18
96-00348-02	31925218	13486 2ND ST	470.95
96-00352-07	31926229	13483 2ND ST	470.95
96-00356-05	31925384	13649 3RD ST	469.44
96-00379-02	124215201	13496 LANTANA AVE	470.95
96-00461-02	31924245	13693 4TH ST	591.75
96-00483-01	31821311	33842 COUNTY LINE LN	308.72
96-00546-02	31947202	35270 SANTA MARIA	230.51
96-00547-03	31947135	35271 SANTA MARIA	252.31
96-00571-02	31826101	13397 ROBIN CT	470.95
96-00680-01	124206133	13408 DOUGLAS ST	470.95
96-00686-01	31927165	35253 AVENUE H	1,941.83
96-00868-00	31819105	33600 CALIMESA BLVD	84,814.12
96-00893-08	124211105	35587 WILDWOOD CANYON RD	470.95
96-00945-03	31940201	13389 2ND ST	469.44
96-00952-03	31923376	13691 5TH ST	469.45
96-00960-04	31947123	35271 SANTA ROSA	220.34
96-00969-02	31940108	13370 2ND ST	470.95
96-01068-01	31823131	34059 AVENUE I	470.95
96-01072-04	31924247	13677 4TH ST	470.95
96-01075-09	124221104	35766 AVENUE H	470.95
96-01103-04	31823138	34054 AVENUE J	470.95
96-01114-02	31921149	34927 WILDWOOD CANYON RD	470.95
96-01150-08	31920214	34883 WILDWOOD CANYON RD	158.84
96-01152-03	32214406	35454 AVENUE H	237.01
96-01276-01	31926201	34917 AVENUE H	425.71
96-01368-04	31926263	35036 VICKEY WAY	162.00
96-01388-05	31920339	34848 AVENUE H	519.75
96-01456-04	31941105	35045 SAN CARLOS	1,073.07
96-01532-02	31925223	34887 AVENUE H	469.44
96-01712-03	124221116	35724 DAMASCUS ST	470.95
96-01788-01	124205104	13277 BRYANT ST	469.44
96-01790-02	31823529	13608 5TH ST	273.98
96-01797-03	31926228	13457 2ND ST	338.01
96-01900-03	31921274	13318 CALIFORNIA ST	470.95
96-01946-04	31926258	34968 VICKEY WAY	374.06
96-02012-03	31924202	34545 AVENUE H	568.82
96-02067-02	31823105	34071 AVENUE I	942.01
96-02103-01	124221120	13338 GRANT ST	470.95
96-02108-06	124224117	35728 COUNTY LINE RD	469.44
96-02177-02	31820220	13371 5TH PL	144.52
96-02239-05	124222215	13498 HOLMES ST	470.95
96-02417-02	124221208	35882 AVENUE H	470.95
96-02424-02	31925323	34858 COUNTY LINE RD	470.95
96-02452-02	31819268	13171 7TH PL	670.51

**Yucaipa Valley Water District
Unpaid and Delinquent Sewer Charges
July 17, 2018**

<u>Account</u>	<u>APN</u>	<u>Address</u>	<u>Added to Tax Rolls</u>
96-02454-05	31822108	13378 5TH PL	470.95
96-02458-02	31924242	13725 4TH ST	284.80
96-02463-06	124208107	35368 SAN PABLO DR	230.51
96-02475-04	124207110	35352 SANTA ROSA DR	184.13
96-02506-05	124208123	35309 SANTA ROSA	470.95
96-02569-02	31956105	13354 SAN JUAN AVE	469.44
96-02708-06	31941116	34997 SAN ROSEN CT	226.03
96-02764-09	31925346	34789 TARA LN	268.44
96-02789-03	31941122	34925 SAN ROSEN CT	173.83
96-02819-02	124223115	35748 SANTA MARIA ST	468.93
96-03012-06	31948122	34334 AVENUE H	420.89
96-03158-01	30110113	12329 13TH ST	470.95

San Bernardino Total

115,662.54

RESOLUTION NO. 2018-0xx**A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
ADDING DELINQUENT NON-PAID CHARGES TO THE ANNUAL PROPERTY
TAXES LEVIED UPON THE PARCELS FOR WHICH THE CHARGES ARE
DELINQUENT IN RIVERSIDE COUNTY, CALIFORNIA**

WHEREAS, the Board of Directors of the Yucaipa Valley Water District has reviewed a report and statement of those delinquent unpaid charges for services within the Yucaipa Valley Water District which were delinquent and unpaid for sixty (60) days or more on July 17, 2018; and

WHEREAS, the Board of Directors have decided that said delinquent and unpaid charges are to be included in the property tax levied on said property.

NOW THEREFORE, the Board of Directors of the Yucaipa Valley Water District does hereby resolve, determine and order as follows:

Section 1. That the report of the Yucaipa Valley Water District's delinquent and unpaid charges for service within the District which remain unpaid and delinquent for sixty (60) days or more on July 17, 2018, is hereby approved as the list of delinquent parcels.

Section 2. That the unpaid and delinquent charges listed in said report, for the parcel of property, are fixed at the amount listed and shall be released administratively upon payment.

Section 3. That the Secretary shall file with the County Auditor of the County of Riverside, and the Board of Supervisors of San Bernardino County, in the time and manner specified by the County Auditor and Board of Supervisors, a copy of such written report with a statement endorsed hereon over the signature of the Secretary that such a report has been finally adopted and approved by this Board of Directors and that the County Auditor shall enter the amount of such charges against the respective lot or parcel of land as it appears on the current assessment roll.

Section 4. That the County Tax Collector shall include the amount of charges on bills for taxes levied against the respective lot and parcel of land and, thereafter, the amount of such unpaid and delinquent charges shall be collected at the same time and in the same manner by the same person as, together with and not separately from the general taxes, if any, for the District or the County of Riverside and shall be delinquent at the same time and thereafter be subject to the same delinquency penalties.

Section 5. That any parcel collected through this method of collection remain on the Annual Property Tax Roll and charged the monthly sewer service charge annually.

This Resolution is effective immediately upon adoption.

PASSED AND ADOPTED this 17th day of July 2018.

YUCAIPA VALLEY WATER DISTRICT

Jay Bogh,
President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager

Yucaipa Valley Water District
Unpaid and Delinquent Sewer Charges
July 17, 2018

<u>Account</u>	<u>APN</u>	<u>Address</u>	<u>Added to Tax Rolls</u>
96-00029-06	411111001-8	955 CALIMESA BLVD.	470.95
96-00053-04	409020012-0	273 E COUNTY LINE RD	667.65
96-00071-04	410100027-1	193 W COUNTY LINE RD	438.99
96-00074-04	411251009-9	450 MYRTLEWOOD DR	717.47
96-00156-01	411100033-3	941 CALIMESA BLVD	470.95
96-00180-04	411255002-4	423 MYRTLEWOOD DR	470.95
96-00308-02	411100003-6	915 CALIMESA BLVD	470.95
96-00319-02	411242011-2	1199 5TH ST	626.84
96-00391-02	410020007-6	367 W COUNTY LINE RD	735.92
96-00516-01	411190002-4	1071 7TH ST	470.95
96-00640-03	411242015-6	1167 5TH ST	712.07
96-00665-05	411200002-4	749 W AVENUE L	942.01
96-00678-04	410140014-3	146 W AVENUE L	470.95
96-01277-04	411100040-9	905 CALIMESA BLVD	667.46
96-01337-08	410120028-4	967 2ND ST	345.52
96-01357-03	409111001-1	205 LORETTA WAY	183.14
96-01389-01	409130006-5	331 E AVENUE L	622.62
96-01390-02	410070021-3	228 W AVENUE L	470.95
96-01416-08	410161010-4	1086 DONNA LN	470.95
96-01485-02	409020024-1	915 DOUGLAS PL	470.95
96-01654-07	411172006-2	1073 4TH ST	469.44
96-01676-01	411171001-4	1059 5TH ST	437.32
96-01710-01	409030011-0	933 DOUGLAS ST	942.01
96-01783-02	411120035-7	1039 CALIMESA BLVD	117.31
96-01796-08	411171030-0	1106 4TH ST	667.65
96-01911-11	411160004-3	486 BUENA VISTA	568.82
96-01982-02	409111003-3	217 LORETTA WAY	568.82
96-02010-06	411251004-4	480 MYRTLEWOOD DR	470.95
96-02063-02	411150009-7	934 4TH ST	470.95
96-02131-02	411160002-1	991 5TH ST	470.95
96-02178-01	411171011-3	461 W AVENUE L	470.95
96-02197-01	411150014-1	441 W COUNTY LINE RD	470.95
96-02240-02	410161002-7	197 W AVENUE L	470.95
96-02296-02	413071005-3	840 W COUNTY LINE RD	410.05
96-02676-04	410020027-4	380 ROGERS CT	470.95
96-02877-04	410162017-4	1054 BARNES CT	470.72
96-02906-02	410120030-5	180 VICTORIA LN	288.53
96-02937-04	410152008-5	989 COTTONWOOD DR	469.44
Riverside Total			19,605.00



Date: July 10, 2018

Prepared By: Allison M. Edmisten, Chief Financial Officer

Subject: Consideration of Consolidating 457(b) Deferred Compensation Plans with VOYA Financial

The District currently offers employees two options for their 457(b) Deferred Compensation plans, one plan through CalPERS and one plan through VOYA. VOYA also administers the CalPERS plan. By consolidating our two plans into one plan through VOYA we will provide a reduction in fees paid by employees, significant improvements to the plan, and additional options available to employees.

	Current CalPERS 457(b) Plan	Current VOYA 457(b) Plan	Proposed Consolidated VOYA 457(b) Plan
Recordkeeping Fee	0.42% - 0.44%	1.25%	0.40%
Investment Fee (average)	0.41%	0.86%	0.20%

Other options included in the proposed consolidation are as follows:

- Voya Fixed Account with current interest rate of 1.75% for all employees
 - Current plan with CalPERS does not offer guaranteed investment option for those who want stability of principal.
- Access to open architecture investment menu
 - Allows District to monitor investments through publicly available information
 - Allows District to engage in selection and ongoing review of investment menu with no restriction on mutual fund choices
 - Allows full transparency in fees and investment information for plan participants – able to track online (not currently available with CalPERS or VOYA existing plans)
 - New proposed investment menu from well know, cost effective, high quality investment managers (e.g. Vanguard, American Funds).
 - New proposed investment menu fills asset classes missing from current choices with CalPERS (e.g. Large Cap Value, Large Cap Growth, Mid Cap Value, Mid Cap Blend, Mid Cap Growth, Small Value, Small Growth, Global and International).
- Local Service from VOYA based out of their Redlands location
- Administrative function outsourcing to relieve staff burden and improve participant experience. The following functions will be reviewed and approved by VOYA:
 - Domestic Relations Orders
 - Unforeseen Emergency Withdrawals
 - Participant Account Loans
- New feature allowing participants to change contribution rates either online, via smartphone app, via call center, or traditional paper-based changes
- Loan Option for both General Purpose and Residential loans for all employees.

- Addition of optional third-party advice and managed account program through Morningstar Associates, LLC
- Optional Self-Directed Brokerage Account through TD Ameritrade

Financial Consideration

There is no financial impact to the District. All fees are paid by employees who utilize the 457(b) Deferred Compensation Plan option.



Date: July 10, 2018

Prepared By: Allison M. Edmisten, Chief Financial Officer

Subject: Consideration of Implementing a New Customer Utility Billing Portal and Payment Platform

On October 3, 2017, [DM 17-092], the Board of Directors authorized the General Manager to execute a contract with Paymentus to provide customers the freedom to access billing and payment information anytime, anywhere from any device. After the contract with Paymentus was signed in November 2017, Paymentus was unable to connect its electronic bill payment services and payment processing gateway to the District in spite of the continuous efforts of the District to enable Paymentus to do so. On June 8, 2018 a Notice of Termination was issued to Paymentus.

On June 12, 2018, [DM 18-092], the Board of Directors authorized the General Manager to execute an agreement with Caselle, Inc. for software services to replace our current system that handles our utility billing, general ledger, payroll, etc. Xpress Bill Pay is a payment processing vendor that works closely with Caselle, Inc. to provide the same type of services that District staff initially explored with Paymentus.

The specific elements of the proposed system include:

- IVR (Interactive Voice Response) – provides customers the ability to make automated phone payments at any time.
- Self-Service Customer Portal – allows customers to view their account, manage their online billing and payment settings, access payment histories, view and pay multiple accounts and manage their paperless settings.
- Mobile Friendly Website – allows customers to access the website via a smartphone or tablet
- App through Apple Store – allows customers to access their account via an app rather than utilizing the website. The Android app is currently in development.

Financial Consideration

Yucaipa Valley Water District currently absorbs the customer service fees as detailed in DM 17-058. The monthly service fee for Xpress Bill Pay is \$19.00 per month as well as a support hosting fee for online customers of \$0.015. The transaction fees range from \$0.20 to \$0.95 depending on type of payment processed (credit/debit card, EFT or e-check, online banking or IVR payment). The 2018-19 approved budget includes a line item for convenience fees in the amount of \$30,000 [GL # 02-5-06-54013].



Date: July 10, 2018
Prepared By: Allison M. Edmisten, Chief Financial Officer
Subject: Consideration of a GASB 75 Compliance – Actuarial Report

The Government Accounting Standards Board (GASB) issued its Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions (OPEB)*. Many local governments offer retiree medical benefits that will now be subject to new requirements through this statement. The Net OPEB Liability will now be reported on the face of the Statement of Net Position, similar to the Net Pension Liability recently added through GASB 68.

The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (OPEB). This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses.

As a result of Yucaipa Valley Water District having fewer than 200 employees (active and inactive), we are able to use an “alternative measurement method” for GASB 75. This is essentially a simplified method of determining our liability. As a result of being a “small district/entity” based on our employee count, we will be utilizing a program through the CA School Board Association (CSBA) where we provide data to CSBA, they compile the report and then an actuarial firm, Demsey, Filliger & Associates, LLC. reviews and confirms the report. This will meet the GASB requirements and the actuarial report will be utilized by our auditors for the information to be included in our financial statements.

Financial Consideration

The cost of this actuarial report is \$1,875 and will be split between the water, sewer and recycled divisions [G/L Account # 54108, Audit & Accounting].



Date: July 10, 2018
Prepared By: Matthew Porras, Implementation Manager
Subject: Consideration of Purchasing District Vehicles

The vehicles in the District’s fleet have recently been assessed during the process of the Vehicle and Equipment Health Report discussed at the Board Workshop on March 13, 2018 [WM 18-095]. The recent assessment identified the need to purchase a number of light duty vehicles, heavy-duty vehicles and equipment. The heavy-duty vehicles and equipment purchases will be discussed at a future workshop.

The table below outlines the vehicles that are being considered for purchase. Quotes for the vehicles have been acquired and are attached. This group of vehicles has been selected based on the District needs. Competitive models and manufactures were considered during the selection process.

Vehicle		Estimated Costs Based on Recent Quotes			
Make	Model	Cost Each	Quantity	Sub-Total	Total
Ford	Escape	\$24,384	5	\$121,920	
Ford	Explorer	\$36,652	1	\$36,652	\$212,511
Ford	F150	\$26,092	1	\$26,092	
Kubota	RTV	\$13,924	2	\$27,847	

Financial Consideration:

Funding for these vehicles will be from Water and Sewer Depreciation Reserves as detailed below [GL Accounts #10310].

Vehicle		Cost Allocation by Fund			
Make	Model	Sewer Reserves		Water Reserves	
Ford	Escape	50%	\$60,960	50%	\$60,960
Ford	Explorer	50%	\$18,326	50%	\$18,326
Ford	F150	0%	\$0	100%	\$26,092
Kubota	RTV	100%	\$27,847	0%	\$0
			\$107,133	\$105,378	



Fritts Ford
 8000 Auto Drive, Riverside, California, 925044193
 Office: 951-687-2121

2018 Escape, Sport Utility
 4dr 4x4 SE(U9G)
 Price Level: 835

Selected Options

Code	Description
Base Vehicle	
U9G	Base Vehicle Price (U9G)
Packages	
200A	<p>Equipment Group 200A</p> <p>Includes:</p> <ul style="list-style-type: none"> - Engine: 1.5L EcoBoost - Includes auto start-stop technology. - Transmission: 6-Speed Automatic w/SelectShift - 3.51 Axle Ratio - GVWR: TBD - Tires: P235/55R17 A/S BSW - Low-Rolling-Resistance. Includes mini spare. - Wheels: 17" Sparkle Silver-Painted Aluminum - Heated Unique Cloth Front Bucket Seats - Includes 10-way power driver seat (includes power lumbar and power recline) and 4-way manual front passenger (fore/aft with manual recline). - Radio: AM/FM Stereo w/Single-CD/MP3 Player - Includes 6 speakers, speed compensated volume and SiriusXM radio with a 6 month prepaid subscription. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - SYNC Communications & Entertainment System - Includes enhanced voice recognition communication, 911 Assist, 4.2" LCD screen in center stack, AppLink and 1 smart charging multimedia USB port.
Powertrain	
99D	<p>Engine: 1.5L EcoBoost</p> <p>Includes auto start-stop technology.</p>
446	Transmission: 6-Speed Automatic w/SelectShift
STDAX	3.51 Axle Ratio
STDGV	GVWR: TBD
Wheels & Tires	
STDTR	<p>Tires: P235/55R17 A/S BSW</p> <p>Low-Rolling-Resistance. Includes mini spare.</p>
64N	Wheels: 17" Sparkle Silver-Painted Aluminum
Seats & Seat Trim	
K	<p>Heated Unique Cloth Front Bucket Seats</p> <p>Includes 10-way power driver seat (includes power lumbar and power recline) and 4-way manual front passenger (fore/aft with manual recline).</p>
Other Options	
PAINT	Monotone Paint Application

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.

Prepared by: Vikky Garay Date: 07/03/2018



Fritts Ford
 8000 Auto Drive, Riverside, California, 925044193
 Office: 951-687-2121

2018 Escape, Sport Utility
 4dr 4x4 SE(U9G)
 Price Level: 835

Selected Options (cont'd)

Code	Description
106WB	106" Wheelbase
STDRD	Radio: AM/FM Stereo w/Single-CD/MP3 Player SiriusXM service is not available in Alaska and Hawaii. <i>Includes 6 speakers, speed compensated volume and SiriusXM radio with a 6 month prepaid subscription. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-855-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius XM and all related marks and logos are trademarks of Sirius XM Radio Inc.</i> Includes: - SYNC Communications & Entertainment System Includes enhanced voice recognition communication, 911 Assist, 4.2" LCD screen in center stack, AppLink and 1 smart charging multimedia USB port.
153	Front License Plate Bracket Standard in states requiring two license plates and optional to all others.
Emissions	
425	50-State Emissions System
Interior Colors	
KB_01	Charcoal Black
Primary Colors	
YZ_01	Oxford White

Yucaipa Water Dist

Quote for 2019 Ford Escape 4x4 SE per your specs

July 3, 2018

\$22,614.18
 \$ 8.75 Tire Fee
 \$ 8.50 DMV CVR for Exempt Plates
 \$ 1,752.60 7.75% Sales Tax
 \$24,384.03 Each vehicle x 5 = \$121,920.15

Thank you,

Vikiy Garay
 Fritts Ford fleet/Commercial

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.



Fritts Ford
 8000 Auto Drive, Riverside, California, 925044193
 Office: 951-687-2121

2019 Explorer, Sport Utility
 4dr 4x4 XLT(K8D)
 Price Level: 915

Selected Options

Code	Description
Base Vehicle	
K8D	Base Vehicle Price (K8D)
Packages	
201A	<p>Equipment Group 201A</p> <p><i>Includes:</i></p> <ul style="list-style-type: none"> - Engine: 3.5L Ti-VCT V6 (FFV) Flexible Fuel Vehicle (FFV) system is standard equipment for vehicles with the 3.5L Ti-VCT V6 engine shipped to Federal Emissions States or Cross Border State dealers and is only available with a Federal emissions system. (FFV system not available with code 422 and requires code 936 or 423 if applicable for California Emissions State dealer destinations). Cross border states include AZ, DC, ID, NH, NV, OH, VA, WV. - Transmission: 6-Speed SelectShift Automatic - 3.65 Non-Limited Slip Axle Ratio - GVWR: 6,160 lbs - Tires: P245/60R18 AS 85W - Wheels: 18" 5-Split-Spoke Sparkle Silver-Painted Aluminum - Driver Connect Package <ul style="list-style-type: none"> - SYNC 3 Communications & Entertainment System Includes enhanced voice recognition, 8" LCD capacitive touchscreen in center stack with swipe capability, pinch-to-zoom capability included when equipped with available voice-activated touchscreen navigation system, AppLink, 911 Assist, Apple CarPlay and Android Auto compatibility, 2 smart-charging multimedia USB ports (1 replaces the front center floor console powerpoint port). - SYNC Connect Includes remotely start, lock and unlock vehicle (includes service for 5 years from the vehicle sale date as recorded by the dealer), schedule specific times to remotely start vehicle, locate parked vehicle, check vehicle status (includes service for 5 years from the vehicle sale date as recorded by the dealer) and Wi-Fi hotspot connects up to 10 devices (includes a trial subscription of 3 months or 3 gigabytes, whichever comes first. Wireless Service Plan required after trial subscription ends). Note: Ford Telematics Prep Package Included for Fleet ONLY. SYNC Connect provides data to support telematics services including vehicle location, speed and idle time with optional vehicle diagnostics and maintenance reports. Requires Ford Telematics Powered by Telogis Service (requires subscription for Telogis service. Activate at www.fleet.ford.com) - 2 Driver Configurable 4.2" Color LCD Displays Located in instrument cluster. - Auto-Dimming Rearview Mirror - LED Fog Lamps - LED Signature Lighting - Power & Heated Glass Sideview Mirrors Includes manual-folding, LED turn signal indicators, security approach lamps and black molded in-color caps. - BLIS (Blind Spot Information System) Includes cross-traffic alert. Note: replaces standard integrated blind spot mirrors feature. - Power Liftgate - Radio: AM/FM Stereo w/7 Speakers Includes MP3 capability and speed-compensated volume. - Remote Start System - Dual-Zone Electronic Automatic Temperature Ctrl - 8-Way Power Passenger Seat Includes power lumbar and manual recline.
Powertrain	
998	<p>Engine: 3.5L Ti-VCT V6 (FFV)</p> <p>Not standard equipment in CA Emissions States.</p>

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.

Prepared by: Vikky Garzy Date: 07/03/2018



Fritts Ford
 8000 Auto Drive, Riverside, California, 925044193
 Office: 951-687-2121

2019 Explorer, Sport Utility
 4dr 4x4 XLT(K8D)
 Price Level: 915

Selected Options (cont'd)

Code	Description
	<i>Flexible Fuel Vehicle (FFV) system is standard equipment for vehicles with the 3.5L Ti-VCT V6 engine shipped to Federal Emissions States or Cross Border State dealers and is only available with a Federal emissions system. (FFV system not available with code 422 and requires code 936 or 423 if applicable for California Emissions State dealer destinations). Cross border states include AZ, DC, ID, NH, NV, OH, VA, WV.</i>
44J	Transmission: 6-Speed SelectShift Automatic
STDAX	3.65 Non-Limited Slip Axle Ratio
STDGV	GVWR: 6,160 lbs
Wheels & Tires	
STDTR	Tires: P245/60R18 AS BSW
64C	Wheels: 18" 5-Split-Spoke Sparkle Silver-Painted Aluminum.
Seats & Seat Trim	
8	Unique Cloth Bucket Seats <i>Includes 10-way power driver's seat with power lumbar and recline, 6-way power front passenger seat with manual recline and 4-way manually adjustable driver and front passenger head restraints (2-way up/down when dual-headrest entertainment system (50S) is ordered).</i>
Other Options	
PAINT	Monotone Paint Application
113WB	113" Wheelbase
NONRD	Radio: AM/FM Stereo w/7 Speakers <i>Includes MP3 capability and speed-compensated volume.</i>
153	Front License Plate Bracket

Yucaipa Water Dist

Quote for 2019 Ford Explorer 4x4 per your specs:

July 3, 2018

\$33,999.83
 \$ 8.75 Tire Fee
 \$ 8.50 DMV CVR for Exempt Plates
 \$ 2,634.99 7.75% Sales Tax
 \$36,652.07 Each vehicle

Thank you,

Vikiy Garay
 Fritts Ford fleet/Commercial



Fritts Ford
 8000 Auto Drive, Riverside, California, 925044193
 Office: 951-687-2121

2018 F-150, SuperCab Styleside
 4x4 SuperCab Styleside 6.5' box 145" WB
 XL(X1E)
 Price Level: 840

Selected Options

Code	Description
Base Vehicle	
X1E	Base Vehicle Price (X1E)
Packages	
100A	Equipment Group 100A Base <i>Includes:</i> - Engine: 3.3L V6 PDFI - Includes auto start-stop technology and flex-fuel capability. - Transmission: Electronic 6-Speed Automatic - Includes selectable drive modes: normal/tow-haul/sport. - 3.73 Axle Ratio - GVWR: 6,500 lbs Payload Package - Tires: P265/70R17 OWL A/T - Wheels: 17" Silver Steel - Cloth 40/20/40 Front Seat - Includes 2-way manual driver/passenger adjustment and armrest. - Radio: AM/FM Stereo w/6 Speakers - Includes auxiliary audio input jack (not available with SYNC).
Powertrain	
99B	Engine: 3.3L V6 PDFI <i>Includes auto start-stop technology and flex-fuel capability.</i>
446	Transmission: Electronic 6-Speed Automatic <i>Includes selectable drive modes: normal/tow-haul/sport.</i>
X26	3.73 Axle Ratio
STDGV	GVWR: 6,500 lbs Payload Package
Wheels & Tires	
STDTR	Tires: P265/70R17 OWL A/T
64C	Wheels: 17" Silver Steel
Seats & Seat Trim	
C	Cloth 40/20/40 Front Seat <i>Includes 2-way manual driver/passenger adjustment and armrest.</i>
Other Options	
145WB	145" Wheelbase
STDRD	Radio: AM/FM Stereo w/6 Speakers <i>Includes auxiliary audio input jack (not available with SYNC).</i>
PAINT	Monotone Paint Application
153	Front License Plate Bracket <i>Standard in states requiring 2 license plates. optional to all others.</i>
Fleet Options	

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.

Prepared by: Vikiy Garay Date: 07/03/2018



Fritts Ford
 8000 Auto Drive, Riverside, California, 925044193
 Office: 951-687-2121

2018 F-150, SuperCab Styleside
 4x4 SuperCab Styleside 6.5' box 145" WB
 XL(X1E)
 Price Level: 840

Selected Options (cont'd)

Code	Description
85H	Backup Alarm System REQUIRES valid FIN code.
Emissions	
422	California Emissions System <i>Required code for California Emissions States registration. Optional code for Cross Border State dealers (Arizona, District of Columbia, Idaho, New Hampshire, Nevada, Ohio, Virginia and West Virginia).</i>
93N	Dealer Order For California States Registration NOT AVAILABLE for stock orders. <i>Federal Emissions state dealers ordering a California Emissions system (422) are also required to use order code 93N to attest that the vehicle is to be registered in a California Emissions state. Note: It is a violation of federal law for a Federal Emissions state dealer to sell a vehicle with a California Emissions system for registration in a Federal Emissions state, unless the vehicle also meets EPA standards (i.e. 50-state emissions).</i>
Interior Colors	
CG_01	Dark Earth Gray
Primary Colors	
YZ_01	Oxford White

Yucaipa Water Dist

Quote for 2018 Ford F-150 Super Cab per attached specs:

July 3, 2018

\$24,200.00
 \$ 8.75 Tire Fee
 \$ 8.50 DMV CVR for Exempt Plates
 \$ 1,875.50 7.75% Sales Tax
 \$26,092.72 Each vehicle

Thank you,

Vikly Garay
 Fritts Ford fleet/Commercial

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.

Prepared by: Vikly Garay Date: 07/03/2018



Date: July 10, 2018

From: Joseph Zoba, General Manager

Subject: Discussion Regarding the Preparation of Information to Communicate with Customers, Regulators and Stakeholders

On March 8, 2018, the Board of Directors discussed the implementation of a public relations and outreach program that would include the following elements:

- **Public Relations and Outreach** - Plan and implement a program to gain and enhance the District's presence involving:
 - Social media;
 - Website refresh and upgrades;
 - Video clips;
 - Summary of the District's operations;
 - Historical information; and
 - Near real-time press releases.

On April 3, 2018, the Board of Directors authorized the preparation of a historical summary of the Yucaipa Valley Water District with Crider Public Relations. The material generated from the historical summary will be used to prepare videos and social media clips in the future.

On May 22, 2018, the District staff presented a concept of preparing a Request for Proposals for Digital Creative Services [WM 18-135]. This RFP would include the following scope of services:

- Develop and execute a Search Engine Optimization (SEO) strategy for the District.
- Develop and provide a 4-page monthly e-newsletter including design, content development, and photographs in native file formats approved by the District and as a PDF for distribution by the District.
- Develop a series of new customer on-boarding engagement email messages and content about the District services, meetings, and service options.
- Prepare, develop, and produce 3-minute videos about the following services and activities by the District:
 - Brine disposal;
 - Cross-connection needs and issues;
 - Dual-plumbing requirements for new homes;
 - Emergency preparedness;
 - Environmental protection;
 - General water issues;
 - Geographical Information Systems (GIS);
 - Operations and maintenance activities;
 - Recycled water fill station;
 - Recycled water recharge;
 - Recycled water;

- Reverse osmosis needs and opportunities;
- Science, technology, engineering, and math (STEM) in the water/sewer industry;
- Sewer collection;
- Sewer treatment;
- State Water Project partners (SBVMWD and SGPWA);
- Sustainability goals;
- Water supply sources; and
- Water/sewer operator certifications.
 - Videos to maintain the same theme, branding, color scheme in a raw and finished format.
- An additional five videos may be requested for assorted topics during the fiscal year.
- Develop ten video introductions (15 seconds) and ten video closings in a raw format that can be used to add titles in the future.
- Develop and implement a communication strategy, material, and videos for informing and training recycled water customers that purchase or rent dual-plumbed homes.

At this board workshop, the District staff interpreted the discussion to proceed with a dual-strategy that includes:

- Recruitment of a public relations firm to:
 - Develop and provide guidance for a communication strategy;
 - Develop and provide guidance for a social media campaign;
 - Develop various news releases;
 - Develop content to update the District website;
 - Develop recycled water user materials; and
 - Develop scripts for video content.
- Selection of a public relations firm or a video specialty firm to:
 - Develop short videos about drinking water, recycled water, and sewer service based on the topics discussed on May 22nd.



Date: July 10, 2018

From: Joseph Zoba, General Manager

Subject: Discussion Regarding the Schedule for Meetings and Business Hours During the 2018 Holiday Season

This year Christmas and New Year's Day both fall on typical meeting days of the Yucaipa Valley Water District. December 25th is the day of a regularly scheduled workshop meeting and January 1st would be a regularly scheduled board meeting. The agenda for this workshop has been adjusted to reflect both meetings are canceled.

At the board meeting on July 17, 2018, the District staff would like to request that the District close for regular business on Monday, December 24, 2018 and Monday, December 31, 2018.



Date: July 10, 2018

From: Kathryn Hallberg, Management Analyst

Subject: Consideration of Resolution No. 2018-xx Supporting the Grant Application for a Title XVI Water Reclamation and Reuse Project from the United States Bureau of Reclamation

The District staff is in the process of reviewing a grant opportunity for the Salinity and Groundwater Enhancement (SAGE) project at Wochholz Regional Water Recycling Facility (WRWRF). As part of the Salinity and Groundwater Enhancement (SAGE) Project, the District is planning to further upgrade WRWRF to produce recycled water under Article 5.2 of the Groundwater Recharge Regulations. Under Article 5.2, California regulatory approval requires full advanced treatment including Reverse Osmosis and Advanced Oxidation Processes.

A key requirement for a complete application packet will be a resolution like the draft document attached to this memorandum.

RECLAMATION

Managing Water in the West

Funding Opportunity Announcement No. BOR-DO-18-F011

WaterSMART: Title XVI Water Reclamation and Reuse Projects



U.S. Department of the Interior
Bureau of Reclamation
Policy and Administration
Denver, Colorado

May 2018

RESOLUTION NO. 2018-xx**RESOLUTION OF THE BOARD OF DIRECTORS OF THE YUCAIPA VALLEY WATER DISTRICT SUPPORTING THE APPLICATION FOR A TITLE XVI WATER RECLAMATION AND REUSE PROJECTS GRANT FROM THE BUREAU OF RECLAMATION AND COMMITTING THE DISTRICT TO THE FINANCIAL AND LEGAL OBLIGATIONS ASSOCIATED WITH THE RECEIPT OF THE WATERSMART GRANT FINANCIAL ASSISTANCE REQUIREMENTS**

WHEREAS, the Yucaipa Valley Water District (the "District") is a public agency of the State of California organized and existing pursuant to the provisions of the County Water District Law of this State (Section 30000, et seq. of the Water Code); and

WHEREAS, the mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American people; and

WHEREAS, the Bureau of Reclamation has announced Funding Opportunity Announcement No. BOR-DO-18-F011 seeking projects that focuses on urban and irrigation water supplies through water reuse, thereby improving efficiency, providing flexibility during water shortages, and diversifying the water supply; and

NOW, THEREFORE, the Board of Directors of the Yucaipa Valley Water District hereby RESOLVE, DETERMINE, and ORDER as follows:

1. That the Board of Directors delegates legal authority to the General Manager to enter into a cooperative agreement with the Department of Interior, Bureau of Reclamation for the WaterSMART: Title XVI Water Reclamation and Reuse Projects for Fiscal Year 2018.
2. That the Board of Directors hereby authorizes and supports the participation and submittal by the Yucaipa Valley Water District of the grant funding application.
3. That the Board of Directors supports, and the Yucaipa Valley Water District maintains the capability to provide funding and/or in-kind contributions as specified in the grant funding application.
4. That the Board of Directors hereby directs the General Manager to work with the Bureau of Reclamation to meet the established deadlines for entering into a cooperative agreement.

PASSED AND ADOPTED this 17th day of July 2018.

YUCAIPA VALLEY WATER DISTRICT

Jay Bogh, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager



Date: July 10, 2018

From: Kathryn Hallberg, Management Analyst

Subject: Consideration of Resolution No. 2018-xx Supporting an Application for a Small-Scale Water Efficiency Project for Fiscal Year 2018 Grant from the United States Bureau of Reclamation

The District staff is in the process of reviewing a grant opportunity for the continued installation of automatic meter reading infrastructure (AMI) to be used to collect water usage information quickly and more frequently. This grant focuses on the small-scale on-the-ground projects that seek to conserve, better manage, or otherwise make more efficient use of water supplies. The District's AMI project meets the criteria for this grant.

A key requirement for a complete application packet will be a resolution like the draft document attached to this memorandum.



Funding Opportunity Announcement No. BOR-DO-18-F009

**WaterSMART Grants:
Small-Scale Water Efficiency
Projects for Fiscal Year 2018**



U.S. Department of the Interior
Bureau of Reclamation
Policy and Administration
Denver, Colorado

March 2018

RESOLUTION NO. 2018-xx**RESOLUTION OF THE BOARD OF DIRECTORS OF THE YUCAIPA VALLEY WATER DISTRICT SUPPORTING THE APPLICATION FOR A SMALL-SCALE WATER EFFICIENCY PROJECTS FOR FISCAL YEAR 2018 GRANT FROM THE BUREAU OF RECLAMATION AND COMMITTING THE DISTRICT TO THE FINANCIAL AND LEGAL OBLIGATIONS ASSOCIATED WITH THE RECEIPT OF THE WATERSMART GRANT FINANCIAL ASSISTANCE REQUIREMENTS**

WHEREAS, the Yucaipa Valley Water District (the "District") is a public agency of the State of California organized and existing pursuant to the provisions of the County Water District Law of this State (Section 30000, et seq. of the Water Code); and

WHEREAS, the mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American people; and

WHEREAS, the Bureau of Reclamation has announced Funding Opportunity Announcement No. BOR-DO-18-F009 seeking projects that are small-scale on-the-ground projects that seek to conserve, better manage, or otherwise make more efficient use of water supplies; and

NOW, THEREFORE, the Board of Directors of the Yucaipa Valley Water District hereby RESOLVE, DETERMINE, and ORDER as follows:

1. That the Board of Directors delegates legal authority to the General Manager to enter into a cooperative agreement with the Department of Interior, Bureau of Reclamation for the WaterSMART: Small-Scale Water Efficiency Projects for Fiscal Year 2018.
2. That the Board of Directors hereby authorizes and supports the participation and submittal by the Yucaipa Valley Water District of the grant funding application.
3. That the Board of Directors supports, and the Yucaipa Valley Water District maintains the capability to provide funding and/or in-kind contributions as specified in the grant funding application.
4. That the Board of Directors hereby directs the General Manager to work with the Bureau of Reclamation to meet the established deadlines for entering into a cooperative agreement.

PASSED AND ADOPTED this 17th day of July 2018.

YUCAIPA VALLEY WATER DISTRICT

Jay Bogh, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager

Director Comments



Yucaipa Valley Water District

Adjournment



Yucaipa Valley Water District



FACTS ABOUT THE YUCAIPA VALLEY WATER DISTRICT

Service Area Size: 40 square miles (sphere of influence is 68 square miles)

Elevation Change: 3,140 foot elevation change (from 2,044 to 5,184 feet)

Number of Employees: 5 elected board members
62 full time employees

Operating Budget: Water Division - \$13,397,500
Sewer Division - \$11,820,000
Recycled Water Division - \$537,250
Total Annual Budget - \$25,754,750

Number of Services: 12,434 water connections serving 17,179 units
13,559 sewer connections serving 20,519 units
64 recycled water connections

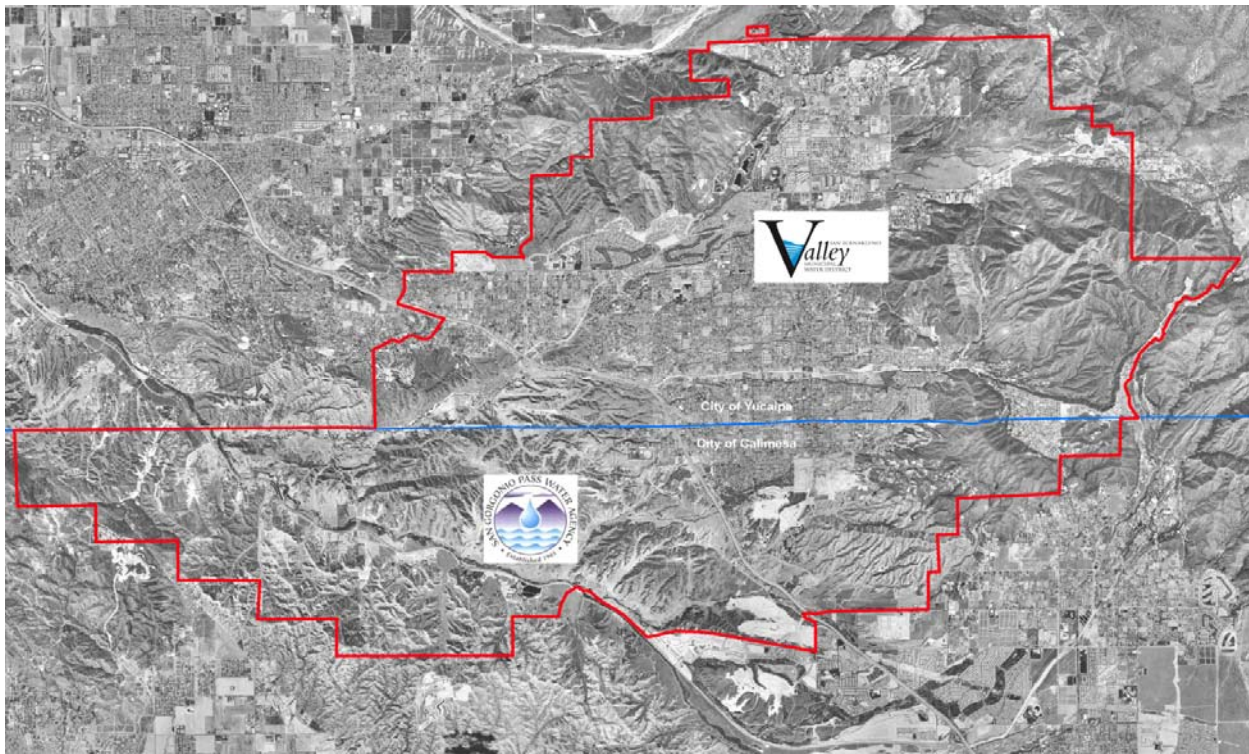
Water System: 215 miles of drinking water pipelines
27 reservoirs - 34 million gallons of storage capacity
18 pressure zones
12,000 ac-ft annual water demand (3.9 billion gallons)
Two water filtration facilities:
- 1 mgd at Oak Glen Surface Water Filtration Facility
- 12 mgd at Yucaipa Valley Regional Water Filtration Facility

Sewer System: 8.0 million gallon treatment capacity - current flow at 4.0 mgd
205 miles of sewer mainlines
5 sewer lift stations
4,500 ac-ft annual recycled water prod. (1.46 billion gallons)

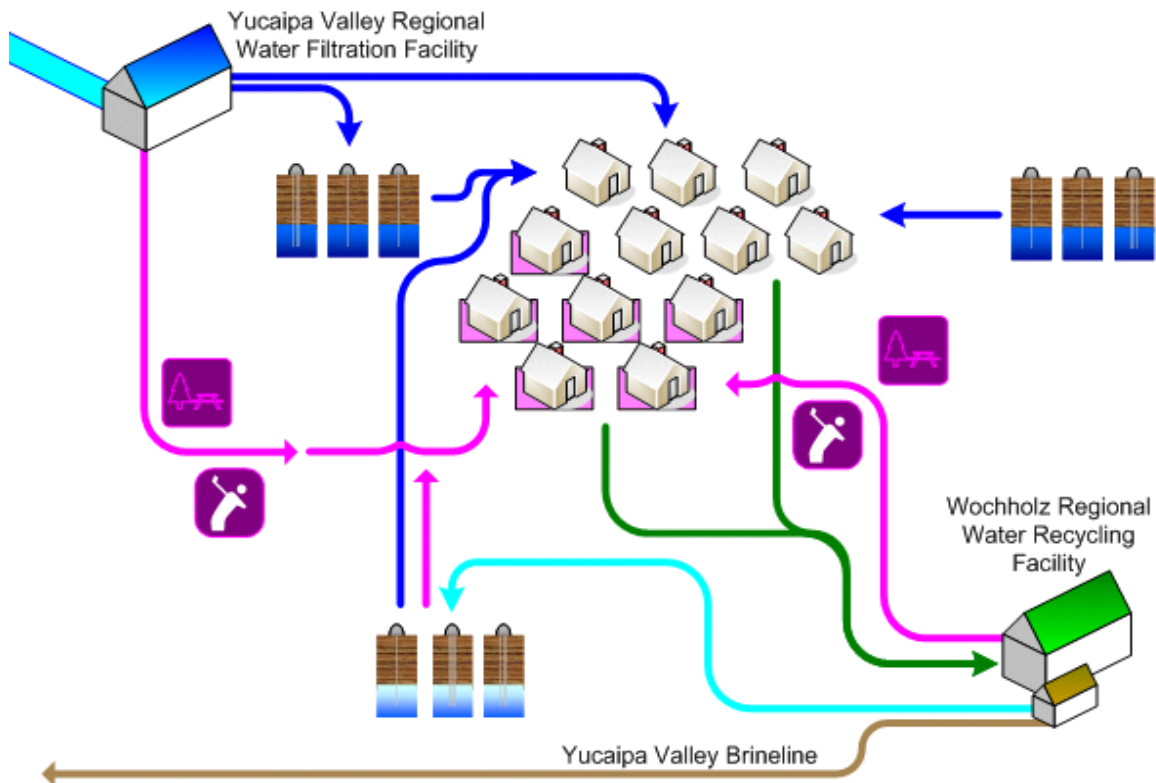
Recycled Water: 22 miles of recycled water pipelines
5 reservoirs - 12 million gallons of storage
1,200 ac-ft annual recycled demand (0.4 billion gallons)

Brine Disposal: 2.2 million gallon desalination facility at sewer treatment plant
1.108 million gallons of Inland Empire Brine Line capacity
0.295 million gallons of treatment capacity in Orange County

State Water Contractors: San Bernardino Valley Municipal Water District
San Gorgonio Pass Water Agency



Sustainability Plan: A Strategic Plan for a Sustainable Future: The Integration and Preservation of Resources, adopted on August 20, 2008.





THE MEASUREMENT OF WATER PURITY

One part per hundred is generally represented by the percent (%).
This is equivalent to about fifteen minutes out of one day.

One part per thousand denotes one part per 1000 parts.
This is equivalent to about one and a half minutes out of one day.

One part per million (ppm) denotes one part per 1,000,000 parts.
This is equivalent to about 32 seconds out of a year.

One part per billion (ppb) denotes one part per 1,000,000,000 parts.
This is equivalent to about three seconds out of a century.

One part per trillion (ppt) denotes one part per 1,000,000,000,000 parts.
This is equivalent to about three seconds out of every hundred thousand years.

One part per quadrillion (ppq) denotes one part per 1,000,000,000,000,000 parts.
This is equivalent to about two and a half minutes out of the age of the Earth (4.5 billion years).





GLOSSARY OF COMMONLY USED TERMS

Every profession has specialized terms which generally evolve to facilitate communication between individuals. The routine use of these terms tends to exclude those who are unfamiliar with the particular specialized language of the group. Sometimes jargon can create communication cause difficulties where professionals in related fields use different terms for the same phenomena.

Below are commonly used water terms and abbreviations with commonly used definitions. If there is any discrepancy in definitions, the District's Regulations Governing Water Service is the final and binding definition.

Acre Foot of Water - The volume of water (325,850 gallons, or 43,560 cubic feet) that would cover an area of one acre to a depth of 1 foot.

Activated Sludge Process – A secondary biological sewer treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen, and consume dissolved nutrients in the wastewater.

Annual Water Quality Report - The document is prepared annually and provides information on water quality, constituents in the water, compliance with drinking water standards and educational material on tap water. It is also referred to as a Consumer Confidence Report (CCR).

Aquifer - The natural underground area with layers of porous, water-bearing materials (sand, gravel) capable of yielding a supply of water; see Groundwater basin.

Backflow - The reversal of water's normal direction of flow. When water passes through a water meter into a home or business it should not reverse flow back into the water mainline.

Best Management Practices (BMPs) - Methods or techniques found to be the most effective and practical means in achieving an objective. Often used in the context of water conservation.

Biochemical Oxygen Demand (BOD) – The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

Biosolids – Biosolids are nutrient rich organic and highly treated solid materials produced by the sewer treatment process. This high-quality product can be used as a soil amendment on farm land or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

Catch Basin – A chamber usually built at the curb line of a street, which conveys surface water for discharge into a storm sewer.

Capital Improvement Program (CIP) – Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

Collector Sewer – The first element of a wastewater collection system used to collect and carry wastewater from one or more building sewer laterals to a main sewer.

Coliform Bacteria – A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere and is generally used as an indicator of sewage pollution.

Combined Sewer Overflow – The portion of flow from a combined sewer system, which discharges into a water body from an outfall located upstream of a wastewater treatment plant, usually during wet weather conditions.

Combined Sewer System– Generally older sewer systems designed to convey both sewage and storm water into one pipe to a wastewater treatment plant.

Conjunctive Use - The coordinated management of surface water and groundwater supplies to maximize the yield of the overall water resource. Active conjunctive use uses artificial recharge, where surface water is intentionally percolated or injected into aquifers for later use. Passive conjunctive use is to simply rely on surface water in wet years and use groundwater in dry years.

Consumer Confidence Report (CCR) - see Annual Water Quality Report.

Cross-Connection - The actual or potential connection between a potable water supply and a non-potable source, where it is possible for a contaminant to enter the drinking water supply.

Disinfection By-Products (DBPs) - The category of compounds formed when disinfectants in water systems react with natural organic matter present in the source water supplies. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite

Drought - a period of below average rainfall causing water supply shortages.

Dry Weather Flow – Flow in a sanitary sewer during periods of dry weather in which the sanitary sewer is under minimum influence of inflow and infiltration.

Fire Flow - The ability to have a sufficient quantity of water available to the distribution system to be delivered through fire hydrants or private fire sprinkler systems.

Gallons per Capita per Day (GPCD) - A measurement of the average number of gallons of water use by the number of people served each day in a water system. The calculation is made by dividing the total gallons of water used each day by the total number of people using the water system.

Groundwater Basin - An underground body of water or aquifer defined by physical boundaries.

Groundwater Recharge - The process of placing water in an aquifer. Can be a naturally occurring process or artificially enhanced.

Hard Water - Water having a high concentration of minerals, typically calcium and magnesium ions.

Hydrologic Cycle - The process of evaporation of water into the air and its return to earth in the form of precipitation (rain or snow). This process also includes transpiration from plants, percolation into the ground, groundwater movement, and runoff into rivers, streams and the ocean; see Water cycle.

Infiltration – Water other than sewage that enters a sewer system and/or building laterals from the ground through defective pipes, pipe joints, connections, or manholes. Infiltration does not include inflow. See *Inflow*.

Inflow - Water other than sewage that enters a sewer system and building sewer from sources such as roof vents, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm drains and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include infiltration. See *Infiltration*.

Inflow / Infiltration (I/I) – The total quantity of water from both inflow and infiltration.

Mains, Distribution - A network of pipelines that delivers water (drinking water or recycled water) from transmission mains to residential and commercial properties, usually pipe diameters of 4" to 16".

Mains, Transmission - A system of pipelines that deliver water (drinking water or recycled water) from a source of supply the distribution mains, usually pipe diameters of greater than 16".

Meter - A device capable of measuring, in either gallons or cubic feet, a quantity of water delivered by the District to a service connection.

Overdraft - The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin. This pumping results in a depletion of the groundwater in the basin which has a net effect of lowering the levels of water in the aquifer.

Peak Flow – The maximum flow that occurs over a specific length of time (e.g., daily, hourly, instantaneously).

Pipeline - Connected piping that carries water, oil or other liquids. See Mains, Distribution and Mains, Transmission.

Point of Responsibility, Metered Service - The connection point at the outlet side of a water meter where a landowner's responsibility for all conditions, maintenance, repairs, use and replacement of water service facilities begins, and the District's responsibility ends.

Potable Water - Water that is used for human consumption and regulated by the California Department of Public Health.

Pressure Reducing Valve - A device used to reduce the pressure in a domestic water system when the water pressure exceeds desirable levels.

Pump Station - A drinking water or recycled water facility where pumps are used to push water up to a higher elevation or different location.

Reservoir - A water storage facility where water is stored to be used at a later time for peak demands or emergencies such as fire suppression. Drinking water and recycled water systems will typically use concrete or steel reservoirs. The State Water Project system considers lakes, such as Shasta Lake and Folsom Lake to be water storage reservoirs.

Runoff - Water that travels downward over the earth's surface due to the force of gravity. It includes water running in streams as well as over land.

Sanitary Sewer System - Sewer collection system designed to carry sewage, consisting of domestic, commercial, and industrial wastewater. This type of system is not designed nor intended to carry water from rainfall, snowmelt, or groundwater sources. See *Combined Sewer System*.

Sanitary Sewer Overflow – Overflow from a sanitary sewer system caused when total wastewater flow exceeds the capacity of the system. See *Combined Sewer Overflow*.

Santa Ana River Interceptor (SARI) Line – A regional brine line designed to convey 30 million gallons per day of non-reclaimable wastewater from the upper Santa Ana River basin to the sewer treatment plant operated by Orange County Sanitation District.

Secondary Treatment – Biological sewer treatment, particularly the activated-sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

Supervisory Control and Data Acquisition (SCADA) - A computerized system which provides the ability to remotely monitor and control water system facilities such as reservoirs, pumps and other elements of water delivery.

Service Connection - The water piping system connecting a customer's system with a District water main beginning at the outlet side of the point of responsibility, including all plumbing and equipment located on a parcel required for the District's provision of water service to that parcel.

Sludge – Untreated solid material created by the treatment of sewage.

Smart Irrigation Controller - A device that automatically adjusts the time and frequency which water is applied to landscaping based on real-time weather such as rainfall, wind, temperature and humidity.

Special District - A political subdivision of a state established to provide a public services, such as water supply or sanitation, within a specific geographic area.

Surface Water - Water found in lakes, streams, rivers, oceans or reservoirs behind dams.

Total Suspended Solids (TSS) – The amount of solids floating and in suspension in water or sewage.

Transpiration - The process by which water vapor is released into the atmosphere by living plants.

Trickling Filter – A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in primary treated sewage as it trickles over them.

Underground Service Alert (USA) - A free service that notifies utilities such as water, telephone, cable and sewer companies of pending excavations within the area (dial 8-1-1 at least 2 working days before you dig).

Urban Runoff - Water from city streets and domestic properties that typically carries pollutants into the storm drains, rivers, lakes, and oceans.

Valve - A device that regulates, directs or controls the flow of water by opening, closing or partially obstructing various passageways.

Wastewater – Any water that enters the sanitary sewer.

Water Banking - The practice of actively storing or exchanging in-lieu surface water supplies in available groundwater basin storage space for later extraction and use by the storing party or for sale or exchange to a third party. Water may be banked as an independent operation or as part of a conjunctive use program.

Water cycle - The continuous movement water from the earth's surface to the atmosphere and back again; see Hydrologic cycle.

Water Pressure - Pressure created by the weight and elevation of water and/or generated by pumps that deliver water to the tap.

Water Service Line - The pipeline that delivers potable water to a residence or business from the District's water system. Typically the water service line is a 1" to 1½" diameter pipe for residential properties.

Watershed - A region or land area that contributes to the drainage or catchment area above a specific point on a stream or river.

Water Table - The upper surface of the zone of saturation of groundwater in an unconfined aquifer.

Water Transfer - A transaction, in which a holder of a water right or entitlement voluntarily sells/exchanges to a willing buyer the right to use all or a portion of the water under that water right or entitlement.

Water Well - A hole drilled into the ground to tap an underground water aquifer.

Wetlands - Lands which are fully saturated or under water at least part of the year, like seasonal vernal pools or swamps.

Wet Weather Flow – Dry weather flow combined with stormwater introduced into a combined sewer system, and dry weather flow combined with infiltration/inflow into a separate sewer system.





COMMONLY USED ABBREVIATIONS

AQMD	Air Quality Management District
BOD	Biochemical Oxygen Demand
CARB	California Air Resources Board
CCTV	Closed Circuit Television
CWA	Clean Water Act
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FOG	Fats, Oils, and Grease
GPD	Gallons per day
MGD	Million gallons per day
O & M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
POTW	Publicly Owned Treatment Works
PPM	Parts per million
RWQCB	Regional Water Quality Control Board
SARI	Santa Ana River Inceptor
SAWPA	Santa Ana Watershed Project Authority
SBVMWD	San Bernardino Valley Municipal Water District
SCADA	Supervisory Control and Data Acquisition system
SSMP	Sanitary Sewer Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
WDR	Waste Discharge Requirements
YVWD	Yucaipa Valley Water District