

**AGENDA**

**IRVINE RANCH WATER DISTRICT  
BOARD OF DIRECTORS  
REGULAR MEETING**

December 16, 2019

**PLEDGE OF ALLEGIANCE**

**CALL TO ORDER**                      5:00 p.m., Board Room, District Office  
15600 Sand Canyon Avenue, Irvine, California

**ROLL CALL**                              Directors Reinhart, Matheis, Swan, and Withers and President LaMar

**NOTICE**

If you wish to address the Board on any item, including Consent Calendar items, please file your name with the Secretary. Forms are provided on the lobby table. Remarks are limited to three minutes per speaker on each subject. Consent Calendar items will be acted upon by one motion, without discussion, unless a request is made for specific items to be removed from the Calendar for separate action.

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**COMMUNICATIONS TO THE BOARD**

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1.     A. Written:

      B. Oral:

2.     ITEMS RECEIVED TOO LATE TO BE AGENDIZED

      Recommendation: Determine the need to discuss and/or take immediate action on item(s).

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**PRESENTATION**                              **Resolution No. 2019-31**

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3.     RESOLUTION COMMENDING TONY MOSSBARGER FOR HIS 26 YEARS OF SERVICE TO THE DISTRICT

      Recommendation: Adopt a resolution by title recognizing Tony Mossbarger for his 26 years of service to the District.

Res. No. 2019-

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**PUBLIC HEARING**

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4.     CHANGES TO IRWD RULES AND REGULATIONS

      Recommendation:

- a.     Open the hearing.
- b.     Inquire of the Secretary how the hearing was noticed.
- c.     Receive and file the affidavit of posting and proof of publication.
- d.     Inquire of the Secretary if there have been any written notifications.
- e.     Request the Executive Director of Finance and Administration to provide a report.
- f.     Hear any person who wishes to address the Board concerning the amended resolution.
- g.     Inquire of the Board if it has any comments or questions.
- h.     Close the hearing, and adopt a resolution making changes to IRWD's Rules and Regulations.

Res. No. 2019-

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**CONSENT CALENDAR**

**Resolution No. 2019-31**

**Items 5-13**

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5. RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS

Recommendation: That the Board ratify/approve the meetings and events for Mary Aileen Matheis, Douglas Reinhart, Peer Swan, and Steven LaMar as described.

6. MINUTES OF BOARD MEETING

Recommendation: That the minutes of the November 25, 2019 Regular Board meeting be approved as presented.

7. NOVEMBER 2019 TREASURY REPORT

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Summary of Fixed and Variable Rate Debt, and Disclosure Report of Reimbursements to Board members and staff; approve the November 2019 Summary of Payroll ACH payments in the total amount of \$2,358,411; and approve the November 2019 Accounts Payable Disbursement Summary of Warrants 403541 through 404224 Workers' Compensation Distributions, wire transfers, Payroll withholding distributions and voided checks in the total amount of \$19,202,582.

8. TRUCK MOUNTED SEWER JETTER CONTRACT AWARD

Recommendation: That the Board authorize the General Manager to execute a contract with Nixon-Egli Equipment Company, Inc. in the amount of \$187,051.38 for the purchase of one 747-Tk Eco Truck Jet.

9. SAN CANYON PROFESSIONAL CENTER PHASE II CONTRACT CHANGE ORDER NO. 8

Recommendation: That the Board authorize the General Manager to execute Contract Change Order No. 8 in the amount of \$209,900.97 with KPRS Construction Services for the Sand Canyon Professional Center Phase II, Project 06210.

10. MICHELSON WATER RECYCLING PLANT BIOSOLIDS AND ENERGY RECOVERY FACILITIES LANDSCAPING FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the MWRP Biosolids And Energy Recovery Facilities Landscaping Project 04286, authorize the General Manager to file a Notice of Completion, and authorize the payment of the retention 35 days after the date of recording the notice of completion.

<b>CONSENT CALENDAR</b>	<b>Resolution No. 2019-31</b>	<b>Items 5-13</b>
11.	<u>WATERSMART VARIANCE NO. 1</u>  Recommendation: That the Board authorize the General Manager to execute Variance No. 1 to the Professional Services Agreement between IRWD and WaterSmart Software, Inc. in the amount of \$243,850.	
12.	<u>FY 2018-19 COMPREHENSIVE ANNUAL FINANCIAL REPORT – LIN / CLARY</u>  Recommendation: Receive and file.	
13.	<u>ADOPTION OF A REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES</u>  Recommendation: That the Board adopt a resolution superseding Resolution No. 2019-15 and adopt a resolution revising the schedule of positions and Salary rate ranges.	

**ACTION CALENDAR**

14.	<u>IRWD POLICY ON DISCONTINUING RESIDENTIAL WATER SERVICE</u>  Recommendation: That the Board adopt a resolution approving a Policy on Discontinuing Residential Water Service.	Reso. No. 2019-
15.	<u>REVIEW OF 2019 GOVERNMENT RELATIONS ACTIVITIES AND 2020 LEGISLATIVE AND REGULATORY ISSUES PLANNING</u>  Recommendation: That the Board provide input on the proposed 2020 regional, state and federal legislative issues of interest to IRWD, and receive and file the proposed “Initial 2020 Legislative and Regulatory Resource Allocation Plan” and the “Legislative / Regulatory Issues and Activities of High Concern to IRWD in 2020.”	
16.	<u>FLEMING ZONE 8 TANK AND ZONE 8 TO 9 BOOSTER PUMP STATION CONSULTANT SELECTION</u>  Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Tetra Tech in the amount of \$878,000 for engineering design services for the Fleming Zone 8 Tank and Zone 8 to 9 Booster Pump Station, Project 10101.	

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**ACTION CALENDAR**

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17. ANNUAL BOARD OF DIRECTORS' FEES

Recommendation: That the Board either accept or decline the five (5%) percent compensation increase for calendar year 2020.

18. ELECTION OF OFFICERS FOR 2020

Recommendation: That an election be conducted of the President and Vice President of the Board of Directors of the Irvine Ranch Water District.

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**OTHER BUSINESS**

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Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, and make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request staff to report back at a subsequent meeting concerning any matter, or direct staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' Comments.

19. General Manager's Report

20. Directors' Comments

21. Receive oral update(s) from District liaison(s) regarding communities within IRWD's service area and provide information on relevant community events.

22. Closed Sessions

1. Threat to Public Services or Facilities (Gov. Code § 54957(a)) – Consultation with legal counsel and IRWD's security assessment consultant Tevora

2. PUBLIC EMPLOYEE APPOINTMENT – Pursuant to Government Code Section 54956(b)  
Title: Legal Counsel

23. Adjourn

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Irvine Ranch Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance to the Board of Directors Room of the District Office. The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the scheduled meeting. This agenda can be obtained in alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.



December 16, 2019  
Prepared and  
submitted by: C. Clary  
Approved by: Paul A. Cook



PRESENTATION

RESOLUTION COMMENDING TONY MOSSBARGER FOR HIS  
26 YEARS OF SERVICE TO THE IRVINE RANCH WATER DISTRICT

SUMMARY:

As Mr. Tony Mossbarger will be retiring from IRWD, staff will present a resolution at the meeting to commend him for over 26 years of dedicated service to the District.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2019-

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY,  
CALIFORNIA COMMENDING MR. ANTHONY "TONY" MOSSBARGER  
FOR HIS 26 YEARS OF DEDICATED AND LOCAL SERVICE TO THE  
IRVINE RANCH WATER DISTRICT

LIST OF EXHIBITS:

Exhibit "A" – Resolution

Note: This page is intentionally left blank.

EXHIBIT "A"

RESOLUTION NO. 2019-

RESOLUTION OF THE BOARD OF DIRECTORS  
OF IRVINE RANCH WATER DISTRICT COMMENDING  
ANTHONY "TONY" MOSSBARGER FOR HIS DEDICATED AND  
LOYAL SERVICE TO THE DISTRICT

WHEREAS, Tony began his career with the Irvine Ranch Water District on October 12, 1993 as Information Services Manager, and on January 1, 2003, was promoted to Director of Administrative Services; and

WHEREAS, Tony has provided the District with over 26 years of dedicated and loyal service; and

WHEREAS, Tony has contributed tremendous value with his knowledge and expertise implementing, upgrading, and replacing antiquated systems with current technology including: installing and maintaining e-mail and calendar systems; accessing internet, intranet, and mobile technologies; transiting from pagers to cellphones; adopting Microsoft Windows and Office; implementing of Enterprise Systems including financial and customer billing; and adopting electronic payments and bill presentment systems in which IRWD customers participate at a rate that is among highest in the utility industry; and

WHEREAS, Tony has been responsible for shaping and promoting several of the customer service processes that have helped to maintain the District's exceptionally high customer satisfaction rate of 97%; and

WHEREAS, Tony has participated annually in the Families Forward food drive where his tireless commitment and compassion have helped to raise awareness about hardships within our community; and

WHEREAS, Tony can always be counted on to do what is right, from reporting broken sprinkler heads (when he's off the clock) throughout the District, to speaking with customers providing them first-hand knowledge about how great it is to be an IRWD customer; and

WHEREAS, Tony was legendary for his exceptionally clean and uncluttered desk where he could then contemplate important Information Services and Customer Service Department business. In Tony's honor, each year February 20<sup>th</sup> will be designated as "Tony Mossbarger Clean Desk Day" at which time employees all will be encouraged to clean their work stations; and

WHEREAS, all employees who know Tony's kindness, generosity, and commitment to excellence and will genuinely miss him.

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors of the Irvine Ranch Water District commends Tony for his long and loyal service, and the dedication that he has rendered to IRWD, which will stand as an example to all employees. On this occasion the Board extends its best wishes to Tony in his retirement.

SIGNED and APPROVED this 16th day of December 2019.

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President, IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

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Secretary, IRVINE RANCH WATER DISTRICT

December 16 2019  
Prepared by: C. Smithson  
Submitted by: C. Clary  
Approved by: Paul A. Cook



PUBLIC HEARING

CHANGES TO IRWD RULES AND REGULATIONS

SUMMARY:

Staff has compiled proposed changes to the District's Rules and Regulations for Water, Sewer, Recycled Water, and Natural Treatment System Service. The proposed changes include both substantive and non-substantive changes. The substantive changes proposed in this update are highlighted as follows:

- Updates definitions, responsibilities and requirements associated with the Fats, Oils and Grease Program;
- Updates monitoring and inspection requirements for the recycled water system; and
- Updates discontinuance of water service requirements consistent with new state law.

Non-substantive changes consist of expanded, clarified and updated definitions.

This item was included in the November 25, 2019 agenda to provide a first reading of the resolution and the Secretary was directed to place the resolution on the agenda for the December 16, 2019 meeting of the Board of Directors for a second reading, hearing and adoption.

OUTLINE OF PROCEEDINGS

President: Declare this to be the time and place for the hearing on the Resolution.

President: Request the Secretary to report the manner by which the Notice of Hearing was given.

Secretary: The Notice of this hearing was published in the Orange County Register on November 10, 2019 and December 1, 2019. The notice was also posted in the District office on December 2, 2019. The Secretary presents an Affidavit of Posting and Proof of Publication for the Board to receive and file.

Board: RECOMMENDED MOTION: RECEIVE AND FILE THE AFFIDAVIT OF POSTING AND THE PROOF OF PUBLICATION PRESENTED BY THE SECRETARY.

President: Inquire of the Secretary whether there have been any written communications.

Secretary: Respond.

President: Request a report from the Executive Director of Finance and Administration.

- Exec. Dir. of Finance and Adm. Report and describe the proposed revisions and indicate that the clarifications and revisions to the Rules and Regulations are summarized in Exhibit "B".
- President: Inquire whether anyone is present who wishes to address the Board concerning the amended Resolution.
- President: Inquire whether there are any comments or questions from members of the Board of Directors.
- President: Ask for a motion to close the hearing, a second reading of the resolution be read by title only, that further reading of the resolution be waived, and adoption of the resolution.
- Board: RECOMMENDED MOTION: THAT THE HEARING BE CLOSED, THAT THE SECOND READING OF THE RESOLUTION BE READ BY TITLE ONLY AND THAT FURTHER READING OF THE RESOLUTION BE WAIVED, AND THAT THE FOLLOWING RESOLUTION BE ADOPTED BY TITLE:
- President: Request that the Secretary read the resolution by title only.
- Secretary: Read the title.

RESOLUTION NO. 2019-

RESOLUTION RESCINDING RESOLUTION NO. 2018-14 AND ESTABLISHING REVISED RULES AND REGULATIONS OF THE IRVINE RANCH WATER DISTRICT FOR WATER, SEWER, RECYCLED WATER, AND NATURAL TREATMENT SYSTEM SERVICE AND EXHIBIT "A" THERETO.

BACKGROUND:

From time to time, staff proposes changes to IRWD's Rules and Regulations. In this process, formatting and presentation changes are included and some wording and definitions have been updated to promote consistent and conforming nomenclature throughout the document. Recommended changes are included in the attached redlined document provided in Exhibit "A" and will be adopted by resolution as provided in Exhibit "B". Recommended changes include the following:

Updates definitions, responsibilities and requirements associated with the Fats, Oils and Grease Program:

Updates responsibilities and requirements in the event of sewer system overflows, private lateral sewer discharges and requirements for transferability, duration and modification of terms and conditions on permits.

Updates monitoring and inspection requirements for the recycled water system:

Updates include monitoring program, entry, inspections and testing, supervisor training and duties, notification process, compliance, enforcement process and penalties.

Updates discontinuance of water service requirements:

A new law SB 998 is effective February 2020. The law specifies that water service discontinuance can be suspended if an adult living at the facility appeals the water bill or when acceptable proof of medical and financial circumstances are submitted to the District and the customer agrees to an alternative payment schedule.

IRWD's General Counsel has reviewed the proposed changes.

FISCAL IMPACTS:

The program is currently being administered, and the proposed revisions are not expected to result in a significant fiscal impact to IRWD.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act (CEQA), Code of Regulations, Title 14, Chapter 3, Section 15378.

LIST OF EXHIBITS:

Exhibit "A" – Redlined Proposed Rules and Regulations

Exhibit "B" – Resolution Establishing Revised Rules and Regulations

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RULES AND REGULATIONS  
FOR WATER, SEWER,  
RECYCLED WATER,  
AND NATURAL TREATMENT SYSTEM SERVICE



Irvine Ranch Water District  
Orange County, California

~~Board~~  
~~Approved~~ PROP  
OSD ~~May 29,~~  
2018

December 16,  
2019



RULES AND REGULATIONS FOR WATER, SEWER,  
RECYCLED WATER AND NATURAL TREATMENT SYSTEM SERVICE

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Exhibits:

- A. Maps
  - A.1 Water Improvement Districts
  - A.2 Sewer Improvement Districts
  - A.3 Cities within IRWD Boundaries
- B. Rates and Charges for Water, Sewer, and Recycled Water Service (Separate Document)
- C. Maximum Allowable Local Limits



## SECTION 1: GENERAL

**Availability of Service Subject to these Rules and Regulations.** Water, sewer, recycled water, and natural treatment system service by the Irvine Ranch Water District, subject to the availability of facilities, adequate capacity in facilities, or funds or financing for the construction thereof, or all of the foregoing, is available on the following terms and conditions including all fees and charges established under Exhibit B, Schedule of Rates and Charges. Service will be made available to each member of the public or each segment of the public on the same basis to the extent applicants, owners, or customers are similarly situated and desire to be served and may be served in an equal and comparable manner.

**Boundaries.** The boundaries of the District and its Improvement Districts are depicted on Exhibits A-1 (Potable Water System Improvement Districts) and A-2 (Sewer System Improvement Districts). The cities and villages within the District's boundaries are depicted on Exhibit A-3. Upon a change in the boundaries of the District or any of its Improvement Districts, Exhibits A-1, A-2, and A-3 will be revised and replaced as necessary. The area served by the District is discussed further in Section 1.

**Improvement Districts.** The Improvement Districts have been formed for the purpose of funding the construction and acquisition of facilities and capacities to provide water, sewer, and recycled water service. The Board may consolidate or form additional Improvement Districts or annex additional areas to any Improvement District.

**Contracts.** Contracts with the District may also provide for the funding of construction and acquisition of facilities for water, sewer, recycled water or natural treatment system service. Such contracts require the construction of necessary facilities or the payment of the capital cost and annual cost of operating and maintaining such facilities.

**Facilities Plan.** The plans for facilities to be constructed within the District and any Improvement District are intended to be an integrated part of the District's Water Resources Master Plan, Sewer Master Plan, Natural Treatment System Master Plan, Sub-Area Master Plans, and addenda thereto, and are referred collectively to as "the Plan."

**Recycled Water.** The State of California mandates conservation of water resources whenever possible, and accordingly the Plan includes collecting, treating, and reclaiming sewage and wastewater and beneficially reusing the resulting recycled water. The District intends that recycled water use comply with any and all applicable Federal, State, and local laws, regulations, and other governmental requirements. If the District determines that recycled water service is feasible under Section 4.12, the applicant, owner, or customer will be required to utilize recycled water service.

**Urban Runoff – Natural Treatment System.** The District also intends, in cooperation with the County and Cities, to treat certain urban runoff through the operation, maintenance and monitoring of constructed water quality wetlands and bioretention cells, known as Natural Treatment Systems. Natural Treatment Systems will be sited in various locations in the District, as outlined in the Natural Treatment System Master Plan or as otherwise determined by the District. Use of the Natural Treatment System for urban runoff treatment is subject to the

requirements of these Rules and Regulations. The District will determine the level of treatment. Property owners and developers will be responsible for any urban runoff minimization or other best management practices that may be required by the County or Cities, notwithstanding the operation of the District's natural treatment systems.

**Land Use.** The District constructs facilities in concert with environmental and land use decisions. The District neither determines nor intends to determine or precipitate land use decisions or the accomplishment of any plans of development of various owners of undeveloped property within the District.

**Sewer Service Requires Water Service.** In most instances, sewer service is provided only where the District has determined that it will also be providing permanent water service to the applicant, customer, or property owner.

**Variations.** The District may modify by special contract the requirements of these Rules and Regulations, including but not limited to applicable rates and charges, only upon the determination that unique circumstances exist.

## SECTION 2: DEFINITIONS

For the purpose of these Rules and Regulations, the following terms, phrases, words, and their derivations will have the meaning given below. When not inconsistent with the context, words used in the present tense include the future, words in the plural include the singular number, and words in the singular include the plural number. The word “shall” is always mandatory and not merely directory.

**AIR-GAP SEPARATION** means a physical break between a supply pipe and a receiving vessel. The air gap shall be at least double the diameter of the supply pipe, measured vertically above the top rim of the vessel, and in no case less than one inch.

**APPLICANT** means any person, firm, corporation, association, or agency who desires to obtain water, sewer, recycled water and/ or natural treatment system service from the District.

**APPLICATION RATE** means the rate at which irrigation water, expressed in inches per hour, is applied to a DESIGN AREA.

**APPROVED CHECK VALVE** means a check valve that seats readily and completely. It must be carefully machined to have free moving parts and assured water tightness. The face of the closure element and valve seat must be bronze, composition, or other non-corrodible material that will seat tightly under all prevailing conditions of field use. Pins and bushings shall be of bronze or other non-corrodible, non-sticking material, machined for easy, dependable operation. The closure element (e.g., clapper) shall be internally weighted or otherwise internally equipped to promote rapid and positive closure in all sizes where this feature is obtainable.\*

**APPROVED DOUBLE CHECK VALVE ASSEMBLY** means an assembly of at least two independently acting approved check valves including tightly closing shut-off valves on each side of the check valve assembly and suitable leak-detector drains plus connections available for testing the water tightness of each check valve.

**APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE** means a device incorporating two or more check valves and an automatically operating differential relief valve located between the two checks, two shut-off valves, and equipped with necessary appurtenances for testing. The device shall operate to maintain the pressure in the zone between two check valves, less than the pressure on the District’s water supply side of the device. At cessation of normal flow, the pressure between the check valves shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve shall operate to maintain this reduced pressure by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less, the relief valve shall be open to the atmosphere thereby providing an air gap in the device. To be approved, these devices must be readily accessible for maintenance and testing, and installed in a location where no part of the valve will be submerged.

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\* Devices used within the District shall be included on the list of devices approved by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California.

**AUTOMATIC SYSTEM** means with reference to landscape irrigation systems; automatic controllers, valves, and associated equipment required for the programming of effective water application rates when using recycled water.

**AUXILIARY WATER SUPPLY** means any water supply on or available to the premises other than the District's potable water and recycled water supplies.

**BACKWATER DEVICE** means a unit that permits flow in lines normally under open channel flow conditions, such as sewers, to occur in one direction only by mechanically blocking the flow or by providing a pressure relief opening such that flow may not occur in the uphill direction, as approved by the District and local governing agencies.

**BASE INDEX** means a water budget applicable for commercial, industrial or public authority usage.

**BUILDING SEWER** - see "UPPER LATERAL."

**BOARD** means the Board of Directors of the District.

**COMMODITY CHARGE** means a charge imposed by the District for all water used by general metered, temporary, and agricultural customers, whether such water used is actually metered or only estimated.

**CONNECTION FEE** means a charge imposed by the District for obtaining water, sewer, recycled water or natural treatment system service from the District, including charges for capacity. Connection fees are set forth in Exhibit B, Schedule of Rates and Charges.

**CONSTRUCTION MANUAL** means the District's "Construction Manual for the Construction of Water, Sewer, and Recycled Water Facilities," as amended from time to time.

**CONTINGENCY PLAN** is the Water Shortage Contingency Plan adopted by the District, as amended from time to time.

**CROSS CONNECTION** means any unprotected connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved as safe, wholesome, and potable for human consumption.

**CUSTOMER** means any person, firm, corporation, association, or agency that has a permit to obtain water, sewer, recycled water and/or natural treatment system service from the District.

**DESIGN AREA** means the specific land area or facilities designated to be served through on-site facilities when used in reference to recycled water systems.

DISTRICT means the Irvine Ranch Water District.

IMPROVEMENT DISTRICT means any of the Improvement Districts of the District existing or hereafter established.

INFILTRATION RATE means the rate at which the soil will accept water, expressed in inches per hour, during the irrigation period.

IRRIGATION SYSTEM means all equipment and materials required for applying irrigation water to the design area from the service connection including all piping, valves, sprinkler heads, and appurtenances.

LATERAL CONNECTION means the point of connection of the customer's upper lateral with the lower lateral of the District.

LOWER LATERAL means the District's facility between its collection system and the lateral connection, which is normally the exterior boundary of the easement or the street or access road right-of-way.

LOWER LATERAL CHARGE means a charge imposed by the District for installation by the District of a lower lateral.

MANAGER or GENERAL MANAGER means the General Manager of the District or the person authorized by the Board or the General Manager to act for him.

NATURAL TREATMENT SYSTEM means the network of constructed water quality wetlands and bioretention cells providing treatment of urban runoff. Natural treatment systems are not flood control facilities.

NON-POTABLE WATER means that water that has not been treated for human consumption in conformance with the standards referred to in the definition of POTABLE WATER, below, such as untreated imported water received from the Metropolitan Water District of Southern California, non-potable well water, and water collected in the District's reservoirs from natural runoff.

NON-RECYCLABLE SEWAGE means any and all liquid or solid waste substance other than recyclable sewage emanating from within the District, including but not limited to liquid or solid waste substance from any production, manufacturing, or processing operation. Non-recyclable sewage includes any liquid or solid substance that cannot be treated or disposed of by the then-existing facilities of the District's Reclamation Plant for the treatment or disposal of sewage by reason of the design thereof, applicable waste discharge or other requirements, actual or possible increased operation and maintenance costs, or possible damage to the District's facilities.

NON-RECYCLABLE WASTEWATER SEWAGE FACILITIES means facilities used in the collection of wastewater that is not to be treated for direct beneficial use or a controlled use that otherwise would not occur. Such non-recyclable wastewater sewage facilities shall generally be limited to industrial and commercial wastes that would have a



detrimental effect on the treatment processes of the reclamation plant and the resultant recycled water.

NTS DESIGN GUIDELINES means the District’s “Natural Treatment System Design Guidelines,” as amended from time to time

OFFSITE FACILITIES means facilities under the control of the District including but not limited to water, sewer, and recycled water pipelines, reservoirs, pumping stations, fire hydrants, manholes, valves, connections, supply interties, treatment facilities, natural treatment systems and other appurtenances and property up to the point of connection with the customer’s facilities.

ONSITE FACILITIES means facilities under the control of the applicant, owner, or customer including but not limited to residential, commercial, and industrial building water and sewage systems, landscape irrigation systems, and agricultural irrigation systems. For water and recycled water service, the onsite facilities shall be those downstream of the service connection, which shall normally be the downstream end of the meter tailpiece.

ONSITE RECYCLED WATER SUPERVISOR means a qualified person designated by a recycled water user and approved by the District. This person shall be knowledgeable in the construction and operation of onsite recycled water and irrigation systems and in the application of the guidelines, criteria, standards, and rules and regulations for recycled water.

PERMIT means a processed and approved application and agreement with the District for service.

PERSON means any individual, firm, partnership, association, company, or organization of any kind.

PLAN means the plans for facilities to be constructed within the District and each of the existing and future Improvement Districts are intended to be an integrated part of the District’s Water Resources Master Plan, Sewer Master Plan, Natural Treatment System Master Plan, Sub-Area Master Plans; and addenda thereto, which are approved from time to time.

POTABLE WATER means that water furnished to the customer which meets applicable local, state and federal standards for drinking water.

PRETREATMENT means treatment that the District may require prior to permitting discharge of sewage into any District sewage facility if necessary to insure compliance by the District with these Rules and Regulations and any and all applicable Federal, State, or local statues, ordinances, regulations, contracts, or all of the foregoing, individually or collectively, or if determined by the District to be necessary to protect the facilities of the District from any possible present or future damage.

PROCEDURES GUIDE means the District’s “Procedural Guidelines and General Design Requirements,” as amended from time to time.

PROPERTY OWNER or OWNER means the holder of legal title, contract purchaser, or lessee under a lease with an unexpired term of more than one (1) year jointly with the holder of title.

RECLAMATION PLANT means District treatment facilities that receive and treat wastewater for beneficial uses.

RECYCLABLE SEWAGE means wastewater that can be treated and recycled by the District's facilities so as to be usable for beneficial purposes.

RECYCLED WATER means disinfected tertiary recycled water which is produced by the treatment of wastewater by a District reclamation plant and is suitable for direct beneficial uses in accordance with California Administrative Regulations Title 22, Division 4, Chapter 3.

RECYCLED WATER DISTRIBUTION SYSTEM means individually or collectively any recycled water facility or facilities which are installed by the District or financed, constructed, and dedicated to the District by an applicant, owner, or customer or which are the result of local initiative and financing in tracts and subdivisions, as well as commercial or industrial developments, and which are typically less than 6" in diameter. The District shall determine what facilities are part of a distribution system from time to time as necessary. The District's determination in this regard shall be final and conclusive.

RECYCLED WATER FACILITIES means facilities used in the storage, pumping, and conveyance of recycled water. The term recycled water facilities may be used synonymously with the term irrigation water facilities in the context of references to the District's irrigation water system master plan.

RECYCLED WATER SERVICE CONNECTION means the point of connection of the customer's recycled water line with the recycled water service line of the District, which will normally be the downstream end of the recycled water meter tailpiece.

RECYCLED WATER SERVICE LINE means the District's facility between its recycled water distribution system and the recycled water service connection.

RECYCLED WATER SERVICE LINE CHARGE means a charge imposed by the District for installation by the District of recycled water meters and service lines.

RECORD DRAWINGS means drawings that correctly show the completed facilities as constructed or modified (as-built).

RULES AND REGULATIONS means these "Rules and Regulations for Water, Sewer, Recycled Water and Natural Treatment System Service," as amended from time to time.

SECURITY DEPOSIT means monies required to be deposited with the District for the purpose of guaranteeing payment of monthly or bimonthly utility bills rendered for water, sewer, recycled water or natural treatment system service.

SELF-REGENERATIVE WATER SOFTENER means a unit that in removing minerals from water produces a waste containing minerals in greater amounts than those in the influent water.

SEWAGE – see WASTEWATER

SEWER COLLECTION SYSTEM means individually or collectively any sewer facilities which are financed, constructed, and dedicated to the District by an applicant, owner, or customer or which are the result of local initiative and financing in tracts and subdivisions, as well as commercial or industrial developments, and which are typically less than 12” in diameter. Sewer collection systems shall include dry sewers installed by developers prior to construction of trunk sewers. The District shall determine what facilities are part of a collection system from time to time as necessary. The District’s determination in this regard shall be final and conclusive.

SEWER [SEWAGE] FACILITIES means any facilities used in the conveyance, pumping, and treatment of wastewater.

SERVICE CHARGE means a monthly or bimonthly charge established by the District from time to time for water, sewer, recycled water or natural treatment system service. This charge does not include the commodity charge for the consumption of water or recycled water.

SURCHARGE means a charge imposed by the District for the provision of a special service not normally provided by the District, such as situations involving unusual quantity or quality requirements. This surcharge may include, but is not necessarily limited to, pumping surcharges.

TRUNK SEWERS means sewer lines and appurtenances purchased or constructed by the District with bond proceeds and/or capacity charges or those constructed by an applicant, owner, or customer subject in whole or in part to reimbursement typically larger than 12” in diameter. The District shall determine what facilities are trunk sewers from time to time as necessary based on the currently adopted master plan and the terms and provisions of any reimbursement agreements. The District’s determination in regard to these matters shall be final and conclusive.

UNAUTHORIZED DISCHARGE means any release of recycled water that violates the Rules and Regulations or any applicable federal, state, or local statute, regulation, ordinance, contract, or other requirement.

UPPER LATERAL means the line from the lateral connection to the building or improvements of the applicant, owner, or customer.

URBAN RUNOFF means dry and wet weather low flow runoff from urban spaces and small storm flow.

WASTEWATER means liquid and water carried waste and water, whether treated or untreated, discharged into or permitted to enter a District sewer. Also sometimes called SEWAGE.

WASTEWATER CONSTITUENTS AND CHARACTERISTICS means the individual chemical, physical, bacteriological, and radiological parameters, including volume and flow rate and such other parameters that serve to define, classify, or measure the quality and quantity of wastewater.

WATER means, in the general usage of these Rules and Regulations, potable water.

WATER BUDGET means a reasonable amount of water for a given customer's needs and property characteristics, including: the number of occupants, lot size, size of irrigated area, any business requirements, and climate. See also BASE INDEX.

WATER DISTRIBUTION SYSTEM means (individually or collectively) any water facilities that are financed, constructed, and dedicated to the District by an applicant, owner or customer or which are the result of local initiative and financing in tracts and subdivisions, as well as commercial or industrial developments, and which are typically less than 12" in diameter. Water distribution systems include all fire hydrants. The District shall determine what facilities are part of a distribution system from time to time as necessary. The District's determination in this regard will be final and conclusive.

WATER FACILITIES means any facilities used in the treatment, storage, pumping, and conveyance of water.

WATER SERVICE CONNECTION means the point of connection of the customer's building water line with the water service line of the District, which will normally be the downstream end of the water meter tailpiece.

WATER SERVICE LINE means the District's facility between its distribution system and the water service connection.

WATER SERVICE LINE CHARGE means a charge imposed by the District for installation by the District of water meters, service lines, and connections for private fire protection facilities.

### SECTION 3: AREA SERVED

The Rules and Regulations pertain to water, sewer, recycled water, and natural treatment system service to land or improvements, or both, within the boundaries of the District, and to service outside of its boundaries pursuant to contract. If water, sewer, recycled water, or natural treatment system facilities and/or capacity do not exist in the immediate area, then the applicant, owner, or customer must provide or finance those facilities and/or that capacity. The owner of property outside of a then-existing Improvement District, which property has adequate water, sewer, recycled water and/or natural treatment system facilities and/or capacity or funds therefor, must cause all such facilities and/or capacity or funds to be transferred to the District.

**Annexation.** Property not within the District and/or not within an Improvement District, and which is to be provided with service by the District, is subject to annexation to the District and/or Improvement District(s). Annexation to the District and/or Improvement Districts may, in turn, be subject to annexation to other agencies, such as Metropolitan Water District of Southern California, Municipal Water District of Orange County, Orange County Water District and/or Orange County Sanitation District, except as otherwise provided by agreement.

**Improvement Districts.** The District, may from time to time contract with an applicant, owner, or customer to initiate and pursue to completion the establishment of an Improvement District and the sale of bonds to provide the funds to construct the District facilities or capacity necessary for service to distribution or collection facilities that are required to be provided by the applicant, owner or customer as a condition of obtaining service from the District.

## SECTION 4: GENERAL REQUIREMENTS

### 4.1 SERVICE CONDITIONS

**Service by Permit Only.** The District will provide water, sewer and natural treatment system service only if a permit for that service is obtained in the manner described below, unless otherwise determined by the Board. Furthermore, if the District has determined that recycled water will be provided in accordance with the provisions of Section 4.12, the service will be provided only if a permit for recycled water service is obtained in the manner described below, unless otherwise provided by the Board.

**Service Subject to These Rules & Regulations.** Water, sewer, recycled water and natural treatment system service is available only in accordance with these Rules and Regulations, as well as applicable federal, state, and local statutes, ordinances, regulations, and contracts, and other requirements including, but not by way of limitation, the California Water Code, and other state statutes and regulations imposed by the California Regional Water Quality Control Boards, and state and local health departments, as well as the terms of any service agreement and permit issued by the District. The District may revoke any permit at which time all water, sewer, recycled water and natural treatment system service under that permit will cease in the manner provided for in these Rules and Regulations (see Sections 7 and 14).

#### 4.1.1 Water Supply Sufficiency

- (1) In 2001, the California State Legislature enacted legislation to improve coordination between the water supplier and the city or county during the land use entitlement process for certain large-scale developments, to ensure that projected water supplies will meet the proposed project's water demands in addition to the water supplier's planned demands.
- (2) The California statutes enacted by that legislation include:
  - (a) Water Code Section 10910 et seq. (the "Water Supply Assessment Law"), which requires a water supply assessment in conjunction with the California Environmental Quality Act ("CEQA") process. The Water Supply Assessment Law applies to subdivisions of more than 500 units and certain other categories of projects defined by the Assessment Law.
  - (b) Government Code Section 66473.7 (the "Water Supply Verification Law"), which requires a water supply verification in conjunction with the tentative map approval process. The Water Supply Verification Law applies to subdivisions of more than 500 units, subject to specified exemptions.
- (3) The Water Supply Assessment Law and the Water Supply Verification Law require the District to determine, based on the record, whether the District's currently available and under-development water supplies are sufficient to meet

the demands of applicant's project and the District's existing and planned uses over a 20-year projection during normal, single-dry and multiple-dry years.

(4) **Applicant's Duties in Connection with Water Supply Assessments.**

The applicant is responsible for completing the process established by the city or county, including required application submittals, to secure a water supply assessment and/ or water supply verification from the District if required for the applicant's project.

(5) **No Entitlement to Service.** Any water supply assessment or verifications prepared by the District will not entitle the applicant's project to water service or to any right, priority, or allocation in any supply, capacity, or facility, or affect the District's obligation to provide service to its customers or potential future customers. In order to receive service, the applicant must meet all of the applicable requirements of these Rules and Regulations.

## 4.2 APPLICATION PROCEDURE

4.2.1 **Application.** An application for water, sewer, recycled water and natural treatment system service must be made in writing, via the telephone, the District website, or in person. The District may require an application be signed by the applicant, and the owner or customer, if they are not one and the same. The Manager may provide an abbreviated form of application for permits if he determines that no unusual facts exist.

4.2.2 **Information Required.** The applicant may be required to provide the following information per account:

- (1) Name of applicant(s)
- (2) Date service is required
- (3) Location of service
- (4) Mailing address
- (5) Purpose for which service is to be used (e.g. residential, commercial or irrigation)
- (6) Contact phone number
- (7) Social Security Number or Tax Identification Number
- (8) Driver License Number, Passport, or State Identification
- (9) Such other information as the District may reasonably require.

4.2.3 **Application Fees and Deposits.** The applicant shall pay a non-refundable, one-time service establishment fee. A security deposit may be assessed in lieu of providing a Social Security Number or Tax Identification Number or based on prior credit history with the District. See Exhibit B, Schedule of Rates and Charges for fee and deposit amounts.

4.2.4 **Additional Discharge Permit.** An applicant for sewer service may be required to obtain a discharge permit for use of the District's sewage facilities in addition to the permit required for all applicants for sewer service. The conditions under which the additional permit is required are based on quantities and constituents of wastewater discharged into the District's sewage facilities. Section 7 sets forth



these requirements. The applicant shall comply with all Federal and State requirements including, but not by way of limitation, any and all requirements of the Environmental Protection Agency and any commitments for reimbursements required by the Environmental Protection Agency in excess of the charges of the District. These requirements are set forth in the Federal Water Pollution Control Act and the Code of Federal Regulations, which by this reference are herein incorporated as though set forth in full.

4.2.5 **Compliance with Law; Additional Approvals.** By applying for service, the applicant for a water, sewer, recycled water, or natural treatment system service permit agrees to comply with the requirements of any and all applicable Federal, State, and local statutes, ordinances, regulations and other requirements. The District may, at its discretion, require specific prior approval of any permit by any Federal, State, or local agency having jurisdiction over or an interest in the operation of the District's facilities.

4.2.6 **Additional Requirements.** Upon receipt of an application, the Manager shall review the application and make any investigation he deems necessary. The Manager may prescribe requirements in writing to the applicant as to the facilities necessary to be constructed, the manner of connection, the financial requirements, and the use of service including the availability of adequate water, sewage, recycled water, and natural treatment system facilities, and in cases of sewer service pretreatment facilities, if necessary, to insure initial and future continued compliance with the District's Rules and Regulations and any other applicable requirements.

#### 4.3 PERMITS

4.3.1 **Compliance.** The applicant shall adhere to requirements prescribed by these Rules and Regulations and to any additional requirements prescribed by the Manager or by the Board, or both, to insure compliance with the District's Rules and Regulations as to obtaining water, sewer, recycled water and natural treatment system service and as to characteristics, quality, and quantity of recyclable and non-recyclable sewage that the District is willing to receive into its facilities.

4.3.2 **Payment Prior to Permit Issuance.** The applicant shall pay the District's specified fees and charges prior to the issuance of a permit. These charges are set forth in Exhibit B, Schedule of Rates and Charges, and may be changed by the District from time to time. If assessment bond proceeds finance facilities normally funded by connection fees or by a developer subject to reimbursement, then those assessments must be paid concurrently with the payment of the associated connection fees. The Board may defer in its discretion the payment of any such assessment bonds in instances when an interim nonresidential use is to occur.



4.3.3 **Termination of Service.** By reason of circumstances beyond the control of the District, or in order to protect the facilities of the District, or for the protection of the public health, safety, and welfare of the residents or property owners of the District, the District may terminate service under the conditions set forth below:

(1) Water, sewer, recycled water, and/or natural treatment system service may be terminated on a temporary or permanent basis in the manner provided for in Section 7 or Section 14 at any time the applicant's, owner's, or customer's operations do not conform to the applicable requirements, as provided for herein.

(2) The District may terminate recycled water service on a temporary basis at any time recycled water at the terminal point of the District's reclamation plant does not meet the requirements of regulatory agencies, including those prescribed by the State of California, Administrative Code, Title 22, Chapter 4. Recycled water service will, in that case, be restored when the recycled water at the terminal point of the reclamation plant again meets the requirements of regulatory agencies or when the District supplements the recycled water system from sources other than the reclamation plant.

4.3.4 **Limit of Liability.** The District shall not be liable for any damage by water or recycled water or otherwise resulting from defective plumbing, broken or faulty services, or water or recycled water mains; or resulting from any condition of the water or recycled water itself, or any substance that may be mixed with or be in the water or recycled water as delivered to any customer. All applicants for service connections or water or recycled water service shall be required to accept such conditions of pressure and service as are provided by the distribution system at the location of the proposed service connection and to hold the District harmless from all damage arising from low pressure or high pressure conditions or from interruptions of service. The District shall not be liable for any damage by sewage or inadequate capacity, from defective plumbing, broken or faulty upper or lower laterals, sewers, or collection systems resulting from any conditions beyond the control of the District or otherwise.

#### 4.4 SIZE, LOCATION, AND INSTALLATION OF SERVICE LINE OR LOWER LATERAL

4.4.1 **Water and Recycled Water Service Lines.** The District may determine the size of the water and recycled water service lines, the service connections, and the meters and will also determine the kind and size of backflow protection devices for potable water service, in accordance with Section 4.10, and any and all other appurtenances to the service. The water or recycled water service lines shall be installed to a curb line or property line of the customer's property, abutting upon a public street, highway, alley, easement, lane, or road (other than a freeway) in which are installed water and/or recycled water mains of the District.

4.4.2 **Lower Lateral and Lateral Connections.** The District may determine and specify in the permit the size, location, and manner of installing the lower lateral.

Such design shall be in accordance with the District's Procedures Guide and Construction Manual. If a lower lateral is installed by the applicant, owner, or customer, the lower lateral joints shall remain exposed until they have been inspected and approved by the District. The size, slope, alignment, and materials of construction of the lower lateral and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling of the trench shall conform to the District's Procedures Guide and Construction Manual. The size, slope, alignment, and materials of construction of the upper lateral and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling of the trench shall conform to the applicable plumbing code(s) enacted and enforced by the cities of Irvine, Laguna Beach, Lake Forest, Newport Beach, Orange, Santa Ana, and Tustin, as well as by the County of Orange or its successor.

- 4.4.3 **Natural Treatment System Design.** The District reserves the right to give final approval of the design of natural treatment systems by developers. The design must be in accordance with the District's Procedures Guide, Construction Manual, and NTS Design Guidelines.

#### 4.5 LIMITATIONS ON SERVICE CONNECTIONS

Permits will be issued according to the following conditions:

##### 4.5.1 **Water Service Connections**

- (1) Each residence and/or building under separate ownership must be provided with a single and separate water service connection and water meter except under special conditions as determined by the District. Except as provided below, two or more buildings under one ownership and on the same lot or parcel of land must be supplied by a single water meter. A separate landscape irrigation meter is required for a property under the conditions described in Section 4.16.
- (2) The District reserves the right to limit the number of buildings, such as apartments, or the area of land under one ownership to be supplied by one water service connection and water meter.
- (3) Except for a condominium building, not more than one water meter for domestic or commercial supply shall be installed for one building, except under special conditions as determined by the District.
- (4) A water service connection and water meter must not be used to supply adjoining property of a different owner, or to supply property of the same owner across a street or alley.
- (5) When property provided with a water service connection and water meter is subdivided, that connection and meter will be considered as serving the lot or parcel of land that it directly or first enters. Additional water mains and/or service lines will be required for all subdivided areas in accordance with these Rules and Regulations.

- (6) All water used on any premises where a meter is installed must pass through the meter. Customers will be held responsible and charged for all water passing through their meters.
- (7) Every water service will be equipped with an angle curb stop or wheel valve on the inlet side of the meter; that valve or angle curb stop is intended exclusively for the use of the District in controlling the water supply through the water service line. If the curb stop or wheel valve is damaged by the customer's use to an extent requiring replacement, that replacement will be at the customer's expense.
- (8) If the customer's rate of consumption results in excessive wear of the meter, or is such that the meter is unable to measure the flow of water accurately, the District may increase the size of the meter and require payment of the actual cost of installing the new meter.
- (9) Fire protection systems must not be supplied through District meters that serve more than one residential unit.
- (10) As of July 1, 2018, water meter service lines must not be combined, connected or looped on the customer side. Private or customer side service lines must be kept independent from other service lines and supply independently plumbed zones within the same building. Any water meter service lines that were combined, connected, or looped on the customer side and permitted by the District prior to July 1, 2018 will be considered legal non-conforming uses and may remain (subject to permit) unless and until the property is redeveloped.

#### 4.5.2 Lower Laterals

- (1) For single family detached unit residential development a separate and independent lower lateral must be provided for every individual parcel or building under individual ownership.
- (2) For condominium developments the following minimum number of lower laterals must be provided:
  - (a) *Non Stacked*: 1 lower lateral per every two units – Minimum 4" size.
  - (b) *Two-Story Stacked*: 1 lower lateral per every four units - Minimum 6" size.
  - (c) *Multi-Story*: 2 lower laterals per building – Minimum 6" size.
- (3) For commercial, industrial, hotel, and For apartment developments the following minimum number of lower laterals must be provided: 1 lower lateral per building – Minimum ~~8~~<sup>6</sup> [BRI] " size, except under special conditions as determined by the District. ~~6~~<sup>6</sup> size

(4) The District reserves the right to limit the number of buildings or the area of land under one ownership to be connected to one lower lateral.

(5) When property provided with a lower lateral is subdivided, that lower lateral will be considered as serving the lot or parcel of land that it directly or first enters. Additional sewers and/or lower laterals may/will be required for all subdivided areas in accordance with these Rules and Regulations.

#### 4.5.3 Recycled Water Service Connections

(1) The District reserves the right to limit the area of land under one ownership to be supplied by one recycled water service connection and recycled water meter.

(2) A recycled water service connection and recycled water meter shall not be used to supply adjoining property of a different owner.

(3) When property provided with a recycled water service connection and recycled water meter is subdivided, such connection and meter shall be considered as serving the lot or parcel of land that it directly or first enters. Additional recycled water mains and/or recycled water service lines will be required for all subdivided areas in accordance with these Rules and Regulations.

(4) All recycled water used on any premises where a meter is installed must pass through the meter. Customers shall be held responsible and charged for all recycled water passing through their meters.

(5) Every recycled water service line shall be equipped with an angle curb stop or wheel valve on the inlet side of the meter; such valve or angle curb stop being intended exclusively for the use of the District in controlling the recycled water supply through the recycled water service line. If the curb stop or wheel valve is damaged by the customer's use to an extent requiring replacement, such replacement shall be at the customer's expense.

#### 4.6 RELOCATION OF WATER SERVICE LINE, LOWER LATERAL, OR RECYCLED WATER SERVICE LINE OR FIRE HYDRANT

If a water service line, lower lateral, or recycled water service line or fire hydrant installed pursuant to the request of the applicant, owner, or customer is of the wrong size or installed at a wrong location, then the cost of all changes required must be paid by the applicant, owner, or customer. All water services, lower laterals, and recycled water services and fire hydrants provided prior to final street improvements will be considered temporary and the costs for all repairs or changes required to be performed by the District must be paid by the applicant, owner, or customer.

## 4.7 ILLEGAL CONNECTIONS, DIVERSIONS, OR TAMPERING

### 4.7.1 Definitions

(1) “**Divert**” means to change the intended course or path of water or wastewater into or out of the District’s system without the authorization or consent of the District. Any unpermitted discharge into the District’s facilities, and any unpermitted withdrawal of potable or recycled water from the Districts’ facilities is a “**diversion.**”

(2) “**Tampering**” means the unauthorized entering, breaking, damaging, destroying, uncovering, defacing, rearranging, injuring, altering, or interference with any temporary or permanent structure (including any pipeline), equipment (including any pumps or back-flow devices), or appurtenance owned by the District or that is part of the District’s water, wastewater, recycled water, or natural treatment systems. Any unpermitted connection to the District’s facilities is “**tampering.**”

Installation by anyone other than the District of any equipment installed in any District facility, including a meter box or pressure regulating valve (PRV) vault or onto any meter or PRV, is “tampering”. This includes but is not limited to leak detection equipment, flow sensors, batteries or antennas. If any unpermitted equipment is installed it will be removed by District staff.

Tampering also includes but is not limited to diverting from the District’s system consuming any water which has not been correctly registered, reconnecting water service that has been disconnected or shut-off by the District for nonpayment or other reasons, removing the meter register so flow is not detected and removing the meter tampering tag.

(2)

4.7.2 **Prohibition.** Diversion and tampering are prohibited.

4.7.3 **Specific Prohibited Diversions to Sewers.** The following must not be connected to a District sewer facility (or to a building sewer or building drain that in turn is connected directly or indirectly to a District sewer facility): roof downspouts, exterior foundation drains, areaway drains, car wash pads not covered by a roof, or other sources of surface runoff or ground water.

4.7.4 **Penalties for Diversion or Tampering.** Diversion and tampering are crimes under the California Penal Code and are violations of the Water Code and the Civil Code. Diversion and tampering may be subject to charges and penalties, as well as referral to the District Attorney for criminal prosecution. All charges and penalties shall be applicable and collected in accordance with section 14 and Exhibit B, Schedule of Rates and Charges and pursuant to all other applicable laws and regulations.

## 4.8 METER TESTING

4.8.1 If a water or recycled water meter fails to register during any period or is known to register inaccurately, the customer shall be charged using a reasonable average

daily consumption based on prior consumption or other reasonable calculation in the absence of historical consumption data. Upon the customer's written demand and payment of a testing deposit, the District will examine and test the meter through which water or recycled water is being furnished to determine whether it is correctly registering the amount of water or recycled water being delivered through it.

- 4.8.2 If the District determines the meter to register over two percent (2%) more water than actually passes through it, then the District shall properly adjust the meter or replace the meter, return the deposit, and adjust the customer's bill accordingly. If the meter registers not more than two percent (2%) more water than actually passes through it, then the District will retain the deposit as the testing cost.

#### 4.9 FIRE HYDRANTS

4.9.1 Fire hydrants connected to the District's mains and fire hydrants that are served by an applicant, owner, or customer fire line are provided for the sole purpose of furnishing water to fight fires and shall be opened and used only by persons authorized by the District. If the District permits the use of hydrants for purposes other than extinguishing fire, that permit will be granted only through the procedures and provisions contained in Section 4.1 of these Rules and Regulations. Rates to be charged for water extracted from a hydrant for temporary construction use or other purposes will be in accordance with the applicable schedule contained in Exhibit B, Schedule of Rates and Charges.

4.9.2 Unpermitted hydrant use is hereby deemed a waste of water, and is subject to interim or permanent revocation of the underlying connection permit and fees or fines pursuant to Section 14 and Exhibit B, Schedule of Rates and Charges. Interim and or permanent revocation of water service provided for the sole purpose of fighting fires may require, pursuant to Orange County Fire Authorities regulations, the applicant, owner, or customer to provide sufficient fire protection and or fire watch at no cost to the District.

#### 4.10 WATER BACKFLOW PREVENTION

##### 4.10.1 General

(1) The purpose of these provisions is to protect the District's potable water supply against actual or potential cross-connections by isolating, within the premises, contamination or pollution that may occur because of undiscovered or unauthorized cross-connection on the premises. These provisions are in accordance with the California Administrative Code, Title 17 (Public Health), entitled "Regulations Relating to Cross-Connections."

(2) These provisions shall be in addition to and not in lieu of the controls and requirements of other regulatory agencies, such as local governmental agencies and local and State Health Departments. These regulations are intended to protect the District's potable water supply and are not intended to provide regulatory measures for protection of users from the hazards of cross-connections within their own premises. Notwithstanding these provisions, the District accepts no

responsibility for cross-connections or resulting hazards or contamination.

(3) The District has developed an active cross-connection control program with a Cross-Connection Control Inspector to administer the program. Any questions or notifications regarding these provisions or the program should be directed to the Inspector.

(4) Backflow prevention devices, as required in these provisions, shall be provided installed, tested, and maintained by the applicant, owner, or customer at his expense. For specific materials and installation requirements, see the District's Procedures Guide and Construction Manual. The devices shall be located on the premises served and shall not be on the District's portion of the system. All devices shall be readily accessible for testing and maintenance and no device shall be submerged at any time.

(5) When water service is initiated, the applicant must provide sufficient information, including plumbing and building plans, to enable the District to determine the level of backflow protection required. The proper backflow protection, as determined by the District, shall then be installed and inspected before water service is provided.

(6) Each time there is a change of customer (either owner or tenant) on any commercial or industrial premise, the new or previous owner or customer shall notify the District immediately. The District will then reassess the level of protection required. Also, any alterations to existing onsite facilities that may affect the level of protection required must be reported immediately to the District.

(7) From time to time, representatives of any health agency having jurisdiction and/or the District may conduct evaluations of any premises where water service is provided by the District. The purpose of such evaluations is to determine if any actual or potential cross-connections exist, if there are any unapproved uses, and to assess compliance with applicable laws and regulations. The applicant owner or customer shall provide reasonable cooperation in facilitating such evaluations.

(8) Additional information concerning backflow prevention may be obtained from the "Manual of Cross-Connection Control," Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, School of Engineering. [Additional monitoring and inspection rules are in Section 8 of these Rules and Regulations.](#)

**4.10.2 Where Protection is Required.** Backflow protection for the District's potable water supply shall be provided on each water service connection to:

(1) Premises having an auxiliary water supply such as recycled or non-potable water. If the auxiliary water supply is approved for potable use by the public health agency having jurisdiction, backflow protection will not be required.

(2) Premises on which any substance is handled in such fashion that could permit entry into the water system. This shall include the handling of process waters and waters originating from the District's system that have been subject to deterioration in sanitary quality.



- (3) Premises that have internal cross-connections, unless such cross-connections are abated to the satisfaction of the District and approved by the state or local health agency.
- (4) Premises having intricate plumbing and piping arrangements or where not all portions of the premises are readily accessible for inspection purposes.
- (5) Premises having a repeated history of cross-connections being established or re-established.
- (6) Premises being served water through a temporary above ground water service connection.

4.10.3 **Type of Protection.** The type of protection required is related to the degree of hazard that exists on the premises served. The type of protective device that may be required (listed in increasing level of protection) includes: Double Check Valve (DC), Reduced Pressure Principle Backflow Prevention Device (RPPD), and an Air Gap Separation (AG). The water user may choose a higher level of protection than required by the District. The minimum types required, relative to various situations shall be as required by California Administrative Regulations, Title 17, or to the extent not covered thereby, as determined by the District and/or health agency.

#### 4.10.4 **Inspection and Maintenance of Protective Devices**

(1) It shall be the duty of the water user on any premises on which backflow prevention devices are installed to have competent inspections made at least once a year, or more often in those instances where successive inspections indicate repeated failure. All inspections and testing shall be performed by a tester certified by the local health department. The devices shall also be tested immediately after they are installed, relocated or repaired and shall not be placed in service unless they are functioning as required.

(2) The District will notify the applicant, owner or customers when routine testing is needed and also supply them with the necessary forms that must be filled out each time a device is tested or repaired. The notice will include the date when the test must be completed, generally 30 days after the date of the notice. The completed, original forms shall be returned to the District. Copies of the completed forms shall also be sent to the local health department. The applicant, owner or customer shall notify the District any time the device is repaired, replaced or relocated. A device shall be repaired or replaced by, and at the expense of the water user, whenever it is found to be defective. Records of all such tests and repairs shall be maintained by the water user. The District may request records regarding any backflow prevention device on the premises.

(3) A device may be removed for repair or replacement, provided that (a) water use is discontinued until repair or replacement is completed and the device is returned to service, or (b) the service connection is equipped with other

backflow protection approved by the District. A retest will be required following the repair or replacement of the device.

(4) A device may be relocated following confirmation by the District that the relocation will continue to provide the required protection and satisfy installation requirements. A retest will be required following the relocation of the device.

#### 4.10.5 **Marking Safe and Unsafe Water Lines**

(1) Where the premises other than single-family residences contain dual or multiple water systems and piping, the exposed portions of pipelines shall be painted, banded, or marked at sufficient intervals to distinguish clearly which water is safe for drinking purposes and which is not safe. All outlets intended for drinking purposes shall be plainly marked to indicate that fact.

(2) For single-family residences which have recycled water services provided, only those water outlets which serve non-potable water shall be marked with the words "Recycled Water - Do Not Drink."

(3) For single-family residences which contain water systems, all potable water service piping shall all be designed and constructed in compliance with IRWD's Procedures Guide.

4.10.6 **Reporting of Pollution or Contamination.** In the event of contamination or pollution of the potable water system due to a cross-connection on the premises, the local health officer and District shall be promptly advised by the person responsible for the water system so that appropriate measures may be taken to mitigate the contamination or pollution.

#### 4.10.7 **Water Service Termination**

(1) If the District determines that water uses or conditions encountered by the District represent a clear and immediate hazard to the District's water supply that cannot be immediately abated, the District shall institute the procedure for discontinuing water use. Conditions or water uses that create a basis for water service termination shall include, but are not limited to, the following:

- (a) Refusal to install a required backflow prevention device.
- (b) Refusal to test a backflow prevention device.
- (c) Refusal to repair a faulty backflow prevention device.
- (d) Refusal to replace a faulty backflow prevention device.
- (e) Direct or indirect connection between the District's water system and a sewer.

- (f) Unprotected direct or indirect connection between the District's water system and a system or equipment containing contaminants.
- (g) Unprotected direct or indirect connection between the District's water system and an auxiliary water system.
- (h) A situation which presents an immediate health hazard to the District's water system, as determined by the health agency or the District.
- (i) At single-family residences which contain water systems, the installation of any piping shall be in conformance with IRWD's Procedures Guide.

(2) For conditions 4.10.7(1)a, b, c, d or i above, the District will terminate service to a customer's premises as follows:

- (a) *First Notice.* The District will notify the applicant, owner or customers when routine testing or corrective action is needed and also supply them with the necessary forms that must be filled out each time a device is tested or repaired. The notice will include the date when the test or corrective action must be completed, generally 30 days after the date of the notice.

(1) The completed, original forms shall be returned to the District. Copies of the completed forms shall also be sent to the local health department.

(2) The applicant, owner or customer shall notify the District any time the device is repaired, replaced or relocated.

- (b) *Second Notice.* A second notice shall be sent to each water user that does not have the backflow prevention device tested or take other corrective action as prescribed in the first notice within the time allowed. The second notice will give the water user a ~~fifteen~~ (15)-day period to have the backflow prevention device tested or take other corrective action.

- (c) *Third Notice.* If no action is taken within the 15-day period, then a third notice will be sent to the water user giving the water user a final ~~ten~~ (10)-day period to have the device tested or take other corrective action.

- (d) *Notice of Service Termination.* If no action is taken within the 10-day period, then the District will notify the user that water service will be terminated and proceed to turn off the water until the device is tested and passes the test or other corrective action is taken and approved. If no action is taken within the time period

stated in the District's *Notice of Service Termination*, then water service may be terminated in accordance with Section 14, ENFORCEMENT AND PENALTIES.

(3) For conditions 4.10.7(1)e, f, g, or h above, the District will make reasonable effort to advise the water user of intent to terminate water service. Then, the District will terminate the water service and lock the service valve in the closed position. Water service will not be reinstated until correction of all violations has been approved by the District. Failure to correct the violations may result in permanent termination of water service in accordance with Section 14, ENFORCEMENT AND PENALTIES.

#### 4.11 SEWER BACKFLOW PREVENTION

4.11.1 Residences and other buildings served by the District's sewage facilities shall be protected from the backflow of wastewater in the lower laterals as herein provided. Drainage piping serving fixtures, the flood level rims of which are located below the rim elevation of the uphill manhole of the District sewer and above the crown level of the District main sewer, shall drain by gravity into the District main sewer and shall be protected from backflow of sewage by installing an approved type backwater device, and each such backwater device shall be installed only in that branch or section of the drainage system that receives the discharge from fixtures located below the elevation of the curb or property line.

4.11.2 Backwater devices required by this section must be located where they will be readily and easily accessible for inspection and repair at all times and, unless continuously exposed, must be enclosed in a watertight masonry pit fitted with an adequately sized removable cover.

4.11.3 The applicant, owner, or customer must provide and maintain, at his expense, backwater devices and appurtenances as required in this section. Each such device must be located on the property it protects and must not be allowed in the public right of way.

#### 4.12 USE OF RECYCLED WATER

4.12.1 **Determination of Feasible and Authorized Uses.** In accordance with the provisions of Section 1, the uses of recycled water may include, but not by way of limitation, landscape irrigation, agricultural irrigation, natural treatment system irrigation, construction water, industrial process water, cooling tower makeup water, water for flushing toilets and urinals, trap primers in dual-plumbed buildings, and public and private recreational impoundment. Each such use must be considered for approval by the District on a case-by-case basis, and the District may determine in its discretion whether it is feasible to furnish recycled water for the specific use involved. Prior to approving such uses, the District may, in its discretion, set forth specific requirements as conditions to providing such services

and/or require specific prior approval from the appropriate regulatory agencies. The District's determination of feasibility will be based on the following factors:

- (1) Whether recycled water may be furnished for the intended use at a reasonable cost to the customer and the District;
- (2) Whether recycled water use is in accordance with the standards of treatment and water quality requirements set forth in Title 22, Chapter 4, of the Code of California Regulations and all other applicable federal, state and local laws and regulations;
- (3) Whether the use of recycled water can be made in a manner not detrimental to public health.

#### **4.12.2 Requirement to Use Recycled Water**

The District will identify customers who are located within the District's service area and within an area identified in the Plan as an area capable of receiving service from the District's recycled water system and will determine the feasibility of providing recycled water service to these customers. The District will also review applications for new permits to determine the feasibility of providing recycled water service to these applicants. If recycled water service is determined by the District to be feasible, applicants for new water service must install onsite facilities to accommodate both potable water and recycled water service in accordance with these Rules and Regulations. The District may also require existing customers to retrofit existing onsite water service facilities to accommodate recycled water service. Potential recycled water customers identified by the District that elect not to use recycled water that is available but can use recycled water in compliance with State and County regulatory requirements, these Rules and Regulations and can meet the criteria identified in Section 13550 of the California Code of Regulations, may be subject to the provisions in Section 4.12.5 of this document. Potential recycled water customers that believe recycled water cannot be used at their site shall provide written justification to support their position. The District assumes identified customers meeting the above referenced criteria can use recycled water until or unless the potential recycled water customer can provide documentation otherwise. If the District's recycled water distribution system has not yet been extended to the vicinity of the customer's property, the District may require a written commitment from the customer to use recycled water when the extension has been made. A customer that does not provide a written commitment may be subject to the provisions in Section 4.12.6. If the District does not require the use of recycled water service, the customer may obtain recycled water service upon request but only if the District has determined that recycled water service to the customer is feasible and authorizes such use.

#### **4.12.3 Installation Costs**

Except as otherwise provided herein, when an existing customer is required by the District to convert to recycled water service, the customer will pay the reasonable capital costs of retrofitting the onsite water service facilities (as defined in Section 4.12.4(1) and the District will provide the offsite facilities necessary to deliver recycled water to the meter. Applicants for new or expanded water service shall be responsible for the full capital cost of onsite recycled water

facilities and applicant-furnished offsite distribution facilities required as a condition of service pursuant to Section 5.

#### 4.12.4 Process of Determination

The following describes the process by which the District will determine which potential recycled water customers may be served, contact by District, response by potential recycled water customers and appeal provision to the District's Board of Directors:

- (1) District staff will identify potential sites at which it believes recycled water may be used. Identified potential recycled water use sites must meet the following criteria:
  - (a) Recycled water is served to an available location. "Available location" means (1) the District's recycled water distribution system is in a street adjacent to the subject property, or (2) the District has notified a customer that if a written commitment to use recycled water has been received from the customer, the District will complete an extension of the distribution system to a street adjacent to the customer's property, and the customer has failed or refused to provide the written commitment, and any determination sought by the customer pursuant to 4.12.4(3) through 4.12.4(6) has become a final and non-appealable determination that recycled water use is feasible;
  - (b) The District can provide recycled water in the needed volume, quality, pressure and flow rate;
  - (c) The anticipated use(s) at the subject site are allowed for in Title 22 of the California Code of Regulations;
  - (d) The construction/retrofit can be accomplished in compliance with Federal, State, County and District requirements;
  - (e) The anticipated use(s) will not negatively impact public health;
  - (f) The use of recycled water will not diminish water rights; and
  - (g) Recycled water is available at a reasonable cost, meaning:
    - (1) The commodity cost for recycled water is less than the commodity cost for a like quantity of potable water; and
    - (2) The net customer cost of facilities and appurtenances required to be installed can be amortized by the difference in potable and recycled water rates over a period of not more than one hundred and twenty (120) months.

- (2) District will contact potential recycled water use site representative to discuss the use of recycled water.
- (3) Potential recycled water customers shall respond to District inquiries as to its ability to use recycled water. Customer and IRWD shall engage in dialogue to determine if recycled water can be used. At the completion of dialogue, the potential recycled water customer shall have ninety (90) calendar days to indicate its intent regarding the use of recycled water. If recycled water can be used, the customer shall work with the District toward the successful introduction and use of recycled water including obtaining regulatory approvals. If, according to the customer, recycled water cannot be used, customer shall provide written documentation to the General Manager to support their position.
- (4) District staff will review documentation provided by customer supporting why recycled water cannot be used.
  - (a) In the case of potential customers that provide sufficient evidence as to why recycled water cannot be used, District shall consider the matter closed; or
  - (b) In the case of potential customers that elect not to respond to District inquiries or do not provide documentation as to why recycled water cannot be used, the General Manager or designee shall report those occurrences to the Water Resources Policy and Communications Committee. With Water Resources Policy and Communications Committee approval, the General Manager or designee shall send a certified letter to the potential recycled water customer urging contact with the District to continue meaningful dialogue regarding the potential use of recycled water. The potential recycled water customer shall have thirty (30) calendar days in which to contact the District. If the potential recycled water customer does not respond within thirty (30) calendar days, a second certified letter will be sent notifying the potential recycled water customer that the billed per Section 4.12.5 of this document beginning sixty (60) calendar days after notification.
- (5) The potential recycled water customer who contends recycled water is not feasible based on criteria described in Sections 4.12.4(1) may appeal to the General Manager by filing a written appeal within thirty (30) calendar days of the date of the notice described in Section 4.12.4(4). The General Manager shall consider the information provided and respond within thirty (30) calendar days to the potential recycled water customer.
- (6) The decision of the General Manager may be appealed to the Board of Directors in writing filed with the District Secretary within thirty (30) calendar days of the General Managers decision. The Board of Directors will conduct a hearing to consider the appeal at the next regularly scheduled Board meeting. The



decision of the Board of Directors shall be transmitted in writing to the potential recycled water customer within thirty (30) calendar days of the hearing. The decision of the Board of Directors is final.

**4.12.5 Recycled Water Non-Conforming Use Billing Rate.** For potential recycled water customers that elect not to comply with section 4.12.2 (“Requirement to Use Recycled Water”) and fail to provide reason(s) why recycled water cannot be used, all metered potable water use at the site that could otherwise be served with recycled water shall be billed at the applicable potable water rate plus the “non-conforming use” rate until the site is converted or acceptable justification as to why the recycled water cannot be used is provided. No refunds will be provided unless a justification is accepted by the District.

**4.12.6 Potential Recycled Water Customer Non-Participation/Non-Cooperation.** Potential recycled water customers identified and contacted by the District that elect not to use recycled water or are not cooperating with the District as defined in Section 4.12.4 of this document, will be billed as defined in Section 4.12.5 of this document. In cases where the potential recycled water customer elects not to pay their bill, that customer will be subject to the provisions as set forth in Exhibit B, Schedule of Rates and Charges. ~~in Section 1.20 (“Delinquency and Service Restoration Charges”) of the District’s prevailing “Schedule of Rates and Charges.”~~

**4.12.7 Termination of Prior Recycled Water Service.** If an end user that was previously accepting recycled water elects to suspend or terminate delivery of recycled water and use potable water for reasons other than those identified in Section 4.12.4 of this document, that end user may be subject to the provisions in Section 4.12.6.

**4.12.7.12.8 Temporary Use of Potable Water in lieu of Recycled Water. If the District determines that a recycled water customer can’t reasonably be served recycled water due to issues caused by the District’s recycled water system, then the District may serve the customer potable water and the customer will be billed using the recycled water rate until the issue is resolved by the District.**

#### 4.13 SCHEDULING RECYCLED WATER; SUPPLY OF OTHER WATER TO RECYCLED WATER DISTRIBUTION SYSTEM

Recycled water shall be used in compliance with District’s “Procedural Guidelines and General Design Requirements.” The District reserves the right to control and schedule the use of recycled water if, in the opinion of the Manager or his designated representative, scheduling is necessary for purposes including, but not limited to, the maintenance of an acceptable working pressure in the recycled water system and providing for reasonable safeguards in relation to public health. Guidelines for such scheduling shall be as deemed appropriate by the Manager or his designated representative. The District reserves the right to supply potable or non-potable water to the District’s recycled water distribution system from time to time, as the Manager or his designated representative determines to be necessary or useful to augment the recycled water supply to such system. The supply of such other water to the system shall be at the District’s discretion and shall not change the rates or charges billed for recycled water service nor relieve



any recycled water customer of the applicable requirements of the Rules and Regulations, including but not limited to Section 6.2.2.

#### 4.14 EMERGENCY CONNECTIONS TO RECYCLED WATER SYSTEM

If in the opinion of the District, an emergency exists whereby in all or a portion of the recycled water system recycled water is not available, the Manager may approve a temporary connection to the potable water system. Before a temporary connection is made, the portion without recycled water must be isolated by an air gap separation from the remainder of the recycled water system either at individual services or on the offsite system, as determined by the District and an approved backflow prevention device or devices of the type determined in accordance with Section 4.10 herein, shall be installed on the potable water line or lines in accordance with these Rules and Regulations and any and all applicable rules and regulations of the State and local health departments. Before the emergency connection or connections shall be removed, whether onsite or offsite, the customer shall notify the District's cross-connection department. This emergency connection or connections shall be removed before connection is re-established to the remainder of the recycled water system.

#### 4.15 RESPONSIBILITY FOR MAINTENANCE

4.15.1 **Water and Recycled Water.** The applicant, owner, or customer is responsible for maintaining all onsite facilities that are under the ownership of parties other than the District.

4.15.2 **Sewer - Single Family Units.** Unless otherwise specified on an approved IRWD Construction plan, ~~the~~ applicant, owner, or customer is responsible for maintenance of the upper lateral and lower lateral. Any upper lateral or lower lateral shall be cleared and cleaned by the applicant, owner, or customer at his own expense. The upper lateral is the responsibility of the owner to repair or reconstruct. The lower lateral is the responsibility of the District to repair or reconstruct. If damages to District facilities are a result of neglect of maintenance responsibilities or unapproved improvements within an IRWD easement, IRWD reserves the right to recover ~~up~~-repair costs from the applicant, owner or customer.

4.15.3 **Sewer - Multi-Dwelling Units (Condominium Complexes and Townhomes).** Unless otherwise specified on an approved IRWD Construction plan, ~~M~~maintenance of onsite sewer main lines shall be the responsibility of the District up to the main line cleanout or last manhole. In order to qualify for such maintenance, these facilities must be fully dedicated to the District, including proper easements, and approved by the Manager or his designee. All laterals upstream of the main line are the responsibility of the applicant, owner or customer to maintain, repair, or reconstruct. If damages to District facilities are a result of neglect of maintenance responsibilities or unapproved improvements within an IRWD easement, IRWD reserves the right to recover ~~up~~-repair costs from the applicant, owner or customer.

#### 4.15.4 Sewer – Commercial and Industrial Properties

(1) Unless otherwise specified on an approved IRWD Construction plan, ~~if~~ the property has a single sewer lateral connection, the applicant, owner, or customer is responsible for maintenance of the upper lateral and lower lateral. Any upper lateral and lower lateral shall be cleared and cleaned by the applicant,

owner, or customer at his own expense. The upper lateral is the responsibility of the owner to repair or reconstruct. The lower lateral is the responsibility of the District to repair or reconstruct. If damages to District facilities are a result of neglect of maintenance responsibilities or unapproved improvements within an IRWD easement, IRWD reserves the right to recover repair costs from the applicant, owner or customer.

If the property has an onsite sewer collection system, the maintenance of onsite sewer main lines shall be the responsibility of the District up to the main line cleanout or last manhole. In order to qualify for such maintenance, these facilities must be fully dedicated to the District, including proper easements, and approved by the Manager or his designee. All laterals upstream of the main line are the responsibility of the applicant, owner, or customer to maintain, repair, or reconstruct.

#### 4.15.5 **Obstruction of or Deposit of Material in Meter Boxes or Hydrants**

(1) No person shall place, dispose, or deposit or permit the placement, disposal or deposit of oil, toxic, hazardous or contaminated liquid or waste, trash, dirt, building materials or other substances, objects or obstructions in, on or around meter boxes, and it shall be the responsibility of each applicant, owner, or customer to prevent meter boxes, District hydrants or other District facilities from becoming obstructed or obscured by such applicant, owner, or customer's trees, shrubs, plants or in any other manner so as to impede their use or access to them or make their location difficult to determine.

(2) If such substances, objects or obstructions are not cleaned and removed or are permitted to obscure or impede such facilities, the District may, after providing reasonable notice to the applicant, owner or customer, accomplish the cleaning and removal and charge the applicant, owner or customer for the cost of doing so.

4.15.6 **Natural Treatment Systems.** The developer shall be responsible for maintenance during the construction and establishment period as specified in the Procedures Guide and the NTS Design Guidelines.

### 4.16 WATER EFFICIENCY, CONSERVATION AND MANAGEMENT PRACTICES

4.16.1 As stated in Section 1, it is the desire of the District to effect conservation and efficient use of water resources whenever possible, such measures being consistent with legal responsibilities to utilize the water resources of the State of California and the District. Without limiting standards that may otherwise apply pursuant to Section 4.1, facilities and fixtures shall meet the applicable water efficiency standards referenced in this section.

4.16.2 Facilities for irrigation of new or existing parks, median strips, landscaped public areas or landscaped areas, lawns, or gardens surrounding single-family homes, condominiums, townhouses, apartments, and industrial parks shall be designed and installed in such a way as to meet or exceed the water efficiency requirements of any applicable local or State standards.

4.16.3 After January 1, 2008 a separate landscape meter shall be required to provide new water service to a property with more than 5,000 square feet of landscape irrigated with potable water. This provision does not apply to single family residential connections, agricultural crops or landscape, or where water service has previously been provided.

- 4.16.4 Recycled water is considered a water resource by the District, therefore, the same restrictions shall apply for all uses of recycled water as for potable water.
- 4.16.5 Rate and extent of application of water shall be controlled by the user so as to minimize run-off from the irrigated areas.
- 4.16.6 All plumbing fixtures installed shall meet or exceed the applicable standards in effect at the time of service application.

#### 4.17 INTERIM WATER SERVICES

4.17.1 **General.** The District's potable water system has been master planned to serve the ultimate needs of residential, commercial, and industrial developments in the District's service area. Design and construction of facilities are phased in unison with the above mentioned developments. However, the District will provide service for interim uses whenever possible, although such uses shall be subject to the conditions set forth herein.

#### 4.17.2 Temporary Service Connections

- (1) Temporary service connections are primarily installed for the convenience and use of individuals, contractors, and companies during construction work. However, they are not limited to construction purposes but may be installed for any use.
- (2) The Contractor or other person applying for a meter or meters shall be held responsible for loss or damage to the meter from the time it is installed until it is removed, or until 48 hours after notice in writing has been given the District that the contractor or other person is finished using the meter.
- (3) Flows through a 2 1/2 inch or larger temporary service fire hydrant meter shall be limited to a maximum of 250 gallons per minute, unless otherwise authorized in writing at the time of application. Any deliberate attempt on the part of the applicant or user to increase the flow is just cause for the District to discontinue service.
- (4) The District reserves the right to interrupt service without notice if such usage is causing pressure in the system to drop below an acceptable range.
- (5) Each temporary service customer shall make every attempt to maintain a constant flow through the meter. To achieve this requirement, the customer may be required to provide and install a storage facility (construction tank, small interim reservoir, etc.), approved by the District, in conjunction with the meter.
- (6) When using fire hydrants for temporary service connections, no more than one outlet per hydrant shall be used for this purpose; however, the use of siamese fittings approved by the District is acceptable provided that the additional flow does not significantly impair pressures in the distribution system.

(7) The maximum duration of time a temporary service may be applied for is six months. At the conclusion of six months, the customer may reapply for service, subject to approval from the District.

#### 4.17.3 Agricultural Service Connections

(1) The District reserves the right to regulate agricultural users without notice if pressures in the distribution system drop below the minimum acceptable range. The District reserves the right to interrupt agricultural service at any time without notice if such usage is causing pressures in the system to drop below a minimum acceptable range. When pressure is resumed to an acceptable range for a reasonable period of time, all regulated agricultural services will be returned to their requested flows. Repeated occurrences of pressures dropping below a minimum acceptable range may result in permanent discontinuation by the District of the agricultural user's service upon 30 day notice.

(2) All requests for water and recycled water for agricultural purposes must be made 24 hours in advance of the intended use. Only authorized District personnel will set and adjust flows from all agricultural service connections.

(3) Water and recycled water for agricultural use shall be delivered at a constant rate.

(4) All changes in flows will be made between the hours of 7:00 a.m. and 3:00 p.m. All changes in flow shall be requested prior to 10:00 a.m. the day prior to the intended change.

## SECTION 5: FACILITIES DESIGN AND CONSTRUCTION

### 5.1 GENERAL

All offsite water, sewer, recycled water and natural treatment system facilities and all onsite recycled water facilities shall be designed and constructed according to the requirements, conditions, and standards set forth in the Procedures Guide and Construction Manual which document is on file at the office of the District, and by this reference is incorporated herein.

The recycled water system, including both offsite and onsite facilities, shall be separate and independent of any potable water system.

Any required backflow prevention devices on potable water services and flow or pressure control devices shall be downstream of the meter and provided by the applicant, owner, or customer at his expense.

### 5.2 OFFSITE WATER, SEWER, RECYCLED WATER FACILITIES

Any water distribution, sewage collection, recycled water distribution system facilities determined by the District to be required to provide service within developments of the property within the District shall be provided by the applicant, owner, or customer at his expense.

Plans and specifications for all water distribution, sewer collection, recycled water distribution facilities shall be submitted to and approved by the District in advance of construction.

The District will assume responsibility for providing water, sewer, and recycled water service to the point of connection (individual lots for residential water and sewer service and residential yard recycled water irrigation service) of such development upon transfer to the District of title to all facilities in the required systems and any necessary easements therefore. All easements shall be in a form acceptable to the District and not subject to outstanding obligations to relocate such facilities or any deeds of trust, except in instances where such is determined by the Board or the Manager to be in the best interests of the District.

Modification or relocation of the meter or other facility which results in nonconformance with applicable provisions of these Rules and Regulations, the Procedures Guide or the Construction Manual is prohibited and shall be corrected at the expense of the applicant, owner, or customer. Upon failure or refusal of the applicant, owner or customer to make such correction, the District may, after providing reasonable notice to the applicant, owner or customer, make the correction and charge the applicant, owner or customer for the cost of doing so.

### 5.3 ONSITE RECYCLED WATER FACILITIES

Any onsite recycled water facility shall be provided by the applicant, owner, or customer at his expense. The applicant, owner, or customer shall retain title to all such onsite facilities.

Onsite recycled water facilities, in addition to conforming to the Procedures Guide and Construction Manual shall conform to local governing codes, rules, and regulations. The Cities of Costa Mesa, Irvine, Lake Forest, Newport Beach, Orange, Santa Ana, and Tustin, and the

County of Orange shall have authority over materials, equipment, design, and construction methods used for onsite recycled water facilities within their jurisdiction, provided that when the District's Procedures Guide and Construction Manual require a higher quality material, equipment, design or construction method than that required by the above local governing codes, rules, and regulations, the District's Procedures Guide and Construction Manual shall be controlling.

Plans and specifications and record drawings shall be prepared and submitted to the District in accordance with the Procedures Guide and Construction Manual. Plans and specifications must be approved by the District prior to commencing construction. Prior to commencement of service to any onsite system using recycled water, record drawings shall be provided and approved and the installed system shall be tested under active conditions to ensure that the operation is in accordance with the intent of these Rules and Regulations.

In accordance with Section 1 herein, in those areas where recycled water is not immediately available for use when the design area is ready for construction, and if the District has determined that recycled water will be supplied in the future, the onsite facilities shall nevertheless be designed to use recycled water. Provisions shall be made and these Rules and Regulations followed to allow for connection to the recycled water facilities when they become available. In the interim, potable domestic water will be supplied to the recycled water facilities through a temporary potable meter connection. A backflow preventer of the type determined in accordance with Section 4.10 herein will be required as long as the onsite facilities are using potable water. The backflow preventer shall be downstream of the meter and shall be a part of the onsite facilities. The District will remove the backflow preventer and will make the connection to the onsite facilities when recycled water becomes available.

#### 5.4 NATURAL TREATMENT SYSTEM FACILITIES

Natural treatment systems that are designated as capital facilities shall be designed and constructed by the District. All other natural treatment systems shall be designed, constructed and established by the developer in accordance with the District's Procedures Guide and the NTS Design Guidelines.

Plans and specifications for developer-constructed natural treatment systems shall be submitted to and approved by the District in advance of construction.

#### 5.5 CONVERSIONS OF EXISTING FACILITIES FOR RECYCLED WATER

Where it is required pursuant to Section 4.12.2 that any existing water system be converted to a recycled water facility, a comprehensive investigation shall be performed by or for the District. The facilities to be converted to recycled water use shall be investigated in detail, including review of any record drawings, preparation of required reports, and determinations by the District of measures necessary to bring the system into full compliance with these Rules and Regulations for recycled water service including, but not limited to Section 5.3 thereof and the District's Procedures Guide and Construction Manual. No potable water facilities shall be connected to or incorporated in the recycled water system that have not been approved for recycled water service by the District.



## 5.6 ALTERNATE FINANCING FOR AFFORDABLE AND/OR LOW INCOME HOUSING PROJECTS

- 5.6.1 **Request for Public Financing.** If property within the District for which water, sewer and/or recycled water service is requested will include not less than ten percent of the units as affordable and/or low income housing units as herein defined or has been designated by the City of Irvine, County of Orange, or other such entity for land use which requires that a portion of the units being developed shall be affordable and/or low income housing units as herein defined, any such applicant, owner or customer when requesting water, sewer and/or recycled water service for such property may request the District to initiate proceedings pursuant to applicable laws to form a special assessment district for the purpose of publicly financing the offsite and onsite water, sewer and/or recycled water facilities necessary to serve said development as well as any assessable portion of the future capital costs which will be incurred by or benefit the initial property owners at the time of connection to said facilities. The proposed assessment district shall include all of the area eligible for alternate financing as provided for in this Section 5.65.1 and such other area logically served by the facilities as determined by the District in its discretion. This proviso is intended to include the affordable and/or low-income housing units as well as the market rate units for which service is requested pursuant to this Section 5.65.1.
- 5.6.2 **Initiation of Public Financing.** Upon receiving a request pursuant to Section 5.65.1, the District shall, unless it makes the findings set forth in Section 5.65.3, initiate proceedings pursuant to applicable laws to form a special assessment District for the purpose of publicly financing the offsite and onsite water, sewer and/or recycled water facilities necessary to serve said development as well as any assessable portion of the future capital costs which will be incurred by or benefit the initial property owners at the time of connection to said facilities.
- 5.6.3 **Refusal to Initiate Public Financing.** The District may deny a request made pursuant to Section 5.65.1 only after notice and a public hearing and only if it finds that such assessment district financing is no longer consistent with sound municipal financing practices or is not economically feasible for the particular project. If other means of such alternate financing are available and are consistent with sound municipal financing practices, such other means of financing shall be implemented by the District. In making a finding under this Section 5.65.3, the District shall render a written decision which identifies the evidence it relied upon and the reasons supporting its decision.
- 5.6.4 **Time for Acting on Request.** The District shall act upon a request made pursuant to Section 5.65.1 within 60 days of the receipt of the request.
- 5.6.5 **Affordable and/or Low Income Housing.** “Affordable and/or Low Income Housing” has the same meaning as used in the housing element adopted pursuant to Government Code Section 65580 of the governmental agency having jurisdiction over the zoning of any given development.

- 5.6.6 **Off-Site Facilities.** “Off-Site Facilities” means other than in-tract facilities which are not paid for by the District pursuant to its Rules and Regulations from general obligation bonds or otherwise.
- 5.6.7 **Coordination with Other Agencies.** When possible, in the event that District agrees to initiate proceedings pursuant to Section 5.65.1, the District will attempt to coordinate such proceedings with similar proceedings initiated by another agency or other agencies having jurisdiction over other aspects of the infrastructure required for the development such as, but not by way of limitation, streets, lighting, open space, sidewalks, and curbs.

## SECTION 6: FACILITIES OPERATION

### 6.1 OFFSITE WATER, SEWER, RECYCLED WATER AND NATURAL TREATMENT FACILITIES

Operation and surveillance of all of the District's offsite water, sewer, recycled water and natural treatment system facilities, including, but not limited to, water, sewer, and recycled water pipelines, reservoirs, pumping stations, fire hydrants, manholes, valves, connections, supply interties, treatment facilities, and other appurtenances and property up to and including the District's meter, shall be under the management and control of the District. No other persons except authorized employees and/or representatives of the District shall have any right to enter upon, inspect, operate, adjust, change, alter, move, or relocate any portion of the foregoing or any of the District's property. In the event that such should occur, all charges and penalties shall be applicable and collected. Such action shall also be in violation of any and all applicable federal, state, and local statutes, ordinances, regulations, and other requirements.

### 6.2 ONSITE FACILITIES

6.2.1 **General.** The operation and surveillance of onsite water distribution, sewer collection, and recycled water distribution facilities are the responsibility of the applicant, owner, or customer.

#### 6.2.2 **Onsite Recycled Water Facilities**

(1) The operation and surveillance of all onsite recycled water system facilities using the District's recycled water, shall be under the management of an "Onsite Recycled Water Supervisor" designated by the applicant, owner, or customer and approved by the District.

(2) If there is a non-resident owner, a local Onsite Recycled Water Supervisor shall be appointed. For single-family residences which have a recycled water service connection, the owner shall be considered to be the designated "Onsite Recycled Water Supervisor" unless otherwise indicated on the application for the service connection request. In the event that someone other than the owner is designated as the "Onsite Recycled Water Supervisor" and this person is no longer associated with the property, the owner shall again be considered the "Onsite Recycled Water Supervisor" until written notification is made to the District. The District shall furnish the name of the Onsite Recycled Water Supervisor to the Regional Water Quality Control Board and State and County Health Departments at least 30 days prior to commencing service.

(3) However, pursuant to Section 8.2 of these Rules and Regulations, the Manager or authorized representatives of the District shall monitor and inspect the entire recycled water system, including onsite and offsite facilities, and for these purposes shall have the right to enter upon the customer's premises during reasonable hours.

(4) The Onsite Recycled Water Supervisor shall be responsible for the installation, operation, and maintenance of the onsite recycled water system, enforcing applicable requirements of the District's permits, preventing potential hazards related to such system, maintenance of the system plans in "as-built" form, and distribution of recycled water in accordance with applicable laws and permits held by the District.

(5) In particular, but not by way of limitation, the Onsite Recycled Water Supervisor shall have the following responsibilities in relation to operation of onsite facilities:

- (a) To make sure that all operations personnel are trained and familiarized with the use of recycled water.
- (b) To furnish their operations personnel with maintenance instructions, controller charts, and record drawings to ensure proper operation in accordance with the onsite facilities design and these Rules and Regulations.
- (c) To prepare and submit to the District one (1) set of record drawings.
- (d) To notify the District of any and all updates or proposed changes, modifications, or additions to the onsite facilities, which changes shall require approval by the District and shall be designed and constructed according to the requirements, conditions, and standards set forth in the District's Procedures Guide and Construction Manual which document is on file at the office of the District, and by this reference is incorporated herein and set forth in these Rules and Regulations, including but not limited to Section 5.3 thereof. In accordance with the above referenced requirements, conditions, and standards changes must be submitted to the District for plan check and approval prior to construction. The construction shall be inspected by the District, and revised record drawings and controller charts shall be approved by the District. The District may, if it deems such to be in the best interest of the District, waive or modify any of the foregoing.
- (e) To ensure that the recycled water facilities remain in accordance with these Rules and Regulations including the District's Procedures Guide and Construction Manual. For example, but not by way of limitation, as stated in the design criteria section of the above referenced specifications:
  - (1) Cross-connections between potable water facilities and onsite recycled water facilities are forbidden.
  - (2) Hose bibs on recycled water facilities are forbidden.

- (3) Drinking fountains shall be protected from the spray of recycled water.
  - (4) The District shall provide special labels for any backflow preventer and house pressure regulator, and homeowner agrees to inform plumbing or landscaping contractors of the presence of recycled water on the site.
- (f) To operate and control the system in order to prevent direct human consumption of recycled water and to control and limit runoff. The applicant, owner, or customer shall be responsible for any and all subsequent uses of the recycled water. Operation and control measures to be utilized in the regard shall include, where appropriate, but not be limited to the following:
- (1) Onsite recycled water facilities shall be operated to prevent or minimize discharge onto areas not under control of the customer. Full circle sprinklers shall not be used adjacent to sidewalks, roadways, and property lines and sprinkler types shall be selected so as to confine the discharge from sprinklers to the design area.
  - (2) The operation of the onsite recycled water facilities shall be during the periods of minimal use of the service area. Consideration shall be given to allowing a maximum dry-out time before the design area will be used by the public.
  - (3) Recycled water shall be applied at a rate that does not exceed the infiltration rate of the soil. Where varying soil types are present, the design and operation of the recycled water facilities shall be compatible with the lowest infiltration rate of the soil present.
  - (4) When the application rate exceeds the infiltration rate of the soil, automatic systems shall be utilized and programmed to prevent or minimize the ponding and runoff of recycled water. The sprinkler shall not be allowed to operate for a time longer than the landscape's water requirement. If runoff occurs before the landscape's water requirements are met, the automatic controls shall be reprogrammed with additional watering cycles of shorter duration to meet the requirements. This method of operation is intended to control and limit runoff.
- (g) To orally report any failure in the onsite recycled water system that causes an unauthorized discharge of recycled water, or other non-compliance with applicable laws and the District's permits to the District and to the Regional Water Quality Control Board and State and County Health Departments, within 24 hours from the time the

Onsite Recycled Water Supervisor becomes aware of the circumstances. The Onsite Recycled Water Supervisor shall also make a written submission to the District, with a copy to the Regional Water Quality Control Board and State and County Health Departments, within five days of the time the Onsite Recycled Water supervisor becomes aware of the circumstances, which shall contain (a) a description of the non-compliance and its cause; (b) the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and (c) steps taken or planned to reduce, eliminate and prevent recurrence of the non-compliance.

- (h) To comply with any and all applicable Federal, State, and local statutes, ordinances, regulations, contracts, these Rules and Regulations, the service application and agreement, and all requirements prescribed by the Manager and the Board pursuant to Section 4. In the event of violation, all charges and penalties shall be applied and collected by the district.

6.2.3 **Onsite Recycled Water Supervisor Training Program.** The District may, from time to time, require that an “Onsite Recycled Water Supervisor” obtain instruction in the use of recycled water, such instruction being provided by or approved by the District.

## SECTION 7: USE OF DISTRICT SEWAGE FACILITIES

### 7.1 GENERAL

- 7.1.1 The provisions established in Section 7 shall pertain to all discharges into any District sewage collection facility that either directly or indirectly transports wastewater to the District's Michelson Water Recycling Plant. The last paragraph of this Section 7.1 provides information relating to the applicable requirements for discharges into District sewage collection facilities that transport wastewater to facilities other than the Michelson Water Recycling Plant.
- 7.1.2 Pursuant to the authority provided by California Government Code Section 54739, 54740, and by other applicable provisions of law, provisions are made in this document for the regulation of wastewater discharges into the District's sewage facilities in order to comply with Federal and State of California policies and requirements and to permit the District to meet applicable standards of treatment plant effluent quality. These Rules and Regulations establish quantity and quality limitations on all wastewater discharges, which may adversely affect the District's sewage systems, processes, or effluent quality. It is the intent of these limitations to improve the quality of wastewater being received for treatment; an implication of this intent is the District's policy of discouraging an increase in the quantity (mass emission) of waste constituents being discharged. This document also provides for regulation of the degree of waste pretreatment required, the issuance of permits including those for wastewater discharge connections, and the establishment of penalties for violation of these Rules and Regulations.
- 7.1.3 Since the District is committed to a policy of wastewater renovation and reuse in order to provide an alternate source of water supply, the renovation of wastewater through secondary and tertiary wastewater treatment processes may necessitate more stringent quality requirements on wastewater dischargers than those required by other governmental regulatory agencies.
- 7.1.4 The District has joined the Orange County Sanitation District (OCSD) in order to secure an alternate method of sewage treatment and disposal. To accomplish the administration of this union within the portion of the District that is within Revenue Area 14 of OCSD, the District entered with OCSD into a Memorandum of Understanding effective February 11, 1987, to provide for cooperative implementation of these Rules and Regulations and the ordinance of the Orange County Sanitation District as part of its regulations. In the event of a conflict between the District's Rules and Regulations and OCSD's ordinance, OCSD's ordinance shall have precedence, unless the District's Rules and Regulations are more stringent. The OCSD ordinance is also applicable in areas of the District that are within other portions of OCSD that do not transport water to the District's Michelson Water Recycling Plant. Similarly, the area of the District within the service area of the South Orange County Wastewater Authority (SOCWA) is subject to SOCWA's discharge regulations as adopted by the District, and the

area discharging to the Chiquita System of Santa Margarita Water District (SMWD), the Portola Hills area, is subject to SMWD's discharge regulations as adopted by the District. In each case where dischargers are subject to the discharge regulations of two agencies, it is the responsibility of the discharger to meet the discharge requirements of both agencies.

## 7.2 SPECIAL DEFINITIONS

In addition, unless otherwise defined herein, terms related to water quality shall be as adopted in the latest edition of Standard Methods for the Examination of Water and Wastewater, published by the American Public Health Association, the American Water Works Association and the Water Environment Federation (herein referred to as "**Standard Methods**"). The testing procedures for waste constituents and characteristics shall be as provided in 40 CFR 136, (Code of Federal Regulations: Title 40; Protection of Environment; Chapter I United States Environmental Protection Agency (US EPA); Part 136, Test Procedures for the Analyses of Pollutants), or as specified herein. Other terms not herein defined shall have the definitions given such terms in the latest adopted applicable editions of the California codes applicable to building construction adopted pursuant to the California Building Standards Law.

The terms hereinafter set forth shall have the following meanings when used in these Rules and Regulations or any permits or orders issued pursuant hereto, and the following definitions supersede the definitions in Section 2 for purposes of this Section 7:

**ADMINISTRATIVE COMPLAINT** means a document used by the District to initiate a proceeding to impose civil penalties pursuant to Section 7.6.~~9~~~~2.7~~~~(2)~~.

**BIOCHEMICAL OXYGEN DEMAND (BOD)** means the quantity of oxygen utilized in the biological oxidation of organic matter under standard laboratory procedure in five (5) days at twenty (20) degrees Celsius expressed in terms of milligrams per liter mass per volume (mg/l) as determined by appropriate testing procedure.

**BUILDING DRAIN - SANITARY** means that part of the lowest horizontal piping of a drainage system which receives sanitary or industrial sewage only, inside the walls of a building and conveys it to the building sewer beginning three (3) feet outside the building wall.

**BUILDING DRAIN - STORM** means that part of the lowest horizontal piping of a drainage system which receives stormwater or other clear water discharge, but no wastewater, from soil and other drainage pipes inside the walls of a building and conveys it to the building sewer beginning three (3) feet outside the building wall.

**BUILDING SEWER - SANITARY** means a sewer pipe receiving flow from a single building and connecting to a sewer main or lateral, and constructed on private property, except for street crossing.

**BUILDING SEWER - STORM** means the extension from the building storm drain to the public sewer or other place of disposal which conveys storm water or other clear water drainage, but no sanitary or industrial sewage.



**BYPASS** means the intentional diversion of waste streams from any location within an industrial users facility not approved in a user's permit.

**CALIFORNIA WATER DISTRICT LAW** means the law of the State of California that governs the formation of California Water Districts and establishes procedures and powers of such Districts.

**CALIFORNIA TOXICS RULE** means the most current update of numeric criteria for priority toxic pollutants established for the State of California as codified in 40 CFR Part 131.38.

**CHEMICAL OXYGEN DEMAND (COD)** means the measure of chemically oxidizable material in domestic or other waste waters as determined by appropriate testing procedures and expressed in terms of milligrams per liter (mg/l).

**CLASS I USER** means any user who discharges wastewater that is subject to Federal Categorical Pretreatment Standards; or averages 25,000 gallons per day or more of regulated process wastewater; or is determined to have a reasonable potential to adversely affect the District's facilities or operation or for violating any pretreatment standard, local limit, or discharge requirement; or may cause pass through or interference with the District's or OCSD sewage facilities.

**CLASS II USER** means any industrial user who discharges wastewater at a volume greater than 10,000 gallons per day and has a BOD and Suspended Solids greater than 375 mg/L, that discharges waste other than sanitary, and that is not otherwise required to obtain a Class I permit.

**CODE OF FEDERAL REGULATIONS (CFR) or FEDERAL REGULATIONS** means the codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government.

**COLIFORM** means any number of organisms common to the intestinal tract of man and animals whose presence in sanitary sewage is an indicator of pollution.

**COLLECTION SEWER** means a sewer whose primary purpose is to collect wastewaters from individual point source discharges.

**COMBINED SEWAGE** means a combination of both wastewater and storm or urban runoff.

**COMBINED SEWER** means a sewer intended to receive both wastewater and storm or urban runoff.

**COMPATIBLE POLLUTANT** means BOD, suspended solids, pH, coliform bacteria, and such additional pollutants as are now or may be in the future specified and controlled by the District's permit, for its wastewater treatment works as said works have been designed and are operated to reduce or remove such pollutants. Some compatible pollutants may be considered non-compatible when discharged in significant quantities.

COMPOSITE SAMPLE means a collection of individual samples obtained at selected intervals based on an increment of either flow or time. The resulting mixture (composite sample) forms a representative sample of the waste stream discharged during the sample period. Samples will be collected during the time manufacturing, processing, and/or sewer discharge occurs.

DEPARTMENT HEAD means that person duly designated by the General Manager to direct the Industrial Waste Program and perform those delegated duties as specified in these Rules and Regulations.

DISCHARGER means any public or quasi-public agency, including the State of California and the United States of America but not including the District, individual, partnership, firm, company, association, society, corporation, or group discharging, causing the discharge of, or proposing to discharge or cause the discharge of any wastewater into a public sewer. Used interchangeably with the term “User” and “Industrial User”.

DISSOLVED SOLIDS means that concentration of matter in the sewage consisting of colloidal and particulate matter 0.45 micron in diameter or less, and both organic and inorganic molecules and ions present in solution.

DISTRICT CONNECTION CHARGE means a fee imposed by the District for connecting directly to a public sewer or to a sewer which ultimately discharges into the District sewage facility.

DISTRICT’S SEWAGE FACILITIES means any property belonging to the District used in the treatment, reclamation, reuse, transportation, or disposal of wastewater or sludge.

DOMESTIC WASTEWATER MEANS THE LIQUID AND SOLID WATERBORNE WASTES DERIVED FROM THE ORDINARY LIVING PROCESSES of humans of such character as to permit disposal, without special treatment, into the public sewer or by means of a private disposal system.

DWELLING UNIT means one or more habitable rooms which are intended or designed to be occupied by one family with facilities for living, sleeping and cooking.

EASEMENT means an acquired legal right or interest for the specific limited use of land owned by others.

EFFLUENT means any liquid outflow that is discharged to the sewer.

ENFORCEMENT COMPLIANCE SCHEDULE AGREEMENT (ECSA) means a mutual agreement between the District and permittee in accordance with Section 7.6.42.2.

FEDERAL PRETREATMENT REQUIREMENT, NATIONAL PRETREATMENT STANDARD, PRETREATMENT STANDARD or STANDARD means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with 40 CFR 307 (b) and (c) which applies to Industrial Users. This term includes prohibitive

discharge limits established pursuant to 40 CFR 403.5. Categorical pretreatment standards are promulgated in 40 CFR Chapter I, Subchapter N or 40 CFR Parts 401-471.

**FLOOR AREA** means the area included within the surrounding exterior walls of a building or portion thereof, exclusive of ramps, docks, vent shafts and courts. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above.

**GARBAGE** means solid wastes from the domestic and commercial preparation, cooking and dispensing of food, and from the handling, storage and sale of food.

**GRAB SAMPLE** means a sample taken from a waste stream on a one-time basis without regard to the flow in the waste stream and without consideration of time.

**INDUSTRIAL USER** means any user that discharges industrial wastewater.

**INDUSTRIAL WASTEWATER** means all liquid wastes resulting from the processes employed in industrial manufacturing, trade, or business establishments, as distinguished from domestic wastes.

**INDUSTRY** means any establishment listed in the Standard Industrial Classification Manual, 1972 Edition, or revision thereof, which is categorized in Divisions A, B, D, E, or I.

**INFILTRATION** means the water unintentionally entering the District's sewage facilities, or sanitary building drains and sewers, from the ground, through such means as, but not limited to, defective pipes, pipe joints, connections, or manhole walls.

**INFILTRATION/INFLOW** means the total quantity of water from both infiltration and inflow without distinguishing the source.

**INFLOW** means the water discharge into the District's sewage facilities, or building storm drains and sewers, from such sources as, but not limited to, roof leaders, cellar, yard, and area drains, foundation drains, unpolluted cooling water discharges, drains from springs and swampy areas, manhole covers, cross connections from storm sewers and/or combined sewers, catch basins, storm waters, surface runoff, street wash waters or drainage. (Inflow does not include, and is distinguished from infiltration.)

**INSPECTOR** means a person authorized by the General Manager to inspect any existing or proposed wastewater generation, conveyance, processing and disposal facilities.

**INTERCEPTOR SEWER** means a sewer whose primary purpose is to transport wastewater from collection sewers to a treatment facility.

**INTERFERENCE** means a discharge which, by itself or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the District's facilities, its treatment processes or operations, or its sludge process, use, or disposal, or causes a violation of any requirement of the District's permits (including an increase in the magnitude or duration of a violation) or prevents sewage sludge use or disposal in compliance with the

following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**LOCAL SEWERING AGENCY** means any public or private corporation duly authorized under the laws of the state of California to construct and/or maintain public sewers.

**MANIFEST** means that receipt which is retained by the generator of wastes for disposing solid wastes, recyclable wastes or liquid wastes as required by the District.

**MASS EMISSION RATE** means the weight of material discharged to the District's sewage facilities during a given time interval. Unless otherwise specified, the mass emission rate means pounds per day of a particular constituent or combination of constituents.

“MAY” is permissive (see “Shall”).

**MEMORANDUM OF UNDERSTANDING (MOU)** means any memorandum of understanding or other agreement between the District and OCSD governing the administration of the joint industrial waste pretreatment program.

**MICROGRAMS PER LITER ( $\mu\text{g/l}$ )** means a unit measurement of the concentration of a water or wastewater constituent. It is 0.001 gram of the constituent in one (1) cubic meter of water. It has replaced the unit formerly used, parts per billion, to which it is approximately equivalent in reporting the results of water and wastewater analyses.

**MILLIGRAMS PER LITER (mg/l)** means a unit measurement of a concentration of water or wastewater constituent. It is 0.001 gram of the constituent in 1,000 milliliters of water. It has replaced the unit formerly used, parts per million, to which it is approximately equivalent in reporting the results of water and wastewater analyses.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)** means the Federal pollution regulation system as detailed in Public Law 92-500, Section 402, or a permit issued pursuant to such system.

**NEW SOURCE** means those sources that are new as determined by 40 CFR 403.3 (k) as revised October 17, 1988.

**NON-COMPATIBLE POLLUTANT** means any non-treatable waste product, including non-biodegradable dissolved solids, which is not a compatible pollutant as defined herein.

**NORMAL DOMESTIC WASTEWATER** means all household-type discharges from places of human habitation including sanitary conveniences, kitchen and laundry wastes. Discharge wastes strength shall be considered to average 250 mg/l BOD and 250 mg/l Suspended Solids at a discharge rate of 100 gallons per capita per day.

NORMAL WORKING DAY means the period of time during which the dischargers production or operation is taking place.

NPDES PERMIT means the National Pollutant Discharge Elimination System permit that is issued by the EPA setting the limits on constituents that the permittee may legally discharge. The limits are set in both concentration and quantity.

OCSD means the Orange County Sanitation District.

OCSD ORDINANCE means OCSD's ordinance establishing wastewater discharge regulations, currently in effect from time to time.

PASS THROUGH means discharge through the District's facilities to navigable water or point of reuse which, alone or in conjunction with discharges from other sources, is a cause of a violation of the District's NPDES permit or Regional Water Quality Control Board Order.

PERMITTEE means a discharger who has received a permit to discharge wastewater into the District's sewage facilities subject to the requirements and conditions established by the District and/or OCSD.

pH means the logarithm of the reciprocal of the quantity of hydrogen ions in moles per liter of solution used in expressing both acidity and alkalinity on a scale ranging from 0 to 14, where 7 represents neutrality, numbers less than 7 increasing acidity, and more than 7 increasing alkalinity.

POPULATION EQUIVALENT means a term used to evaluate the impact of industrial or other waste on a treatment works or stream. One population equivalent of normal domestic wastewater is 100 gallons of sewage per day, and/or 0.17 pounds of BOD, and/or 0.21 pounds of suspended solids. The impact on a treatment works is evaluated as the equivalent of the highest of the three parameters. Impact on a stream is the higher of the suspended solids parameters.

POLLUTANT means any constituent or characteristic of wastewaters on which discharge limitation may be imposed either by the District or the regulatory bodies empowered to regulate the District.

POTW means Publicly Owned Treatment Works.

PRETREATMENT means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to discharge of the wastewater into the District's sewage facilities. The reduction or alteration can be obtained by physical, chemical or biological process, or process changes by other means.

PRETREATMENT FACILITY means any works or devices for the treatment or flow limitation of wastewater prior to discharge into a public sewer.

PRETREATMENT STANDARDS means requirements for the quality of wastewaters discharged into the District's sewage facilities.

PRIORITY POLLUTANTS means a listing of the toxic pollutants identified by EPA as having the greatest environmental concern and as non-compatible and requiring pretreatment prior to discharge in order to prevent interference with District's operation, or to prevent sludge contamination or treatment system pass-through into receiving waters or into the atmosphere.

PRIVATE SEWER means a sewer which is not owned by the District.

PROBATION ORDER means an order issued with terms and conditions to a permittee upon a violation of these Rules and Regulations or the terms, conditions, and limitations of its discharge permit, or upon a failure to make payment to the District of user charges, non-compliance fees, or any other fees.

PUBLIC AGENCY means the United States and its agents, the State of California and any city, county, district, or other local governmental authority or public body of or within the State of California.

PUBLIC SEWER means a sewer owned and operated by the District, or a sewer operated by a local public agency which is tributary to the District's sewage facilities.

PUMPING STATION means a station positioned at a location in a sewer system at which wastewater is pumped to a higher level.

REGIONAL ADMINISTRATOR means the Regional Administrator of Region IX of the EPA.

REGIONAL BOARD means the California Regional Water Quality Control Board, Santa Ana Region or San Diego Region.

REGULATORY AGENCIES are those agencies having regulatory jurisdiction over operations of the District, such as including but not limited to the U.S. Environmental Protection Agency (EPA), the State Department of Health Services (DOHS), the State Water Resources Control Board (SWRCB), the California Regional Water Quality Control Board (RWQCB), the South Coast Air Quality Management District (SCAQMD) and Orange County Health Care Agency.

REGULATORY COMPLIANCE SCHEDULE AGREEMENT (RCSA) means an agreement between the District and permittee requiring the permittee to implement pretreatment practices and/or install equipment to ensure compliance with future revised categorical pretreatment standards or revised discharge limitations.

RULES AND REGULATIONS means that document entitled "Rules and Regulations for Water, Sewer, and Recycled Water Service" containing District requirements, conditions, and limitations for connecting and discharging to the District's sewage facilities and other requirements, conditions and limitations, as may be amended and modified.

**SAMPLE POINT** means a location approved by the District, from which wastewater can be collected that is representative in content and consistency of the entire flow of wastewater being sampled.

**SAMPLING AND EVALUATION PROGRAM (S&E)** means a program for the determination of mass emission of constituents or compliance or non-compliance with the conditions specified in the user's permit.

**SAMPLING FACILITIES** means structure(s) provided at the user's expense for the District or user to measure and record wastewater constituent mass, concentrations, collect a representative sample, or provide access to plug or terminate the discharge.

**SANITARY SEWER** means a sewer which carries sanitary and industrial wastes, and to which storm, surface and groundwater are not intentionally admitted.

**SEWAGE** means wastewater.

**SEWER** means a pipe or conduit that carries wastewater or drainage water.

**SEWER LATERAL** means a building sewer as defined in the latest edition of the California Plumbing Code. It is the wastewater connection between the building's wastewater facilities and a public sewer system.

**SEWAGE FACILITIES OR SYSTEM** means any and all facilities used for collecting, conveying, pumping, treating, and disposing of wastewater and sludge.

“SHALL” is mandatory; (see “May”).

**SHREDDED GARBAGE** means garbage that has been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than 1/2 inch (1.25 centimeters) in any dimension.

**SIGNIFICANT INDUSTRIAL USER** means all users subject to Federal Categorical Pretreatment Standards and any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater; contributes a process waste stream which makes up 5% or more of the average dry weather hydraulic or organic capacity of the District's treatment facilities; or is designated by the District as a significant industrial user.

**SIGNIFICANT NON-COMPLIANCE** means a compliance status a) in which a major violation remains uncorrected for 45 days after notification of non-compliance; or b) which is a result of chronic violations (66% or more of all samples which exceed the daily maximum limit or average limit of the same constituent during a 6-month period), or acute violations (33% or more of all samples which exceed the product of the daily maximum limit or average maximum limit times the applicable technical review criterion in a 6-month period; or c) which is a result of failure to provide reports in response to Notice of Violation, permit application information, Report of Progress, a Report of Non-Compliance, or other reports required to administer these Rules and Regulations, within



30-days from the due date; d) any violation of any limitation that the District determined to cause alone or in combination with other discharges, interference or pass through; e) any discharge which has caused imminent endangerment to human health, welfare or to the environment, or has resulted in the District's exercise of its emergency authority (Section 7.6.~~82.6~~); f) failure to meet, within 90 days after the scheduled date, a compliance schedule milestone contained in a permit or enforcement action, for starting construction, completing construction, or attaining final compliance; or g) failure to accurately report non-compliance.

**SLUDGE** means any solid, semi solid or liquid decant, supernate or supernate from a manufacturing process, utility service, or pretreatment facility.

**SLUG LOAD** means any discharge of water or wastewater which in concentration of any pollutant or in quantity of flow will cause interference with the District's reclamation plant or subsequent Publicly Owned Treatment Works (POTW).

**SPENT SOLUTIONS** means any substance defined as a hazardous waste by RCRA, 40 CFR 261.21 through 261.24, and unable to be used for its original purpose.

**SPILL CONTAINMENT** means an approved protection system installed by the permittee to prohibit the accidental discharge to the sewer of non-compatible pollutants.

**STANDARD INDUSTRIAL CLASSIFICATION (SIC)** means a system of classifying a user as identified in the 1987 or subsequent SIC manual as prepared by the Office of Management and Budget.

**STANDARD METHODS** means the laboratory procedures set forth in the latest edition, at the time of analysis, of "Standard Methods for the Examination of Water and Wastewater" prepared and published jointly by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation, and 40 CFR Part 136, 3, 4 and 5, and/or other recognized procedures established by EPA and California Regional Water Quality Control Board.

**STORM WATER** means all water directly derived from rainwater which has not been utilized in domestic, agricultural, industrial or other beneficial use.

**SUSPENDED SOLIDS (SS)** means the solids that either float to the surface or are suspended in water, wastewater or other liquids and which are removable from said liquid through standard laboratory filtration procedure.

**TECHNICAL REVIEW CRITERIA** means those factors which, when multiplied by the appropriate limitation, set the lower limit of a significant violation. The Technical Review Criteria factor is 1.2 for all limitations except for BOD, total suspended solids, fats, oil, and grease where the factor is 1.4.

**TOTAL ORGANIC CARBON (TOC)** means the measure of total organic carbon in domestic or other wastewater as determined by the appropriate testing procedure.



TOTAL SOLIDS means the sum of suspended and dissolved solids.

TOXIC SUBSTANCES means any pollutant or combination of pollutants which upon exposure to or assimilation into any organism will cause adverse effects, such as cancer, genetic mutations and physiological manifestations.

UNPOLLUTED WATER means water to which no constituent has been added either intentionally or accidentally.

USER means any person who discharges or causes a discharge of wastewater directly or indirectly to a public sewer. User shall also have the same meaning as “Discharger” or “Industrial User”.

USER CHARGE means a charge imposed by the District for the provision of a special service not normally provided by the District, such as situations involving unusual quantity or quality requirements.

WASTE means sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing or processing operation of whatever nature, including such wastes placed within containers of whatever nature, prior and for the purpose of disposal.

WASTE MINIMIZATION PRACTICES means plans or programs intended to reduce or eliminate discharges to the District’s sewage system or to conserve water, including, but not limited to, product substitutions, housekeeping practices, inventory control, employee education, and other steps as necessary to minimize wastewater and/or solid waste produced.

WASTEHAULER means any person or entity, duly licensed, carrying on or engaging in vehicular transport of waste as part of, or incidental to, any business for that purpose.

WASTEWATER DISCHARGE PERMIT means any of the following permits: Class I Permit, Class II Permit, Special Purpose Permit or FOG Wastewater Discharge Permit. Used interchangeably with the word “permit”.

WASTEWATER TREATMENT means the structures, equipment and processes required to collect, transport and treat domestic and industrial wastewater and dispose of the effluent and accumulated residual solids.

### 7.3 WASTEWATER DISCHARGE REGULATIONS

**7.3.1 Prohibitions and Limitations on Wastewater Discharges.** These prohibitions apply to all Users of District sewage facilities whether or not they are subject to Federal Categorical Pretreatment Standards or any other National, State or Local pretreatment standards or requirements. No person shall discharge or allow to be discharged wastewaters directly or indirectly into District’s sewage facilities that cause or are capable of causing, either alone or by interaction with other substances, interference with the operation of the District’s sewage facilities, including but not limited to the following:

- (1) Oils and Grease. Wax, grease or oil of mineral origin in a concentration of more than 100 mg/l whether emulsified or not, or any other waste containing substances which may precipitate, solidify or become viscous at temperatures between 32° and 150°F (0° and 65°C) at the point of discharge into the District's sewage facilities).
- (2) Explosive Mixtures. Liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the District's sewage facilities or to the operation of the Districts sewage facilities. At no time shall the discharge into the District's sewage facilities have a closed cup flash point less than 140°F (60°C). Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides.
- (3) Noxious Materials. Noxious or malodorous solids, liquids or gases, which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life, or are or may be sufficient to prevent entry into a sewer for its maintenance and repair.
- (4) Improperly Shredded Garbage. Garbage that has not been ground or comminuted to such a degree that all particles will be carried freely in suspension under flow conditions normally prevailing in the public sewers, with no particle greater than one-half (1/2) inch in any dimension.
- (5) Radioactive Wastes. No person shall discharge, or cause to be discharged, any radioactive waste into a public sewer except:
  - (a) When the person is authorized to use radioactive materials by the State Department of Health or other governmental agency empowered to regulate the use of radioactive materials;
  - (b) When the waste is discharged in strict conformity with current California Radiation Control Regulations (California Administrative Code, Title 17) for safe disposal;
  - (c) When the person is in compliance with all rules and regulations of all other applicable regulatory agencies; and,
  - (d) When a Class I permit has been obtained from OCSD.
- (6) Solid or Viscous Wastes. Solid or viscous wastes which will or may cause obstruction to the flow in a sewer, or otherwise interfere with the proper operation of the sewage facilities. Prohibited materials include, but are not limited to, grease, uncomminuted garbage, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags,

spent grains, spent hops, waste paper, wood, plastic, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, and similar substances.

- (7) **Slug Loads.** Wastewaters at a flow or containing such concentrations of pollutants that will cause interference with the District's treatment plant or subsequent POTW.
- (8) **Toxic Substances.** Any toxic substances in amounts exceeding established standards, and any chemical elements or compounds, phenols or other taste or odor producing substances, or other substances which are not susceptible to treatment or which may interfere with the biological processes or efficiency of the treatment processes, cause acute worker health and safety problems, or that will pass through the District's sewage facilities.
- (9) **Discolored Material.** Wastes with objectionable color not removable by the treatment process.
- (10) **Corrosive Wastes.** Any waste which will cause corrosion or deterioration of the District's sewage facilities. All wastes discharged to a public sewer must have a pH value in the range of (6) to (12) standard units. Prohibited materials include, but are not limited to, acids, sulfides, concentrated chloride and fluoride compounds and substances which will react with water to form acidic products.
- (11) **Organic Phosphorous Compounds.** Any amounts of organic phosphorus compounds released in a discharge at a flow rate or in a concentration which will cause pass through or interference with the sewage facilities.
- (12) **Non-Compliant Waste.** Any waste not in compliance with national categorical pretreatment standards as represented in 40 CFR Chapter I Subchapter N or 40 CFR Parts 401-471.

7.3.2 **Storm Water.** Ground water, street drainage, subsurface drainage, foundation drains, or yard drainage shall not be discharged directly or indirectly to the District's sewage facilities. The District at its sole discretion may approve the discharge of such water by granting a Special Purpose Permit only when no alternative method of disposal is reasonably available. The applicant shall bear the burden of demonstrating that no alternative method of disposal is reasonably available. If a Special Purpose Permit is granted for the discharge of such water into a sewer, the user shall pay connection fees, applicable charges and fees for use and shall meet such other conditions as required by the District.

7.3.3 **Self-Regenerative Water Softeners.** Any brine waste discharge from an onsite self-regenerative water softener unit is prohibited. Installation of such onsite self-regenerative water softener units within the District is specifically prohibited. However, the District may, on an individual basis, approve such units if the applicant, owner, or customer demonstrates that such brine waste will be discharged into a permanent facility other than a District sewer as approved by the plumbing codes of the cities of Irvine, Laguna Beach, Newport Beach, Orange,

Santa Ana, Tustin and the County of Orange or its successors, as may be applicable or as deemed justified by the District.

7.3.4 **Unpolluted Water.** Unpolluted water, such as single-pass cooling water, shall not be discharged through direct or indirect connection to a public sewer. The District may approve the discharge of such water only when no alternative method of disposal is reasonably available by issuing a Special Purpose Permit.

7.3.5 **Septic Tank and Cesspool Wastes.** Discharges of septic tank, or cesspool wastes, into the public sewer or directly into the treatment plant facilities is prohibited.

7.3.6 **Temperature.** No person shall discharge wastewater with a temperature higher than 140°F (60°C). Heat in discharged wastewater shall not cause the temperature of wastewater entering the headworks of any wastewater treatment plant to exceed 104°F (40°C).

7.3.7 **Point of Discharge.** No person, except District personnel involved in maintenance functions of sewer facilities, shall discharge any water, wastewater or any substance directly into a manhole or other opening in a sewer other than through an approved building sanitary sewer, unless upon written application by the user and approved by the District and payment of the applicable charges for use and fees.

#### 7.3.8 **Wastewater Strength Limitations**

- (1) No person shall discharge wastewater containing substances in excess of the quantities or concentrations listed in Exhibit B, Schedule of Rates and Charges entitled “Discharge Limits”, or containing other materials, or having other characteristics, including, but not limited to, ammonia, biochemical oxygen demand (BOD), chemical oxygen demand, total organic carbon, suspended solids, oil or grease of animal or vegetable origin, total dissolved solids, and phenolic compounds in quantities that may cause or are found to cause problems, pass through, or interference with the sewage facilities.
- (2) No person shall discharge wastewater containing in excess of 0.01 mg/l of pesticides as a daily maximum, to include, but not limited to the following: DDT (dichlorodiphenyltrichloroethane, both isomers), DDE (dichlorodiphenylethylene), DDD (dichlorodiphenyldichloroethane), Aldrin, Benzene Hexachloride (alpha, beta, and gamma isomers), Chlordane, Endrin, Endrin aldehyde, TCDD (2,3,7,8-tetrachlorodibenzo- p-dioxin), Toxaphene (alpha)-Endosulphan, (beta)-Endosulphan, Endosulphan sulfate, Heptachlor, Heptachlor epoxide, and Dieldrin.
- (3) No person shall discharge wastewater containing in excess of 0.01 mg/l of polychlorinated biphenyls as a daily maximum to include, but not limited to the following: Aroclors 1016, 1221, 1228, 1232, 1248, 1254, 1260, and 1262.

- 7.3.9 **Prohibition on Dilution.** No user shall increase the use of water in, or in any other manner attempt to dilute, a discharge as a partial or complete substitute for treatment to achieve compliance with these Rules and Regulations and the user's permit or to establish an artificially high flow rate for permit mass emission rates.
- 7.3.10 **Prohibition on Infectious Waste.** The District shall have the authority to require that any discharge of an infectious waste to the sewer be rendered non-infectious prior to discharge if the infectious waste is deemed to pose a threat to the public health and safety, or will result in any violation of applicable waste discharge requirements.
- 7.3.11 **Limitations on Disposal of Spent Industrial Solutions and Sludges**
- (1) Spent solutions, sludges, and materials of quantity or quality in violation of, or prohibited by these Rules and Regulations, or any permit issued under these Rules and Regulations must be disposed of in a legal manner at a legally acceptable point of disposal as defined by the appropriate Regulatory Agency. All waste manifests shall be retained for a minimum of three years, and made available to the District upon request.
  - (2) No person shall batch dump to the District's sewage facilities. Non-compliance fees applicable for such discharge will be as shown in Exhibit B, Schedule of Rates and Charges.
- 7.3.12 **New or Increased Pollutant Discharge.** No person shall increase the discharge of existing pollutants or discharge new pollutants that do not meet pretreatment standards, local limitations, or other requirements, or cause the District to violate any permit condition or limitation.
- 7.3.13 **Mass Emission Rate Determination.** Mass emission rates for non-compatible or compatible pollutants that are present or anticipated in the user's wastewater discharge may be set for each user and made a part of each user's permit. These rates shall be based on Local Discharge Limits contained in Exhibit C or Federal Categorical Pretreatment Standards, and the discharger's average daily wastewater discharge for the past three years, the most recent representative data, or other data acceptable to the General Manager or their designee.

#### 7.4 WASTEWATER DISCHARGE PERMITS

- 7.4.1 **General.** In addition to District connection charges required by these Rules and Regulations, all significant industrial users, proposing to connect to or discharge into the District's sewage facilities must first obtain a Wastewater Discharge Permit. No vested right shall be deemed given by issuance of permits provided for in this document. The issuance of a Wastewater Discharge Permit does not authorize the commission of any act causing injury to the person or property of another, nor relieve the discharger from compliance with, or protect the discharger from liability under Federal, State or local laws, nor guarantee the discharger a capacity right in the District's sewage facilities.

#### 7.4.2 Permit Application Procedure

Applicants for Wastewater Discharge Permits shall complete an application form available at the District's office. This application shall be accompanied by the applicable fees.

As part of the permit application process the District may require the submittal of detailed plans for a review of existing or proposed construction of pretreatment facilities, spill containment facilities, monitoring and metering facilities, and operating procedures. The approval of the District shall be received prior to the start of construction. This review of plans and procedures shall in no way relieve the user of the responsibility of modifying the facilities or procedures in the future, as necessary, to meet the requirements of these Rules and Regulations or any requirements of other Regulatory Agencies.

If required, the user shall submit four (4) copies of all drawings for review. All drawings shall include the following:

- (1) North arrow.
- (2) Scale size.
- (3) User name and address.
- (4) Drawing name and drawing number.
- (5) Date drawn or revised.
- (6) Name of drafter and person approving drawing.

These scaled drawings shall include but not be limited to depictions of the manufacturing process (waste generating sources), spill containment, pretreatment facilities, and monitoring/metering facilities. Schematic drawings of pretreatment facilities may be required. The District may also require that drawings be signed and sealed by a California Registered Chemical, Mechanical, or Civil Engineer.

Upon receipt of all required information, the application shall be processed and, upon approval, a permit will be issued, signed by a District representative, and returned to the applicant. When properly signed, the permit together with any documents attached thereto shall constitute a valid Wastewater Discharge Permit for the time period specified therein. Where the discharger becomes aware that relevant facts were omitted or incorrect information was submitted in the application, the facts or corrected information shall be promptly submitted to the District and the permit shall be amended if appropriate.

- 7.4.3 **Permit Conditions.** Wastewater Discharge Permits shall be expressly subject to all provisions of these Rules and Regulations and all other regulations, user charges and fees established by the District. The conditions of wastewater discharge permits shall be uniformly enforced by the District in accordance with these Rules and Regulations and applicable state and federal regulations. Permits may contain the following:

- (1) The unit charge or schedule of user charges and fees fixed in this section for the sewage to be discharged;
- (2) The average and maximum sewage constituents and characteristics which may be discharged into the District's sewage facilities;
- (3) Limits on rate and time of discharge or requirements for flow regulations and equalization;
- (4) Requirements for installation of inspection and sampling facilities;
- (5) Pretreatment requirements;
- (6) Specifications for monitoring programs which may include sampling locations, frequency and method of sampling, number, types and standards for tests and reporting schedule;
- (7) Requirements for submission of technical reports or discharge reports;
- (8) Requirements for maintaining plant records relating to sewage discharge as specified by the General Manager, and affording the General Manager access thereto;
- (9) Mean and maximum mass emission rates, or other appropriate limits when non-compatible pollutants are proposed or present in the user's sewage discharge;
- (10) A time schedule for meeting certain pretreatment requirements;
- (11) Other conditions as deemed appropriate by the General Manager to insure compliance with this section.

7.4.4 **Duration of Permits.** Permits shall be issued for a specified time period, not to exceed four years. If the user is not notified by the District ninety days prior to the expiration of the permit, the permit shall be extended one additional year. The terms and conditions of the permit are subject to modifications and change by the District and OCSD during the life of the permit as limitations or requirements are modified and changed. The user shall be informed of any proposed changes in his permit at least thirty days prior to the effective date of change. Any change or new conditions in the permit shall include a reasonable time schedule for compliance.

7.4.5 **Transfer of a Permit.** Wastewater Discharge Permits are issued to a specific operation. A Wastewater Discharge Permit shall not be reassigned or transferred or sold to a new owner or lessee, new user, different premises, or a new or changed operation. In the event of any change in the name, ownership or control of the discharger's operation or a change in the operation itself, the discharger shall so notify the District. The District may require the new owner or operator to submit a new permit application.



7.4.6 **Permit Renewal or Modification.** An industrial discharger shall file a new application with the District sixty days prior to the expiration of its existing waste discharge permit, or the implementation of changes in the operation of a discharger which increase flows beyond that specified in the existing permit or cause a significant change in the nature of the wastewater or location of the discharge, or which changes may result in non-compliance with these Rules and Regulations. A new application shall also be required to reestablish sewer service following revocation of a permit or upon disclosure of omitted relevant facts or incorrect information submitted in an application.

7.4.7 **Pretreatment.** Users shall make sewage acceptable under such limitations as may be established herein before discharging to the District's sewage facilities. Any facilities required to pretreat sewage to a level acceptable to the District and OCSD shall be provided and maintained at the user's expense. Detailed plans, specifications and other pertinent data showing the pretreatment facilities and operating procedures shall first be submitted to the General Manager for review, and shall be approved by the General Manager before construction of the facility. These plans shall be signed by an engineer or responsible officer certifying that they will meet the pretreatment requirements. The review and approval of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the District under provisions of this section. Any proposed changes in the pretreatment facilities or method of operation subsequent to issuing a permit shall be reported to and be approved by the General Manager before implementing such changes. Such approval of plans or changes therein shall not exempt the user from compliance with any applicable code, ordinance, rule, regulation or order of any regulatory agency or governmental authority.

7.4.8 **Protection from Accidental Discharge.** Each user shall prevent accidental discharge to the public sewer of prohibited wastes or other materials regulated by these Rules and Regulations or Federal categorical pretreatment standard by providing spill containment facilities. Such facilities shall be provided and maintained at the user's expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the General Manager for review, and shall be approved by the General Manager before construction of the facility and before making any changes therein. The review and approval of such plans and operating procedures or change therein will in no way relieve the user from the responsibility of modifying the facility as necessary to provide the protection necessary to meet the requirements of this section or any other applicable code, ordinance, rule, regulation or order of any regulatory agency or governmental authority.

7.4.9 **Procedure for Accidental Discharge.**

- (1) In the event the discharger is unable to comply with any of the permit conditions due to a breakdown of waste treatment equipment, accidents caused by human error or acts of God, the discharger shall notify the



District ~~by telephone within 24 hours as soon as of he or his agents have~~ knowledge ~~of~~ the incident, ~~but within 24 hours~~. Confirmation of this notification shall be made in writing within two weeks (14 calendar days) of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the date of the incident, as well as what steps are being taken to prevent the problem from recurring and the results of repeat sampling and analyses.

- (2) If it can be shown that the discharge is the cause of the District violating its discharge requirements or incurring extraordinary operational expenses or suffering loss or damage to the sewage facilities, then that discharger may be responsible for any costs or expenses, including assessments by other agencies or the court, incurred by District.

7.4.10 **Types of Permits.** The Wastewater Discharge Permit shall be in one of three forms and is dependent upon the volume and characteristics of wastewater to be discharged. The three Wastewater Discharge Permits are a Class I Permit, a Class II Permit, and a Special Purpose Permit.

- (1) **Class I Permit.** All Class I Users discharging or proposing to discharge into the District's sewage facilities must obtain a Class I Wastewater Discharge Permit jointly issued by the District and OCSD before discharging.
- (2) **Class II Permit.** A Class II permit shall be required for all Class II Users who are not required to obtain a Class I permit. The purpose of a Class II permit is to facilitate the collection of compatible pollutant surcharges from the user. All Class II Users discharging or proposing to discharge into the District's sewage facilities must obtain a Class II Wastewater Discharge Permit by filing an application pursuant to Section 7.4.2.
- (3) **Special Purpose Permit**
  - (a) A special purpose permit shall be required for a user proposing to discharge storm water, groundwater, surface runoff, subsurface drainage, or unpolluted water directly or indirectly to the District's sewage facilities. This permit may be granted when no alternative method of disposal is reasonably available, or to mitigate an environmental risk or health hazard. The applicant shall bear the burden of demonstrating that no alternative method of disposal is reasonably available.
  - (b) Applicants seeking a special purpose wastewater permit shall complete and file with the District, prior to commencing discharge, an application in the form prescribed by the District. This application shall be accompanied by the applicable fees, plumbing

plans, a detailed analysis of the alternatives for disposal, or other data needed by the District for review.

- (c) Discharge conditions and limitations shall be no less stringent than Section 7.3 of these Rules and Regulations and Article 2 of the OCSD Ordinance. For constituents not listed in Section 7.3 of these Rules and Regulations or in Article 2 of the OCSD Ordinance, the District shall exercise its sole discretion to base conditions and limitations on the California Toxics Rule and other water quality criteria.
- (d) Monitoring requirements contained in the Special Purpose Permit for storm water, groundwater, surface runoff, subsurface drainage, or unpolluted water shall be for those non-compatible pollutants known or suspected to exist in the discharge and at least one analysis prior to sewer discharge shall be performed for all constituents contained in the most current Environmental Protection Agency (EPA) "Priority Pollutant" list, excluding Asbestos, and in other water quality criteria deemed appropriate by the District.

7.4.11 **Monitoring.** Management of a pollution control program requires a constant flow of information on the quantity and quality of discharges into the District's sewage facilities. The monitoring of discharges serves three specific purposes. These purposes include ascertaining compliance with the Rules and Regulations, completion of necessary discharge reports as required, and determination of user charge fees, if applicable. There are several modes of a monitoring program. Self-Monitoring develops a data base, and provides the necessary information for determination of compliance and calculation of user charges, if applicable. This monitoring is performed by the user. Scheduled Monitoring is a systematic sampling and inspection survey of all industrial contributors to the District's sewage facilities in accordance with a predetermined schedule. Unscheduled Monitoring is a random spot check of users to ascertain permit compliance. Demand Monitoring is conducted when some disruption of the District's sewage facilities develops. The District will perform scheduled, unscheduled and demand monitoring to ensure compliance with the provisions of the Rules and Regulations and permits, and will review self-monitoring reports.

7.4.12 **Self-Monitoring.**

- (1) Users required to obtain a Wastewater Discharge Permit may be required to develop a self-monitoring and reporting program. The frequency of self-monitoring and reporting will be based on the following criteria as evaluated by the District:
  - (a) The effect of the discharger's wastewater on the District's sewage facilities;

- (b) The degree of toxic materials which may pass through the treatment plant;
  - (c) The need to ensure that any pretreatment standards are met;
  - (d) The size, nature, and type of the industrial wastewater discharge;
  - (e) The extent to which the user could contribute to violation of the District's discharge requirements.
- (2) Self-monitoring programs include, at minimum, the following:
- (a) A minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organics.
  - (b) For all other pollutants, 24-hour composite samples must be obtained through flow-proportional composite sampling techniques where feasible.
  - (c) Where flow proportional composite sampling is infeasible, samples may be obtained through time-proportional composite sampling techniques or through a minimum of four (4) grab samples where the User demonstrates that this will provide a representative sample of the effluent being discharged.
- (3) Samples collected shall be in accordance with proper sampling and handling techniques outlined in the latest edition of "Standard Methods" or that publication entitled "Methods for Chemical Analysis of Water and Wastes" published by the EPA, or other appropriate method approved by the Regional Board.

#### **7.4.13 Monitoring and Metering Facilities**

The General Manager may require the user to construct at his own expense monitoring and metering facilities to allow inspection, sampling and flow measurement of the sewage or internal drainage systems. The General Manager may also require sampling and metering equipment to be provided, installed and operated at the user's expense. The monitoring and metering facility should normally be situated on the user's premises. When such a location would be impractical or cause undue hardship on the user, the user may construct such facilities in the public right-of-way provided said user has obtained any and all permits required therefore and that such equipment is located so that it will not be obstructed by landscaping or parked vehicles. If the monitoring and metering facility is inside the user's fence, there shall be accommodations to allow access for District personnel, such as a gate secured with a District lock. There shall be ample room in or near such monitoring and metering facility to allow accurate sampling and compositing of samples for analysis. The monitoring and metering facility and sampling and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user. Whether constructed on public or private property, the monitoring and metering facilities shall be provided in accordance with the District requirements and all applicable construction standards and specifications. Construction shall be

completed within ninety days following written notification by the General Manager, unless a time extension is otherwise granted by the General Manager.

#### **7.4.14 Inspection and Sampling**

The District shall inspect the wastewater generating and disposal facilities of any user to ascertain whether the intent of these Rules and Regulations is being met and the user is complying with all requirements. Persons or occupants of premises where wastewater is created or discharged shall allow the District or its representatives ready access during the normal working day to all parts of the wastewater generating and disposal facilities and monitoring and metering facilities for the purposes of inspection and sampling. The District shall have the right to set up on the user's property such devices as are necessary to conduct sampling or metering operations. Where a user has security measures in force, the user shall make necessary arrangements so that personnel from the District will be permitted to enter without delay for the purpose of performing their specific responsibilities.

#### **7.4.15 Discharge Reports**

An industrial user discharging or proposing to discharge sewage into the District's sewage facilities shall be required to file discharge reports periodically or at anytime requested by the District. Industrial users subject to Federal categorical pretreatment standards, shall submit to the District by June 30 and December 31, unless required more frequently by the standard or by the District, a report indicating the nature and concentration of pollutants in the discharge which are limited by such categorical pretreatment standards. Reports generated by OCSD may serve to meet this requirement. In addition, this report shall include a record of flows as required by the District. The District may agree to alter the months during which the reports are to be submitted based on an industrial user's high or low flow rates, holidays, budgets, etc.

Where the District has imposed mass limitations on an industrial user, the report shall indicate the mass of pollutants regulated by the pretreatment standards in the discharge of the industrial user. Where the District has imposed equivalent mass or concentration limits on an industrial user, the report shall contain a reasonable measure of an industrial user's long-term production rate. For all other industrial users subject to categorical pretreatment standards expressed in terms of pollutant discharge per unit of production, the report shall include the industrial user's actual average production rate for the reporting period.

The District may also require an industrial user to include other information in the report including, but not limited to hours of operation, number and classification of employees, and quantities of liquid or gaseous materials stored on site even though they may not be discharged. Industrial users who monitor more frequently than required by permit must report the results of such monitoring.

Industrial users required to submit these reports or to keep other records under the conditions of their permit shall retain for three years all records of monitoring activities including dates, times, exact places, methods, names of persons who sampled and analyzed the discharge, and results of analysis, and shall make such records available for inspection and copying by the

Regional Board, and the District. This period of retention may be extended during the course of any unresolved litigation regarding the User or the District, when requested by the Regional Board.

These reports shall be signed per Section 7.4.20 of the Rules and Regulations.

**7.4.16 Confidential Information.** All information and data on a user obtained from reports, questionnaires, permit applications, permits, monitoring programs, and from inspections shall be available to the public or other governmental agencies without restriction unless the user specifically requests confidentiality and is able to demonstrate to the satisfaction of the General Manager that the release of such information would divulge information, processes or methods which would be detrimental to the user's competitive position. Any such claim must be asserted at the time of submittal of the information by stamping the words "confidential business information" on each page containing such information. If a claim is so asserted, the District will treat the information in accordance with Chapter 40, Code of Federal Regulations, Part 2. When requested by the person furnishing a report or other document, the portions of a report or document which might disclose trade secrets or secret processes shall not be made available to the public, but shall be made available to governmental agencies; and such portions of a report or document shall be subject to use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report or document. Sewage constituents and characteristics will in no instance be recognized as confidential information.

**7.4.17 Toxic Solid Wastes.** Industrial dischargers identified as generators of toxic solid wastes shall be notified by the District of applicable requirements promulgated under the Solid Waste Disposal Act, and the Resource Conservation and Recovery Act (RCRA) and shall be referred to the State of California Department of Health Services. The foregoing provision shall in no way relieve the discharger of full responsibility for ascertaining and complying with all such requirements.

**7.4.18 Hazardous Waste Discharge**

(1) All industrial dischargers are required to file a one-time notification with the District of the discharge of wastes which, if otherwise disposed of, would be considered RCRA hazardous wastes. Industrial dischargers which discharge more than 220 pounds (100 kilograms) of RCRA classified wastes per month must include in the notification an identification of hazardous constituents, estimates of mass and concentration on a monthly basis for twelve consecutive months. Industrial dischargers who discharge less than 33 pounds (15 kilograms) per month of non-acute hazardous waste as defined by RCRA do not have to report under this Section. In addition, industrial dischargers need not report pollutants already addressed under self-monitoring, baseline monitoring, and other periodic compliance reports.

- (2) Industrial dischargers subject to this Section are required to certify that they have developed a program to reduce the volume or toxicity of hazardous wastes generated to the degree it has been determined to be economically practical.

**7.4.19 Baseline Monitoring Reports.** All dischargers may be required to comply with applicable mandatory toxic waste and pretreatment standards promulgated in accordance with Sections 307 and 308 of the Federal Water Pollution Control Act, or amendments thereto. Within 180 days of the date such pretreatment standards are promulgated, or become applicable to the discharger, dischargers subject to the standards shall submit a baseline monitoring report to the District and to the U.S. Environmental Protection Agency detailing, in accordance with Section 403.12, Chapter 40, Code of Federal Regulations, as amended, the discharger's compliance status with the regulations. If the discharger is in non-compliance, the report shall include a time schedule outlining how the discharger will achieve compliance within the date established for the applicable pretreatment standards. Progress reports, monitoring and reports of compliance shall also, as required by Section 403.12, be submitted by the discharger at the specified times.

**7.4.20 Signatory Requirements.** All reports and permit applications required by the District for satisfying Federal Regulations shall contain the following certification statement:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with Federal Pretreatment Requirements.”

This statement shall be signed by a manager and the person responsible for environmental matters of the industrial user as defined in 40 CFR 403.12 (1) (1-4).

## 7.5 CHARGE FOR USE

### 7.5.1 General

The purpose of a charge for use is to insure that each recipient of sewage service from the District pays its reasonably proportionate share of all the costs of providing that sewage service. Charges for use shall be used to recover the total cost of operation and maintenance, including the conveying, treating and disposing of wastewater in the District's sewage facilities, as well as capital expenditures and reserve requirements for providing wastewater collection treatment and disposal. In addition, they will be used to reimburse District for the cost of monitoring and enforcement of these Rules and Regulations. Charges for sewage service use will be the District's non-residential service/quantity/commodity rates as specified in the District's Schedule of Rates and Charges, based on return of metered water to the sewer. Dischargers may, upon request to the District, be permitted to have the amount of water being discharged into the sewer determined by means acceptable to the District. In lieu of the rates specified in the Schedule of Rates and Charges, upon request by the discharger and at the sole discretion of the District, an alternative service charge may be applied pursuant to Section 7.5.2



of these Rules and Regulations. Additional fees will be levied by the District for compatible or non-compatible pollutants in excess of those amounts specified in the user permit.

7.5.2 **Alternative Service Charge.** Dischargers may request the application of an Alternative Service Charge for use. The acceptance of such requests and the formation and continuing application of an Alternative Service Charge shall be at the sole discretion of the District. The Alternative Service Charge shall be based on the quantity and quality of water being discharged to the sewer from the discharger's facility, measured by a means acceptable to the District. The District may revise an Alternative Service Charge, or discontinue the application of an Alternative Service Charge to a discharger and apply the rates specified in the Schedule of Rates and Charges, if the District determines, in its sole discretion, that the Alternative Service Charge does not adequately recover costs in accordance with the purposes described in Section 7.5.1; such action may, but need not, be taken in conjunction with any enforcement remedies under Section 7.6.

(1) **Determination of Flow.** There are three methods for determining the volume of wastewater discharged into the sewer: direct measurement, metered water supply, or adjusted metered water supply. Those users exceeding 10% of the design capacity of any District sewage facility may be required to provide a continuous, automatic total flow measurement system incorporating flow indication, totalization, and recording of the wastewater flow (direct measurement system). Those users not required to have a continuous wastewater flow measurement system shall use metered water supply or adjusted metered water supply measurements to determine flow. The District shall approve the method of wastewater flow measurement to be used in each instance.

- (a) **Direct Measurement.** Direct Measurement reports the volume of industrial wastewater determined by a full time flow meter, measuring the wastewater leaving the plant.
- (b) **Metered Water Supply.** Metered water supply reports the amount of industrial wastewater discharged when the flow volume is a measurement of the total water entering the user's plant. This amount can be taken from water bills or flow measuring device which measures the intake of water from either the District, water wells, or other sources.
- (c) **Adjusted Metered Water Supply.** Adjusted metered water supply reports the amount of industrial wastewater discharged when amounts of water consumed in plant operations are subtracted from the total volume of metered water entering the plant. This results in a calculated rather than a measured flow volume of industrial wastewater leaving the plant. The adjusted metered water supply is determined by deducting measured quantities of water consumed in plant operations from the metered water supply.

**(2) Determination of Biological Oxygen Demand (BOD) and Suspended Solids (SS).**

- (a) The BOD and SS concentrations in the discharged wastewater shall be determined in accordance with the results of analytical tests performed on samples collected by the District and/or discharger and in a manner specified by the District. The frequency of sampling to determine wastewater strength shall be determined by the District.
  - (b) The samples collected shall be in accordance with proper sampling and handling techniques outlined in the latest edition of “Standard Methods for the Examination of Water and Wastewater” (American Public Health Association), and/or 40 CFR 136 “Guidelines Establishing Test Procedures for the Analysis of Pollutants”, promulgated by the EPA or other appropriate methods approved for use by the Regional Board. Samples collected shall be delivered to a California State Certified Laboratory for analysis within the holding period of the sample. The District may require samples to be split for concurrent analyses.
- (3) The Alternative Service Charge for District approved dischargers shall be computed by the following formula:

$$\text{Charge for use} = VR_v + BR_b + SR_s$$

Where **V** = total volume of flow, in hundred cubic feet

**B** = total discharge of biochemical oxygen demand, in pounds

**S** = total discharge of suspended solids, in pounds

**R<sub>v</sub>, R<sub>b</sub>, R<sub>s</sub>** = unit charge rates for volume, BOD, and suspended solids, respectively, adopted and adjusted as needed by the District Board of Directors as shown in Exhibit B, Schedule of Rates and Charges.

Each unit rate shall be based on the amount attributable to the respective component as a proportionate share of the total cost for operations and maintenance, capital expenditures, debt service, and reserve requirements for providing wastewater collection, treatment, and disposal in dollars per unit. Other measurements of the organic content of the wastewater of a discharger, such as COD or TOC may be used instead of BOD when BOD is not applicable. However, the discharger must establish for the District a relationship between the BOD of his wastewater and the other measured parameter to convert the other parameter to an equivalent BOD. This relationship shall be used by the District in determining the Alternative Service Charge for use. When wastewater from typical domestic use facilities is discharged separately from the other wastewaters of a discharger, the charge for use for discharging the domestic wastewater may be determined by using the following:

- (1) 10,000 gallons per employee per year; and,



(2) 20 pounds of suspended solids per employee per year; and,

(3) 20 pounds of BOD per employee per year. (The number of employees will be considered at the average of people employed full time on a daily basis. This may be determined by averaging the number of people employed at the beginning and ending of each quarter, or other period that reflects normal employment fluctuations.)

**7.5.3 Special Purpose Discharge Permit Charge for Use.** A charge for use to cover all costs of the District for providing sewage service and monitoring shall be established by the General Manager. A deposit determined by the General Manager to be sufficient to pay the estimated charges for use shall accompany the Special Purpose Discharge Permit application, and said deposit shall be applied to the charges for use.

#### **7.5.4 Charges for Non-Compliance**

(1) Non-compliance with permit requirements, mass emission rate limits, concentrations, and/or these Rules and Regulations may be determined by an analysis of a grab or composite sample of the discharge of a permittee.

(2) If routine sampling of the discharge of a permittee reveals non-compliance by the permittee with the mass emission rates or other conditions and limitations specified in the permittee's discharge permit, or with any provisions of these Rules and Regulations, then the permittee shall pay fees to the District as specified in Exhibit B, Schedule of Rates and Charges. The purpose of the non-compliance fees is to compensate the District for additional costs of sampling, monitoring, laboratory analysis, treatment, disposal, and administrative processing incurred as a result of the non-compliance, and shall be in addition to and not in lieu of any penalties as may be assessed pursuant to Sections 7.6.2, 7.6.3, and 7.6.4, and charges under Section 7.5.48.

(3) Upon discovery of non-compliance with any pretreatment standard and requirement, the District shall be authorized to immediately proceed with enforcement action against the industrial user as outlined in Section 7.6. The user's status shall remain in violation until all necessary steps have been taken to restore or achieve compliance.

#### **7.5.5 Damage to Facilities or Interruption of Normal Operations**

When a discharge of wastes causes an obstruction, corrosion, interference, damage, or any other impairment to District's operation or facilities, the District may assess a charge to the discharger for the work required to clean or repair the facility or costs incurred to resume normal operations and such discharge shall be grounds for permit revocation. A service fee of 25 percent of District's costs shall be added to these charges and shall be payable within forty-five (45) days of invoicing the District.

- (1) If it can be shown that the discharge is the cause of the District violating its discharge requirements established by any Regulatory Agency or incurring additional expenses or suffering losses or damage to the sewage facilities, then that discharger shall be responsible for any costs or expenses incurred by the District, including regulatory fines, penalties, and assessments made by other agencies or a court.

## 7.6 ENFORCEMENT

### 7.6.1 Duty of Enforcement

- (1) The General Manager is hereby charged with the duty of enforcing this Section. The provisions of this Section shall be applicable to any discharge and any building, structure or property temporarily or permanently connected to the District's sewage facilities, whether the same is owned, operated or controlled by a private party or by a public agency, other than the District, or quasi-public agency, corporation or association.
- (2) The District shall have legal authority to obtain remedies for non-compliance by industrial users with any pretreatment standard and requirement, including the authority to seek injunctive relief. The District shall have authority and procedures (after informal notice to the discharger) to immediately and effectively halt or prevent any discharge of pollutants which may constitute an imminent endangerment to the health or welfare of persons or to the environment, or cause interference with the operation of any treatment plant.
- (3) In addition to such other penalties as may be prescribed for a violation of these Rules and Regulations, whenever the General Manager finds that a discharge of waste has been taking place in violation of any prohibitions or limitations prescribed herein or pretreatment standards promulgated in accordance herewith, he may require the user to submit for his approval best management practice plans (BMPs) wherever necessary to implement the District's pretreatment program (e.g. plans ensuring industrial users conduct necessary routine maintenance, cleaning operations, chemical storage practices, segregation of wastes for reclamation, reduction of contaminated runoff, etc.). Any failure to comply with such BMPs shall likewise be deemed a violation of this article.

7.6.2 **Enforcement Remedies.** The District may, at its discretion, utilize any one, combination, or all enforcement remedies provided in Section 7.6 in response to any violation of a permit or these Rules and Regulations.

### 7.6.3 Probation Order

- (1) In the event that it is determined that a user has discharged in violation of any provision of these Rules and Regulations, or the terms, conditions and limitations of its discharge permit, or has not made payment of all amounts owed to the District for user charges, non-compliance fees, or any other fees,

the General Manager may issue a Probation Order, whereby the user must comply with all directives, conditions, and requirements therein within the time prescribed.

- (2) The Probation Order may contain terms and conditions including, but not limited to, installation of pretreatment equipment and facilities, submittal of drawings or technical reports, payment of fees, limits on rate and time of discharge, or other provisions to ensure compliance with these Rules and Regulations.
- (3) If at any time while a Probation Order is in effect, a user discharges wastewater to the District's sewage facilities which is not in compliance with the Probation Order, the terms, conditions, or the limitations specified in the user's discharge permit, or with any provision of these Rules and Regulations, then the user shall pay fees to the District as specified in Exhibit B, Schedule of Rates and Charges, and the user may be assessed all other costs incurred during the sampling, including labor, equipment, materials, and overhead. The user may also be subject to permit suspension pursuant to Section 7.6.2.4 of these Rules and Regulations.
- (4) A Probation Order issued by the General Manager shall be in effect for a period not to exceed ninety (90) days. Upon satisfactory compliance with the terms of the Probation Order and expiration thereof, any fees to be assessed due to subsequent non-compliance by user shall be in accordance with these Rules and Regulations, re-established at the rate set forth in Exhibit B, Schedule of Rates and Charges. All enforcement actions thereafter shall be based on applicable provisions of these Rules and Regulations.

#### **7.6.4 Enforcement Compliance Schedule Agreement (ECSA)**

- (1) Upon determination that a permittee is in non-compliance with the terms, conditions or limitations specified in its permit or any provision of these Rules and Regulations, and needs to construct and/or acquire and install equipment related to pretreatment, the General Manager may require the permittee to enter into an ECSA, which will, upon the effective date of the ECSA, amend the permittee's permit. The ECSA shall contain the terms and conditions by which a permittee must operate during its term and shall provide specific dates for achieving compliance with each term and condition for construction, acquisition, and installation of required equipment related to pretreatment.
- (2) An ECSA shall have a maximum term of one hundred-eighty (180) days, and upon showing of good cause, including but not limited to reasonable progress under the terms of the ECSA, it may be extended by the General Manager for an additional period not to exceed one hundred-eighty (180) days. No further extensions shall be granted except on approval of the Board of Directors.

(3) The ECSA may contain terms and conditions including but not limited to requirements for self-monitoring, installation of pretreatment equipment and facilities, submittal of drawings or reports, operator certification, audit of waste minimization practices, payment of fees, limits on rate and time of discharge, deposit of performance guarantee, or other provisions to ensure compliance with these Rules and Regulations.

(4) An ECSA shall not be approved by the District until such time as all amounts owed to the District, including fees, charges for use, Section 7.5.38 charges, non-compliance fees, deposits, or civil penalties are paid in full, or an agreement for deferred payment secured by acceptable collateral or a third party, is approved by the District. Failure to pay all amounts owed to the District shall be grounds for permit suspension or permit revocation as set forth in Sections 7.6.62.4 and 7.6.72.5.

(5) If, during the term of an ECSA, sampling reveals non-compliance by the permittee with the terms, conditions or limitations specified in the ECSA, the user's permit, or any provision of these Rules and Regulations, the permittee shall pay the fees as specified in Exhibit B, Schedule of Rates and Charges, and may be assessed all other costs incurred during the sampling, including labor, equipment, materials, and overhead.

(6) If compliance is not achieved in accordance with the terms and conditions of an ECSA during its term, the General Manager may issue an order suspending or revoking the discharge permit pursuant to Sections 7.6.62.4 and 7.6.72.5.

(7) If following the expiration of an ECSA, sampling reveals non-compliance by the permittee with the terms, conditions or limitations specified in the permit, or any provisions of these Rules and Regulations, the permittee shall pay an amount based on the fees set forth in Exhibit B, Schedule of Rates and Charges, for each violation.

(8) If the permittee remains in consistent compliance for a two-year period following ECSA expiration, then the fees shall be re-established in accordance with Exhibit B, Schedule of Rates and Charges. All enforcement actions thereafter shall be based on applicable provisions of these Rules and Regulations.

#### 7.6.5 Regulatory Compliance Schedule Agreement (RCSA)

(1) If at any time subsequent to the issuance of a wastewater discharge permit to an industrial user, Federal Categorical Pretreatment Standards are adopted or revised by the EPA, or in the event the District enacts revised discharge limitations, the General Manager, upon determination that an industrial user would not be in compliance with the future limitations, may require the industrial user to enter into a RCSA with the District under terms and conditions that would provide for achieving compliance with all new standards by the industrial user on

a specific date. The RCSA shall have a maximum term of two hundred-seventy (270) days.

(2) The RCSA may contain terms and conditions including but not limited to requirements for installation of pretreatment equipment and facilities, submittal of drawings or reports, waste minimization practices or other provisions to ensure compliance with these Rules and Regulations.

(3) During the period said RCSA is in effect, any discharge by the permittee in violation of the RCSA will require payment of non-compliance fees as specified in Exhibit B, Schedule of Rates and Charges.

(4) Upon RCSA expiration, and in the event of non-compliance by the permittee, non-compliance fees shall be established in accordance with Exhibit B, Schedule of Rates and Charges. All enforcement actions thereafter shall be based on applicable provisions of these Rules and Regulations.

#### 7.6.6 Permit Suspension

(1) **Conditions for Suspension.** The District may suspend any permit when a permittee:

- (a) Fails to comply with the terms and conditions of either an ECSA or RCSA.
- (b) Knowingly provides a false statement, representation, record, report, or other document to the District.
- (c) Refuses to provide records, reports, plans, or other documents required by the District to determine permit terms, conditions, or limitations, discharge compliance, or compliance with these Rules and Regulations.
- (d) Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or sample collection method.
- (e) Fails to report significant changes in operations or wastewater constituents and characteristics.
- (f) Violates a Probation Order.
- (g) Refuses reasonable access to the permittee's premises for the purpose of inspection and monitoring.
- (h) Does not make timely payment of all amounts owed to the District for user charges, non-compliance fees, penalties, deposits, or any other fees and charges.

- (i) Violates any condition or limitation of its discharge permit or any provision of the District's Rules and Regulations.
- (j) Discharges effluent that causes pass through or interference with the District's collection, treatment, or disposal facilities.
- (k) Fails to submit oral notice or written report of bypass occurrence.

(2) When the General Manager has reason to believe that grounds exist for permit suspension, he shall give written notice thereof by certified mail to the permittee setting forth a statement of the facts and grounds deemed to exist, together with the time and place where the charges shall be heard by a Department Head. The hearing date shall not be less than fifteen (15) calendar days nor more than forty-five (45) calendar days after the mailing of such notice.

- (a) At the suspension hearing, the permittee shall have an opportunity to respond to the allegations set forth in the notice by presenting written or oral evidence. The hearing shall be conducted in accordance with procedures established by the General Manager and approved by the District's General Counsel.
- (b) After the conclusion of the hearing, the Department Head shall submit a written report to the General Manager setting forth a brief statement of facts found to be true, a determination of the issues presented, conclusions, and a recommendation.
- (c) Upon receipt of the written report, the General Manager shall make his determination and should he find that grounds exist for suspension of the permit, he shall issue his decision and order in writing within thirty (30) calendar days after the conclusion of the hearing by the Department Head. The written decision and order of the General Manager shall be sent by certified mail to the permittee or its legal counsel or representative at the permittee's business address.

(3) Upon an order of suspension by the General Manager becoming final, the permittee shall have no right to discharge any industrial wastewater, directly or indirectly to the District's sewage facilities for the duration of the suspension. All costs for physically terminating and reinstating service shall be paid by the permittee. Any owner or responsible management employee of the permittee shall be bound by the order of suspension. An order of permit suspension issued by the General Manager shall be deemed final upon delivery to the permittee, unless appealed to the Board of Directors pursuant to Section 7.6.2.9.

#### 7.6.7 Permit Revocation

(1) **Conditions for Revocation.** The District may revoke any permit when it is determined that the permittee:

- (a) Knowingly provided a false statement, representation, record, report, or other document to the District.
- (b) Refuses to provide records, reports, plans, or other documents required by the District to determine permit terms, conditions, or other limitations, discharge compliance, or compliance with these Rules and Regulations.
- (c) Falsifies, tampers with, or knowingly rendered inaccurate any monitoring device or sample collection method.
- (d) Failed to report significant changes in operations or wastewater constituents and characteristics.
- (e) Failed to comply with the terms and conditions of an ECSA, permit suspension, or probation order.
- (f) Discharged effluent to the District's sewage facilities while its permit is suspended.
- (g) Refused reasonable access to the permittee's premises for the purpose of inspection and monitoring.
- (h) Did not make timely payment of all amounts owed to the District for user charges, non-compliance fees, penalties, deposits, or any other fees and charges.
- (i) Discharged a batch dump to the District's sewage facilities.
- (j) Discharged effluent that causes pass through or interference with the District's collection, treatment, or disposal facilities.
- (k) Failed to submit oral notice or written report of bypass occurrence.
- (l) Violated any condition or limitation of its discharge permit or any provision of the District's Rules and Regulations.

(2) **Notice of Hearing.** When the General Manager has reason to believe that grounds exist for revocation of a permit, he shall give written notice by certified mail thereof to the permittee setting forth a statement of the facts and grounds deemed to exist together with the time and place where the charges shall be heard by a Department Head. The hearing date shall not be less than fifteen (15) calendar days nor more than forty-five (45) calendar days after the mailing of such notice.

(3) **Hearing Procedure.** At the hearing, the permittee shall have an opportunity to respond to the allegations set forth in the notice by presenting written or oral evidence. The revocation hearing shall be conducted in



accordance with the procedures established by the General Manager and approved by the District's general counsel.

(4) **Hearing Report.** After the conclusion of the hearing, the Department Head shall submit a written report to the General Manager setting forth a brief statement of facts found to be true, a determination of the issues presented, conclusions, and a recommendation.

(5) **Manager's Determination.** Upon receipt of the written report, the General Manager shall make his determination and should he find that grounds exist for permanent revocation of the permit, he shall issue his decision and order in writing within thirty (30) calendar days after the conclusion of the hearing by the Department Head. The written decision and order of the General Manager shall be sent by certified mail to the permittee or its legal counsel or representative at the permittee's business address.

In the event that the General Manager determines to not revoke the permit he may order other enforcement actions, including, but not limited to, a temporary suspension of the permit, under terms and conditions that he deems appropriate.

Upon an order of revocation by the General Manager becoming final, the permittee shall permanently lose all rights to discharge any industrial wastewater directly or indirectly to the District's sewage facilities. All costs for physical termination shall be paid by the permittee. Any owner or responsible management employee of the permittee shall be bound by the order of revocation. An order of permit revocation issued by the General Manager shall be deemed final upon delivery to the permittee, unless appealed to the Board of Directors pursuant to Section 7.6.112.9.

Any future application for a permit at a location within the District by any person subject to an order of revocation will be considered by the District after fully reviewing the records of the revoked permit, which records may be the basis for denial of a new permit.

7.6.8 **Emergency Suspension.** The District may, by order of the General Manager without notice or hearing, suspend sewage service when such suspension is necessary, in order to stop an actual or impending discharge which presents or may present an imminent or substantial endangerment to the health and welfare of persons, or to the environment, or may cause interference with the District's sewage facilities, or may cause the violation of any State or Federal Law or Regulation. An emergency suspension order is final and not appealable.

#### 7.6.9 **Civil Penalties**

(1) **Imposition By Court.** Any permittee, discharger or other person who violates any provision of Section 7 of these Rules and Regulations, any permit condition, prohibition or effluent limitation, or any order, compliance schedule, suspension or revocation shall be civilly liable in a sum not to exceed twenty-five thousand dollars (\$25,000) a day for each violation. Pursuant to Sections 54739 and 54740 of the California Government Code, the District, upon order of the



General Manager, shall petition the Superior Court to impose, assess and recover such penalties or such other penalties as the District may impose, assess and recover under Federal or State law.

(2) **Imposition By Administrative Procedure.** Any permittee, discharger, or other person who violates any provision of Section 7 of these Rules and Regulations, any permit condition, prohibition or effluent limitation, or any order, compliance schedule, suspension or revocation shall be civilly liable in the following amounts, as applicable, imposed by the District pursuant to an administrative complaint: a sum not to exceed two thousand dollars (\$2,000) a day for failing or refusing to furnish technical or monitoring reports, a sum not to exceed three thousand dollars (\$3,000) a day for failing or refusing to comply with any compliance schedule, a sum not to exceed five thousand dollars (\$5,000) a day for each violation for discharges in violation of any waste discharge limitation, permit condition or other requirement issued, reissued or adopted by the District, and a sum not to exceed ten dollars (\$10) per gallon for any discharge in violation of any suspension, cease and desist order or other order, or prohibition issued, reissued or adopted by the District.

- (a) The District may proceed under Section 7.6.9(2) by issuing an administrative complaint to any person who violates any provision of Section 7 of these Rules and Regulations, any permit condition, prohibition or effluent limitation, or any order, compliance schedule, suspension or revocation, alleging the act or failure to act that constitutes the violation, the provisions of law authorizing civil liability to be imposed and the proposed civil penalty. The administrative complaint shall be served by personal delivery or certified mail on such person and shall inform the person that a hearing shall be conducted, within 60 days following service, before the General Manager. The person may waive the right to a hearing, in which case it shall not be conducted.
- (b) At the hearing, the person shall have an opportunity to respond to the allegations set forth in the administrative complaint by presenting written or oral evidence. The hearing shall be conducted in accordance with the procedures established by the General Manager and approved by the District's general counsel.
- (c) After the conclusion of the hearing, the General Manager shall make his determination and should he find that grounds exist for imposition of a civil penalty, he shall issue his decision and order in writing within thirty (30) calendar days after the conclusion of the hearing. If not appealed, the order shall be final on the 31st day after it is served on the person.
- (d) A person dissatisfied with the decision of the General Manager may appeal to the Board of Directors within thirty (30) days of notice of the General Manager's decision, in accordance with Section 7.6.11.

- (e) If after the hearing or appeal, if any, it is found that the person has violated reporting or discharge requirements, the General Manager or Board of Directors may assess a civil penalty against that person.
- (f) In the determination of the amount of the civil penalty, all relevant circumstances may be taken into consideration, including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through any non-compliance, the nature and persistence of the violation, the length of time over which the violation occurs and the corrective action, if any, attempted or taken by the person.
- (g) Payment of civil penalties shall be due within thirty (30) days of the date the order assessing the penalties becomes final. The amount of any civil penalties which have remained delinquent for a period of sixty (60) days from the date they are due shall constitute a lien against the real property of the discharger from which the discharge resulting in the imposition of the penalty originated. The lien shall have no force and effect until recorded with the county recorder and when recorded shall have the force and effect and priority of a judgment lien and continue for ten (10) years and be renewable in accordance with law.
- (h) Copies of the order shall be served by personal service or by registered mail upon the party served with the administrative complaint and upon other persons who appeared at the hearing and requested a copy of the order.
- (i) Any party aggrieved by a final order issued by the Board of Directors after granting review of the order of the General Manager may obtain review of the order of the Board of Directors in the superior court, by filing in the court a petition for writ of mandate within thirty (30) days following the service of a copy of the decision and order issued by the Board of Directors.

#### **7.6.10 Appeals To The General Manager**

- (1) Any user, permit applicant, or permittee affected by any decision, action or determination made a Department Head may file a written request for an appeal hearing. The request must be made within fifteen (15) days of mailing of the decision. The request for a hearing shall set forth in detail all facts supporting the appellant's request.
- (2) The General Manager shall, within fifteen (15) days of receiving the request for appeal, provide written notice to the user of the hearing date, time, and place. The hearing date shall not be more than thirty (30) days from the mailing of such notice by certified mail to the appellant unless a later date is agreed to by the appellant. If the hearing is not held within said time due to actions or inactions of the appellant, then the original decision shall be deemed final.

(3) At the hearing, the appellant shall have the opportunity to present information supporting its position concerning the staff's decision, action, or determination. The hearing shall be conducted in accordance with procedures established by the General Manager and approved by the District's general counsel.

(4) After the conclusion of the hearing, the General Manager shall prepare a written report setting forth a brief statement of facts found to be true, a determination of the issues presented, and conclusions. The General Manager shall make his determination whether to uphold, modify, or reverse the decision, action, or determination of the Department Head and shall issue his decision and order within thirty (30) calendar days of the hearing. The written decision and order of the General Manager shall be sent by certified mail to the appellant or its legal counsel or representative at the appellant's business address.

(5) The order of the General Manager shall be final in all respects fifteen (15) days after it is mailed to the appellant unless a request for hearing is filed with the Board of Directors pursuant to Section 7.6.~~112.9~~.

#### 7.6.11 Appeals To The Board Of Directors

(1) If the General Manager's order is adverse to the user, permit applicant, or permittee, it may prior to the date that the General Manager's order becomes final, file a written request for a hearing by the Board of Directors accompanied by an appeal fee in an amount shown in Exhibit B, Schedule of Rates and Charges. The request for hearing shall set forth in detail all the issues in dispute for which the appellant seeks determination and all facts supporting appellant's request.

(2) No later than sixty (60) days after receipt of the request for hearing, the Board of Directors shall either set the matter for hearing, or deny the request for hearing.

(3) The Board of Directors shall grant all requests for a hearing on appeals concerning administrative civil penalties, permit suspension or revocation. Whether to grant or deny the request for a hearing on appeals of other final decisions of the General Manager shall be at the sole discretion of the Board of Directors.

(4) The appeal fee shall be refunded if the Board of Directors denies a hearing or reverses or modifies the order of the General Manager. The fee is not refunded if the Board of Directors denies the appeal.

(5) A hearing shall be held by the Board of Directors within sixty (60) days from the date of determination granting a hearing, unless a later date is agreed to by the permittee and the Board of Directors. If the matter is not heard within the required time, due to actions or inactions of the appellant, the General Manager's order shall be deemed final.

(6) The Board Secretary shall within fifteen (15) days of the Board of Directors determination, provide written notice to the appellant by certified mail of the hearing date, time, and place, or the denial. If the hearing is denied, the General Manager's decision shall be final fifteen (15) days after the date such notice is mailed.

(7) At the hearing, the appellant shall have the opportunity to present written or oral evidence supporting its position concerning the original decision, action, or determination, in accordance with adopted Rules of Procedure of the Board of Directors.

(8) After the hearing, the Board of Directors shall make a determination whether to uphold, modify, or reverse the original decision, action, or determination as ordered by the General Manager.

(9) The decision of the Board of Directors shall be set forth in writing within sixty-five (65) days after the close of the hearing and shall contain a finding of the facts found to be true, the determination of issues presented, and the conclusions. The written decision and order of the Board of Directors shall be sent by certified mail to the appellant or its legal counsel or representative at the appellant's business address.

(10) The order of the Board of Directors shall be final upon its adoption. In the event the Board of Directors fails to reverse or modify the General Manager's order, it shall be deemed affirmed.

- 7.7 COSTS. In addition to the penalties provided herein, the District may recover reasonable attorney's fees, court costs, court reporters' fees and other expenses of litigation by appropriate suit at law against the person found to have violated these rules and regulations, orders of the board or conditions of permits issued hereunder.
- 7.8 OTHER PENALTIES. Any violation of these Rules and Regulations which is also a violation of federal or state laws or regulations is, in addition to any enforcement penalties and proceedings contained in the Rules and Regulations, subject to enforcement penalties and proceedings applicable under such federal or state laws or regulations.
- 7.9 FALSIFYING INFORMATION. Any person who knowingly makes any false statement, representation, record, report, plan or other document filed with the district or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this regulation, shall violate these rules and regulations.
- 7.10 PUBLISHED NOTICE OF NON-COMPLIANCE. The names of industries in significant non-compliance with federal pretreatment standards shall be annually published by the district, in accordance with EPA requirements specified in 40 CFR 403.8(f)(2)(vii), in the largest daily newspaper published in the District service area.
- 7.11 WAIVER OF PROVISIONS. Waivers of federal categorical pretreatment standards and thus the provisions of these rules and regulations are prohibited under any circumstances

other than those authorized under section 403, general pretreatment regulations, of the clean water act.

7.12 CONFLICT. If any portion of this section pertaining to industrial waste discharge is inconsistent or in conflict with any other provisions of the district's rules and regulations as to such discharge, the provisions of this section will take precedence.

### 7.13 FATS, OILS AND GREASE CONTROL

#### 7.13.1 Purpose

(1) The purpose of this regulation is to facilitate the maximum beneficial public use of the District's sewer services and facilities while preventing blockages of the sewer lines resulting from discharges of FOG to the sewer facilities, and to specify appropriate FOG discharge requirements for Food Service Establishments.

(2) This FOG regulation shall use the general definitions set forth in Section 7.2 and the additional definitions set forth in Section 7.113.2. The provisions of this regulation shall apply to the direct or indirect discharge of all wastewater or waste containing FOG carried to the sewer facilities of the District.

(3) To comply with Federal, State, and local policies and to allow the District to meet applicable standards, this regulation shall govern discharges of all wastewater or waste containing FOG carried to the sewer facilities of the District.

(4) This regulation establishes quantity and quality standards on all wastewater and/or waste discharges containing FOG, which may alone or collectively cause or contribute to FOG accumulation in the sewer facilities causing or potentially causing or contributing to the occurrence of SSOs.

(5) For convenience of reference, the District's regulations concerning discharges containing FOG are set forth in this Section 7.113. Notwithstanding compliance with this Section 7.113, discharges of wastewater or waste containing FOG to the sewer facilities shall also be subject to Section 7 generally and all other applicable requirements of these Rules and Regulations.

7.13.2 **Definitions.** The terms hereinafter set forth shall have the following meanings when used herein or in any permits or orders issued pursuant hereto. Terms used in this Section 7.113 and not defined below shall be as defined in Section 7.2.

**BEST MANAGEMENT PRACTICES** means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the introduction of FOG to the sewer facilities.

**CALIFORNIA PLUMBING CODE** means Uniform Plumbing Code, with California State amendments.

CHANGE IN OPERATIONS means any change in the ownership, food types, equipment or operational procedures that have the potential to increase the amount of FOG generated and/or discharged by Food Service Establishments in an amount that alone or collectively causes or creates a potential for SSOs to occur.

EFFECTIVE DATE of this FOG Regulation means December 30, 2004.

ENHANCED MAINTENANCE AREAS means areas in sewer lines that have experienced sanitary sewer overflows or that must be cleaned or maintained frequently to avoid blockages of sewer system.

EMULSIFY means to disperse (as an oil) in an emulsion or to convert two or more immiscible liquids into an emulsion.

FATS, OILS, AND GREASE (“FOG”) means any substance such as a vegetable or animal product that is used in, or is a byproduct of, the cooking, ~~or~~ food preparation or clean-up processes~~process~~, and that turns or may turn viscous or solidifies with a change in temperature or other conditions.

FOG CONTROL PROGRAM means the program required by and developed pursuant to RWQCB Order No. R8-2002-0014, Section (c)(12)(viii); subsequently updated pursuant to Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Water Quality Order No. 2006-0003, Section D.13(vii).

~~FOG CONTROL PROGRAM MANAGER<sup>[FS2]</sup> means the individual designated by the General Manager to administer the FOG Control Program. The FOG Control Program Manager is responsible for all determinations of compliance with the program, including approval of discretionary variances and waivers.~~

FOG WASTEWATER DISCHARGE PERMIT means a permit issued by the District subject to the requirements and conditions established by the District authorizing the permittee or discharger to discharge wastewater into the District’s facilities or into sewer facilities which ultimately discharge into a District facility.

FOOD SERVICE ESTABLISHMENT means ~~a facility defined in California Uniform Retail Food Service Establishments Law (CURFFL), Health and Safety Code Section 113785,~~ and any establishment or commercial entity within the boundaries of the District, operating in a permanently constructed structure such as a room, building, or place, or portion thereof, maintained, used, or operated for the purpose of storing, preparing, serving, or manufacturing, packaging, or otherwise handling food for sale to other entities, or for consumption by the public, its members or employees, and which has any process or device that uses or produces FOG, or grease vapors, steam, fumes, smoke or odors that are required to be removed by a Type I or Type II hood, ~~as defined in CURFFL Section 113785.~~ A limited food preparation establishment is not considered a Food Service Establishment when it is engaged only in reheating, hot holding or assembly of ready to eat food products and as a result, there is no wastewater discharge containing a significant amount of FOG. ~~A limited food preparation establishment does not include any operation that changes the form, flavor, or consistency of food.~~

~~FOOD WASTE DISPOSAL UNIT~~ means any device installed in the plumbing or sewage system for the purpose of grinding, pulping, macerating, or flushing food waste or food preparation by-products for the purpose of disposing -all or portions of it to the sewer system.

~~GENERAL PERMIT CONDITIONS~~ means the FOG Control Program General Permit Conditions.



GENERAL PERMIT CONDITIONS means the FOG Control Program General Permit Conditions.

~~FOOD GRINDER means any device installed in the plumbing or sewage system for the purpose of grinding food waste or food preparation by products for the purpose of disposing it in the sewer system.~~

GREASE CONTROL DEVICE means any grease interceptor, grease trap or other mechanism, device, or process, which attaches to, or is applied to, wastewater plumbing fixtures and lines, the purpose of which is to trap or collect or treat FOG prior to it being discharged into the sewer system. "Grease control device" may also include any other proven method to reduce FOG subject to the approval of the District.

GREASE INTERCEPTOR or INTERCEPTOR means a multi-compartment grease control device that is constructed in different sizes and is generally required to be located outdoors, according to the California Plumbing Code, underground between a Food Service Establishment and the connection to the sewer system. These devices primarily use gravity to separate FOG from the wastewater as it moves from one compartment to the next. These devices must be cleaned, maintained, and have the FOG removed and disposed of in a proper manner on regular intervals to be effective. Referred to in the California Plumbing Ceode as a Gravity Grease Interceptor or (GGI).

GREASE TRAP means ~~an alternative~~ grease control device that is used to serve individual or multiple fixtures and ~~have limited effect and should~~shall only be used in those cases where the use of a grease interceptor or other grease control device is determined by the District to be impossible or impracticable or infeasible. Referred to in the California Plumbing Ceode as a Hhydro-mechanical Grease Interceptor or (HGI).

~~HOT SPOTS means Areas in sewer lines that have experienced sanitary sewer overflows or that must be cleaned or maintained frequently to avoid blockages of sewer system.~~

NEW CONSTRUCTION means any structure planned or under construction for which a sewer connection permit has not been issued.

PRIVATE LATERAL SEWER DISCHARGE ("PLSD)" means any uncontrolled discharge or overflow of untreated or partially treated wastewater from a privately owned sewer system or lateral connected to the District's sanitary sewer system.

REMODELING means a physical change or operational change ~~causing~~resulting in the generation of ~~the amount of FOG that exceed~~in excess of the current amount of FOG discharge to the sewer system by the Food Service Establishment in an amount that alone or collectively causes or create a potential for SSOs to occur; or exceeding a cost, set forth in the FOG Control Program, to a Food Service Establishment that requires a building permit, and involves any one or combination of the following: (1) Under slab plumbing in the food processing area, (2) an increase in the net public seating area meeting the criteria specified in the FOG Control Program, (3) an increase in the size of the kitchen area meeting the criteria specified in the FOG Control Program, or (4) any change in the size or type of food preparation equipment.

SANITARY SEWER OVERFLOW ("SSO)" means sewer system overflow, any, overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from the public



sanitary sewer collection system.

### 7.13.3 FOG Discharge Limitations, Prohibitions and Requirements – General

(1) **FOG Discharge Prohibition.** No Food Service establishment shall discharge or cause to be discharged into the sewer system FOG that exceeds a concentration level adopted by the Board or that may accumulate and/or cause or contribute to blockages in the sewer system or at the sewer system lateral which connects the Food Service Establishment to the sewer system.

(2) Food Service Establishment Prohibitions. The following prohibitions shall apply to all Food Service Establishments:

- (a) Installation of food ~~grinders-waste disposal units~~ in the plumbing system of new constructions of Food Service Establishments is prohibited. Furthermore, all food ~~grinders-waste disposal units~~ shall be removed from all existing Food Service Establishments within 180 days of the effective date of this FOG regulation, except when expressly allowed by the ~~FOG Control Program-ManagerDistrict~~.
- (b) Introduction of any additives into a Food Service Establishment's wastewater system for the purpose of emulsifying FOG is prohibited, unless a specific written authorization from the ~~FOG Control Program ManagerDistrict~~ is obtained.
- (c) Disposal of waste cooking oil into drainage pipes is prohibited. All waste cooking oils shall be collected and stored properly in receptacles such as barrels or drums for recycling or other acceptable methods of disposal.
- (d) Discharge of wastewater from dishwashers to any grease trap or grease interceptor except as permitted in the FOG Control Program, is prohibited.
- (e) Discharge of wastewater with temperatures in excess of 140°F to any grease control device, including grease traps and grease interceptors, except as permitted in the FOG Control Program, is prohibited.
- (f) The use of chemical or biological additives for grease remediation or as a supplement to interceptor maintenance, without prior authorization from the ~~FOG Control Program ManagerDistrict~~, is prohibited.
- (g) Discharge of wastes from toilets, urinals, and other fixtures containing fecal materials to sewer lines intended for grease interceptor service, or vice versa, is prohibited.
- (h) Discharge of any waste including FOG and solid materials removed from the grease control device to the sewer system is prohibited. Grease removed from grease interceptors shall be periodically waste-hauled pursuant to local, and state waste hauling regulations~~waste-hauled periodically~~ as part of the operation and maintenance requirements for grease interceptors.
- (i) Increasing the use of water or in any other manner attempting to dilute a discharge as a partial or complete substitute for treatment to achieve compliance with this Section 7.143 and the FOG Wastewater Discharge Permit is prohibited.

(j) Any other prohibited practice identified in the FOG Control Program from time to time, is prohibited.

(3) **FOG Wastewater Discharge Permit Required.** No person shall discharge, or cause to be discharged any wastewater from a Food Service Establishment directly or indirectly into the sewer system without first obtaining a FOG Wastewater Discharge Permit if required by the District pursuant to Section ~~7.113.6~~ 7.113.6.

(4) **Best Management Practices Required.** Food Services Establishments shall implement Best Management Practices in their operation to minimize the discharge of FOG to the sewer system. Detailed requirements for Best Management Practices shall be specified in the permit. This may include kitchen practices and employee training that is essential in minimizing FOG discharge.

7.13.4 **FOG Pretreatment.** Food Service Establishments are required to install, operate and maintain approved type and adequately sized grease interceptors necessary to maintain compliance with the objectives of this Section 7.113. Grease interceptors shall be adequate to separate and remove FOG contained in wastewater discharges from Food Service Establishments prior to discharge to the sewer system. Fixtures, equipment, and drain lines located in the food preparation and clean up areas of Food Service Establishments that are sources of FOG discharges shall be connected to the grease interceptor. Compliance shall be established as follows:

(1) **New Construction of Food Service Establishments.** New construction of Food Service Establishments after the effective date of this FOG regulation shall include and install grease interceptors prior to commencing discharges of wastewater to the sewer system.

(2) **Existing Food Service Establishments**

(a) For Food Service Establishments existing on the effective date of this FOG regulation, the requirement to install and to properly operate and maintain a grease interceptor may be conditionally ~~stayed~~waived, that is, delayed in its implementation by the ~~FOG Control Program Manager~~District ~~for a maximum period of three years from the effective date of this FOG regulation (3-year Amortization Period)~~(~~113.1~~). Terms and conditions for application of ~~such a waiver a stay~~ to a Food Service Establishment shall be set forth in the permit. ~~The Board finds that three years is a reasonable amortization period for existing Food Service Establishments that are operating without a grease interceptor.~~

~~(b)~~ Existing Food Service Establishments that have reasonable potential to adversely impact the sewer system or have sewer laterals connected to ~~hot spots~~enhanced maintenance areas, as determined by the ~~FOG Control~~District, shall install grease interceptors.

(b)

~~Program Manager, shall install grease interceptors within 180 days of the effective date of this FOG regulation.~~

- (c) Existing Food Service Establishments undergoing remodeling or a change in operations, or Food Service Establishments that change ownership, shall be required to install a grease interceptor.

(3) **Variance from Grease Interceptor Requirements.** A variance from the grease interceptor requirements to allow alternative pretreatment technology, that is at least equally effective in controlling the FOG discharge, in lieu of a grease interceptor may be granted to Food Service Establishments demonstrating that it is ~~impossible or~~ impracticable or infeasible to install, operate or maintain a grease interceptor. The applicant shall bear the burden of demonstrating that the alternative method of disposal is at least equally effective. The ~~FOG Control Program Manager's~~ District's determination to grant a variance will be based upon, but not limited to, evaluation of the following conditions:

- (a) There is no adequate space for installation and/or maintenance of a grease interceptor.
- (b) There is no adequate slope for gravity flow between kitchen plumbing fixtures and the grease interceptor and/or between the grease interceptor and the private collection lines or the public sewer.
- (c) The Food Service Establishment can justify that the alternative pretreatment technology is equivalent to or better than a grease interceptor in controlling its FOG discharge. In addition, the Food Service Establishment must be able to demonstrate, after installation of the proposed alternative pretreatment, its effectiveness to control FOG discharge through downstream visual monitoring of the sewer system, for at least ~~three-six~~ months, at its own expense. A variance may be granted if the results show no visible accumulation of FOG in its lateral and/or tributary downstream sewer lines.

(4) **Conditional Waiver from Installation of Grease Interceptor.** A conditional waiver from installation of a grease interceptor may be granted for Food Service Establishments that have been determined to have negligible FOG discharge and insignificant impact to the sewer system. The ~~FOG Control Program Manager's~~ District's ~~Manager's~~ determination to grant or revoke a conditional waiver shall be based upon, but not limited to, evaluation of the following conditions:

- (a) Quantity of FOG discharge as measured or as indicated by the size of Food Service Establishment based on seating capacity, number of meals served, menu, water usage, amount of on-site

consumption of prepared food and other conditions that may reasonably be shown to contribute to FOG discharges.

- (b) Adequacy of implementation of Best Management Practices and compliance history.
- (c) Sewer size, grade, condition based on visual information, FOG deposition in the sewer by the Food Service Establishment, and history of maintenance and sewage spills in the receiving sewer system.
- (d) Changes in operations that significantly affect FOG discharge.
- (e) Any other condition deemed reasonably related to the generation of FOG discharges by the ~~FOG Control Program Manager~~District.

~~(5)~~ — ~~Reserved.~~

~~(6)~~(5) **Application for Waiver or Variance of Requirement for Grease Interceptor.** A Food Service Establishment may submit an application for waiver or variance from the grease interceptor requirement to the ~~FOG Control Program Manager~~District Manager. The Food Service Establishment bears the burden of demonstrating, to the ~~FOG Control Program Manager~~District's Manager's reasonable satisfaction, that the installation of a grease interceptor is not feasible or applicable. Upon determination by the ~~FOG Control Program Manager~~District that reasons are sufficient to justify a variance or waiver, the permit will be issued or revised to include the variance or waiver and relieve the Food Service Establishment from the requirement. Terms and conditions for issuance of a variance to a Food Service Establishment shall be set forth in the permit. A waiver or variance may be revoked at any time when any of the terms and conditions for its issuance is not satisfied or if the conditions upon which the waiver was based change so that the justification for the waiver no longer exists.

~~(7)~~(6) **Grease Interceptor Serving Multiple Food Service Establishments on a Single Parcel.** Property owners of commercial properties or their official designee(s) shall be responsible for the installation and maintenance of the grease interceptor serving multiple Food Service Establishments that are located on a single parcel.

#### 7.13.5 Sewer System Overflows, ~~Private Lateral Sewer Discharges,~~ Public Nuisance, Abatement Orders and Cleanup ~~Costs~~<sup>[FS4]</sup>

(1) Food Service Establishments found to have caused or contributed to a SSOs, PLSDs, or any sewer system interference resulting from the discharge of wastewater or waste containing FOG, may be ordered to install and maintain a grease control device, and may be subject to a plan to abate the nuisance and prevent any future health hazards created by sewer line failures and blockages, SSOs, PLSDs, or any other sewer system interferences. SSOs or PLSDs may

cause or threaten to cause injury to public health, safety, and welfare of life and property and are hereby declared public nuisances. Furthermore, sewer lateral failures, SSOs, and PLSDs caused by Food Service Establishments alone or collectively, are the responsibility of the private property owner or Food Service Establishment, and individual(s) as a responsible officer or owner of the Food Service Establishment.

~~(8) — Notwithstanding the three-year amortization period established in Section 7.11.4.2, Food Service Establishments found to have contributed to a sewer blockage, SSOs or any sewer system interferences resulting from the discharge of wastewater or waste containing FOG, shall be ordered to install and maintain a~~

~~grease interceptor, and may be subject to a plan to abate the nuisance and prevent any future health hazards created by sewer line failures and blockages, SSOs or any other sewer system interferences. SSOs may cause or threaten to cause injury to public health, safety, and welfare of life and property and are hereby declared public nuisances. Furthermore, sewer lateral failures and SSOs caused by Food Service Establishments alone or collectively, are the responsibility of the private property owner or Food Service Establishment, and individual(s) as a responsible officer or owner of the Food Service Establishment.~~

~~(2) FOG related PLSDs, ~~sewer blockages~~Sewer blockage, SSOs, obstruction, interference, damage, or any other impairment to the District's sewer facilities or to the operation of those facilities, and any discharge of a waste which causes or contributes to the District's violating its discharge requirements established by any Regulatory Agency, ~~or~~ incurring additional ~~staff operational-District~~ expenses, or suffering losses or damage to the facilities, shall be subject to cost recovery by the District, ~~shall be subject to Section 7.5.8.~~~~

~~(9)~~

### ~~7.13.57.13.6~~ **FOG Wastewater Discharge Permits for Food Service Establishments**

#### **(1) FOG Wastewater Discharge Permit Required**

- (a) If required by the District under criteria established in the FOG Control Program, Food Service Establishments proposing to discharge or currently discharging wastewater containing FOG into the District's sewer system shall obtain a FOG Wastewater Discharge Permit from the District. This requirement shall be effective 180 days from the effective date of this FOG regulation.
- (b) FOG Wastewater Discharge Permits shall be expressly subject to all provisions of this Section ~~7.44-13~~ and all other regulations, charges for use, and fees established by the District. The conditions of FOG Wastewater Discharge Permits shall be enforced by the District in accordance with this Section ~~7.44-13~~ and applicable State and Federal Regulations.
- (c) If applicable, Class I and Class II dischargers may have requirements established under Section ~~7.44-13.6~~ incorporated in their permits, in which event the Class I or Class II Permit shall ~~take precedence and~~ also serve as ~~a FOG~~the required FOG Wastewater Discharge ~~Permit~~control mechanism~~mechanism~~.

#### **(2) FOG Wastewater Discharge Permit Application**

- (a) Any person required to obtain a FOG Wastewater Discharge Permit shall complete and file with the District prior to commencing discharges, an application on a form prescribed by the District. Applicants for FOG Wastewater Discharge Permits

shall complete an application form available at the District's office.



The District's FOG Control Program General Permit Conditions shall be obtained from the District office or on the District's website ~~at~~, and reviewed by the Applicant prior to the submittal of plans. The applicable FOG ~~plan Wastewater Discharge Permit submittal check Permit~~ fees as set forth in Exhibit B, ~~of the District's~~ Schedule of Rates and Charges, shall accompany the application. The General Permit Conditions must also be met.

- (b) The applicant shall submit two (2) copies of all drawings for review. All drawings shall include, but not be limited to the following:
  - (1) North arrow.
  - (2) Scale size.
  - (3) User name and address.
  - (4) Drawing name and drawing number.
  - (5) Date drawn or revised.
  - (6) Name of drafter and person approving drawing.
  
- (c) Applicant will be required to submit site plans, floor plans, kitchen plans, mechanical and plumbing plans, and details to show all sewer locations and connections, FOG control device, grease interceptor or other pretreatment equipment and appurtenances by size, location, and elevation for evaluation. Applicant may be required to submit a schematic drawing of the grease control device, grease interceptor or other pretreatment equipment, piping and instrumentation diagram, and wastewater characterization report. District review of plan submittals will include, among other requirements, the prohibitions specified in Section ~~7.413.3(-2)~~ and the requirements specified in Section ~~7.413.6(-8)~~ and Section ~~7.413.6(-9)~~. The review of the plans and procedures shall in no way relieve Applicant of the responsibility of modifying the facilities or procedures in the future, as necessary to produce an acceptable discharge, and to meet the requirements of this Section ~~7.413~~ or any requirements of other Regulatory Agencies.

(3) **FOG Wastewater Discharge Permit.** A FOG Wastewater Discharge Permit may contain any of the following conditions or limits:

- (a) Limits on discharge of FOG and other priority pollutants.
- (b) Requirements for proper operation and maintenance of grease interceptors and other grease control devices.
- (c) Grease interceptor maintenance frequency and schedule.
- (d) Requirements for implementation of best management practices and installation of adequate grease interceptor and/or grease control device.

- (e) Requirements for maintaining and reporting status of best management practices.
- (f) Requirements for maintaining and submitting logs and records, including ~~waste hauling~~wastehauling records and waste manifests.
- (g) Requirements to self-monitor.
- (h) Requirements for the permittee to construct, operate and maintain, at its own expense, FOG control device and sampling facilities.
- (i) Additional requirements as otherwise determined to be reasonably appropriate by the ~~FOG Control Program Manager~~District to protect the District's ~~system~~system or as specified by other Regulatory Agencies.
- (j) Other terms and conditions, which may be reasonably applicable to ensure compliance with this Section 7.4.13.

**(4) FOG Wastewater Discharge Permit Fee.** The initial FOG Wastewater Discharge Permit fee shall be paid by the applicant in the amount set forth in Exhibit B, Schedule of Rates and Charges. Payment of permit fees must be received by the District prior to plan approval and issuance of ~~either~~ a new permit. -All ongoing FOG permit and program fees shall be assessed through the monthly sewer service charges associated with the Food Service Establishment or property owner. collected using the associated monthly sewer account of the food service establishment.

**(5) Permit Transferability, Duration; Modification of Terms and Conditions.** ~~FOG Wastewater Discharge Permits do not expire. [JK5][FS6]~~ Permits are issued to a specific operation. They shall not be reassigned, transferred, or sold to a new owner, lessee, new user, different premises, or a new or changed operation. Permits do not expire. However, in the event that there is a change in name, operation, ownership, or control of the food service establishment or the grease control device operation itself, the owner/operator shall notify the District within 90 days of the change. The District may require the new owner or operator to submit a new permit application

~~(4)~~**(6)** The Permittee may request a modification to the terms and conditions of an issued permit. The request shall be in writing stating the requested change, and the reasons for the change. The District shall review the request, make a determination on the request, and respond in writing. Permit modifications are subject to the requirements set forth in Section 7.13. or a renewed permit. A permittee shall also pay any delinquent invoices for sewer, service, fines or penalties in full prior to permit renewal.

~~(5) — Duration; Modification of Terms and Conditions; Renewal~~

~~(a) — The duration of permits shall be in accordance with Section 7.4.4. The~~

~~terms and conditions of an issued permit are subject to modification and change during the life of the permit in accordance with Section 7.4.4, as limitations or requirements are modified and changed, or based on determination by the FOG Control Program Manager that such modification is appropriate to further the objectives of this Section 7.11.~~

~~(b) — Permits are subject to the requirements concerning renewal and modification set forth in Section 7.4.6. The Permittee may request a modification to the terms and conditions of an issued permit. The request shall be in writing stating the requested change, and the reasons for the change. The FOG Control Program Manager shall review the request, make a determination on the request, and respond in writing.~~

~~(6)(7) **Exemption for Limited Food Preparation Establishments.** A limited food preparation establishment ~~(as defined in the definition of Food Service Establishment), (as determined by the District)~~ is not considered a Food Service Establishment and is exempt from obtaining a FOG Wastewater Discharge Permit.~~

~~(7) **Non-Transferability of Permits.** FOG Wastewater Discharge Permits are restricted as to transferability, in accordance with Section 7.4.5.~~

**(8) Pretreatment - Grease Interceptor Requirements**

- (a) ~~In accordance with Section 7.4.7 and 7.4.8, a~~All Food Service Establishments shall provide wastewater acceptable to the District, under the requirements and standards ~~of established Exhibit C, the District's Maximum Allowable Local Limits, and those established herein, before discharging it to any public sewer.~~ Any Food Service Establishment required to pretreat shall install, operate, and maintain an approved type and adequately sized grease interceptor necessary to maintain compliance with the wastewater objectives prior to discharging waste to any public sewer. of this Section 7.11.
- (b) Grease interceptor sizing and installation shall conform to the current edition of the California Uniform Plumbing Code. Grease interceptors shall be constructed and located in accordance with the requirements and criteria set forth in the FOG Control Program.
- (c) Grease Interceptors shall be maintained in efficient operating condition in accordance with the practices, requirements and restrictions set forth in the FOG Control Program and with a maintenance frequency approved by the ~~FOG Control Program Manager District~~ pursuant to said Program.
- (d) Food Service Establishments with grease interceptors may be required to submit data and information necessary to establish the maintenance frequency grease interceptors.

**(9) Grease Trap Requirements**

- (a) ~~When a Variance is granted pursuant to section 7.13.4 (3),~~ Food Service Establishments may be required to install grease traps in the waste line leading from drains, sink, and other fixtures or equipment where grease may be introduced into the sewer system in quantities that can cause blockage.
- (b) Sizing and installation of grease traps shall conform to the current edition of the California Plumbing Code and with applicable requirements and criteria set forth in the FOG Control Program.
- (c) Grease traps shall be maintained in efficient operating condition in accordance with the practices, requirements and restrictions set forth in the FOG Control Program and with a maintenance frequency approved by the ~~FOG Control Program Manager Manage District Manager~~ pursuant to said Program.

(10) **Monitoring Facilities Requirements.** To ensure proper operation and maintenance of the grease control device or grease interceptor and compliance

with ~~the this Section 7.11~~FOG Control Program, in accordance with Section 7.4.13, the District may require the Food Service Establishments to construct and maintain in proper operating condition at the Food Service Establishment's sole expense, flow monitoring, constituent monitoring and/or sampling facilities, and to submit waste analysis plans, contingency plans, and meet other necessary requirements.

(11) **Best Management Practices.** All Food Service Establishments shall implement best management practices in accordance with the requirements and guidelines established by the District and set forth in its FOG Control Program in an effort to minimize the discharge of FOG to the sewer system

### ~~7.13.67.13.7~~ Monitoring, Reporting, Inspection and Sampling

(1) Monitoring for Compliance with Permit Conditions and Reporting Requirements

- (a) The ~~FOG Control Program Manager~~District may require periodic reporting of the status of implementation of Best Management Practices, in accordance with the FOG Control Program.
- (b) The ~~FOG Control Program Manager~~District may require visual monitoring at the sole expense of the Permittee to observe the actual conditions of the Food Service Establishment's sewer lateral and sewer lines downstream.
- (c) The ~~FOG Control Program Manager~~District may require reports for ~~self-monitoring~~self-monitoring of wastewater constituents and FOG characteristics of the Permittee needed for determining compliance with any conditions or requirements as specified in the FOG Wastewater Discharge Permit or this Section 7.143. Monitoring reports of the analyses of wastewater constituents and FOG characteristics shall be in a manner and form approved by the ~~FOG Control Program Manager~~District and shall be submitted upon request ~~of the FOG Control Program Manager~~. Failure by the Permittee to perform any required monitoring, or to submit monitoring reports required by the ~~FOG Control Program Manager~~District shall constitute a violation of this Section 7.1113 and be cause for the District to initiate all necessary tasks and analyses to determine the wastewater constituents and FOG characteristics for compliance with any conditions and requirements specified in the FOG Wastewater Discharge Permit ~~or in this Section 7.11, this Section 7.11~~the requirements and standards of Exhibit C, the District's Maximum Allowable Local Limits, or those established herein.~~this Section 7.11~~. The Permittee shall be responsible for any and all expenses of the District in undertaking such monitoring analyses and preparation of reports.

- (d) Other reports may be required such as compliance schedule progress reports, FOG control monitoring reports, and any other

reports deemed reasonably appropriate by the ~~FOG Control Program Manager~~District to ensure compliance with this Section 7.113.

**(2) Record Keeping Requirements**

(a) The Permittee shall be required to keep all manifests, receipts and invoices of all cleaning, maintenance, grease removal of/from the grease control device, disposal carrier and disposal site location for not less than two years. The Permittee shall, upon request, make the manifests, receipts and invoices available to any District representative, or inspector. These records may include:

(1) A logbook of grease interceptor, grease trap or grease control device cleaning and maintenance practices. The logbook must be available during any inspection by a District representative or inspector. Failure to locate the logbook during an inspection, whether misplaced or lost, will result in the issuance of a replacement logbook by the District and require the Permittee to pay the logbook replacement fee in the amount set forth in Exhibit B, Schedule of Rates and Charges, for each violation. The replacement fee will be billed to the Permittee at the time of the replacement.

(2) A record of Best Management Practices being implemented including employee training.

(3) Copies of records and manifests of ~~all wastehaulingwaste-~~hauling ofwastehauling interceptor contents.

(4) Records of sampling data and sludge height monitoring for FOG and solids accumulation in the grease interceptors.

(5) Any other information deemed appropriate by the ~~FOG Control Program Manager~~District to ensure compliance with this Section 7.113.

(3) **Falsifying Information or Tampering with Process.** It shall be unlawful to make any false statement, representation, record, report, plan or other document that is filed with the District, or to tamper with or knowingly render inoperable any grease control device, monitoring device or method or access point required under this Section 7.113.

**(4) Inspection and Sampling**

(a) The wastewater discharges of Food Service Establishments are subject to inspection and sampling in accordance with the requirements of Section ~~7.4.14.13.7~~ to ascertain whether the intent of this Section ~~7.11-13~~ is being met and the Permittee is complying with



all requirements. District access to the Food Service Establishment premises and records for such purposes shall include grease control devices or interceptor, and manifests, receipts and invoices relating to the cleaning, maintenance and inspection of the grease control devices or interceptor.

- (b) In order for the ~~FOG Control Program Manager~~District to determine the wastewater characteristics of the discharger for purposes of determining ~~the annual use charge and for~~ compliance with permit requirements, the Permittee shall make available for inspection and copying by the District all notices, monitoring reports, waste manifests, and records including, but not limited to, those related to wastewater generation and wastewater disposal, without restriction but subject to the confidentiality provision set forth in this Section ~~7.413~~. All such records shall be subject to inspection and shall be kept by the Permittee in accordance with Section ~~7.413.7(2)-15~~.

**(5) Notification of Spill**

- (a) In the event a discharger is unable to comply with any permit condition due to a breakdown of equipment, accidents, or human error or the discharger has reasonable opportunity to know that his/her/its discharge will exceed the discharge provisions of the FOG Wastewater Discharge Permit or this Section ~~7.413~~, the discharger shall immediately notify the District by telephone at the number specified in the Permit. If the material discharged to the sewer has the potential to cause or result in sewer blockages, PLSDs, -or SSOs, the discharger shall immediately notify the local Health Department, City or County, and the District.

- (b) Confirmation of this notification shall be made in writing to the ~~FOG Control Program Manager~~District at the address specified in the Permit no later than five (5) working days from the date of the incident. The written notification shall state the date of the incident, the reasons for the discharge or spill, what steps were taken to immediately correct the problem, and what steps are being taken to prevent the problem from recurring.

~~(c)~~—Such notification shall not relieve the Permittee of any expense, loss, damage or other liability which may be incurred as a result of damage or loss to the District or any other damage or loss to person or property; nor shall such notification relieve the Permittee of any fees or other liability which may be imposed by the FOG Control Program, -this Section ~~7.113~~ or other applicable law.

~~7.13.77.13.8~~ **Enforcement**<sup>[FS7]</sup>. Enforcement of the provisions of this Section ~~7.11-13~~ and the provisions of any FOG Wastewater Discharge Permit shall be governed by Section ~~7-7.613~~, and for such purpose the District may utilize any one, combination or all enforcement remedies provided in Section ~~7.6-136~~ <sup>[JK8][FS9]</sup> to the extent determined by the District to be applicable to a violation under this Section 7.113. ~~For this purpose, “Department Head” as used in Section 7.6 means the FOG Control Program ManagerRegulatory Compliance Manager. In addition to the non-compliance fees specified under Section 7.6, T~~ the Permittee shall be subject to all FOG Control Program non-compliance, and cost recovery fees fees- for FOG Program as non-compliance as specified in Exhibit B, Schedule of Rates and Charges.

~~7.13.87.13.9~~ **California Building Standards Law.** Pursuant to the provisions of the California Building Standards Law, California Health and Safety Code §§ 18941.5, 17958, 17958.5 and 17958.7, the Board hereby finds that variations of this Section ~~7.11-13~~ from the State Building Standards and Housing Laws, more particularly the California Plumbing Code are necessary because of climatic, geological or topographical conditions of property in the District’s jurisdiction, and as more specifically described below:

- (1) Sections ~~7.113.4~~ and ~~7.113.6~~ modify the authority and discretion of the “Administrative Authority” of ~~Chapter 10 Section 1014.1 of the 2001~~ California Plumbing Code by requiring all Food Service Establishments to install and operate a grease control device, which may be a grease interceptor or grease trap, if no other device, mechanism, or process is found to successfully trap or collect or treat FOG prior to its being discharged into the sewer system.
- (2) Section ~~7.113.6~~ modifies the general maintenance requirements for grease interceptors of ~~Section 1014.6 of the 2001~~ Chapter 10 of the California Plumbing Code and establishes more stringent maintenance requirements.
- (3) With respect to the foregoing differences (1) and (2), the District finds that the District’s topography and geography and the District’s proximity to the Pacific Ocean coupled with the general waste discharge requirements imposed by the RWQCB-Statewide General WDR for Sanitary Sewer Systems, require the strict compliance with grease control device regulations to prevent sewer system overflows that threaten the health and safety of the public within the immediate vicinity of the overflow and downstream to the local beaches.
- (4) Additional amendments and deletions to the California Plumbing Code are found to be administrative or procedural and are found to be reasonable and necessary to safeguard life and property within the District.
- (5) A copy of this Section ~~7.11-13~~ shall be filed with the California Building Standards Commission and the California Department of Housing and Community Development by the Secretary of the Board as required by State law (Health & Safety Code Section 17958.7).

## SECTION 8: MONITORING AND INSPECTION

### 8.1 WATER AND SEWER SYSTEMS

The Manager or his authorized representative shall have the right to enter upon the customer's premises during reasonable hours for the purpose of inspecting the customer's water and sewer systems and to insure compliance with these Rules and Regulations including the provision that self-regenerating water softeners shall not be connected to the sewer facilities of the District and the provision that all cross-connections be properly protected.

### 8.2 RECYCLED WATER SYSTEMS<sup>[M10][M11][M12][M13][M14][M15]</sup>

8.2.1 Monitoring Program. The District is required by the California Regional Water Quality Control Board to conduct visual inspections at all recycled water use sites. The District is also required to conduct cross-connection tests at various recycled water use sites. The Manager or authorized representatives of the District shall monitor and inspect the entire recycled water system including both onsite and offsite facilities. The District shall conduct monitoring programs, maintain ~~a record~~ records as deemed necessary, and provide reports as requested by regulatory agencies including the California Regional Water Quality Control Board.

8.2.2 Entry. The Manager or authorized representatives of the District, in carrying out these functions, shall have the right to enter upon the customer's premises during reasonable hours for the purpose of inspecting onsite recycled water ~~facilities~~ systems and areas of recycled water use ~~and~~ to ensure compliance with these Rules and Regulations, including the ~~provision~~ requirement that runoff be controlled and limited, and the ~~provision~~ requirement that cross-connections between potable water ~~facilities~~ systems and recycled water ~~facilities~~ systems do not exist. Failure to allow timely entry to a District representative may result in termination of recycled water service.

~~For sites receiving~~ 8.2.3 Inspections and Testing. Every recycled water, customer must provide the permit holder shall be responsible for providing District with access to the site and cooperation must cooperate with the District's Inspector or designee representative so that the District's Inspector or designee representative can perform a periodic visual inspection of the onsite recycled water system and/or a cross-connection test, site evaluations and. Whenever the customer changes, the District's representative may perform an inspection and/or test to verify compliance with these Rules and Regulations. For additional information on Inspection and Maintenance of Protective Devices, Marking Safe and Unsafe Water Lines, Reporting of Pollution and Contamination and Water Service Termination, see Sections 4.10.4-4.10.7 of the Rules and Regulations.

(A) Visual inspection means an inspection of the visible portions of the on-site water systems to check for: the presence of the proper backflow prevention device-test(s), accurate and adequate system identification (e.g., tags, purple pipe, signage, etc.), the proper use of non-potable water (including recycled water), the absence of runoff or ponding of non-potable water (including recycled water), and the presence or absence of appurtenances.

- (B) Cross-connection test means the physical operation of the water systems to detect a possible inter-connection between a potable water system and a non-potable water system (including a recycled water system). This evaluation typically includes closing valves on each system independently as well as operating the fixtures. Consistent with Section 60316 of Title 22 of the California Code of Regulations, a Cross-connection test at a dual-plumbed site (as defined in Section 60301.250 of Title 22) can only be administered by an American Water Works Association (California-Nevada section) certified Cross-Connection Control Specialist or equal.
- (C) The cross-connection test shall include pressure testing of the system(s) as well as a visual check of the entire system to verify that no cross-connections or unapproved uses exist. The permit holder/customer or their designee will be required to operate the various systems during the test.

8.2.4 On-Site Recycled Water Supervisor Training. At least one individual at each recycled water use site, who will be known as the “On-Site Recycled Water Supervisor” or “Supervisor,” must have sufficient training to manage the systems in compliance with State, County, and local requirements. The District will provide training for the Supervisor, which training will focus on describing the things the Supervisor can and cannot do, also referred to as the “Do’s and Don’ts.” The Supervisor shall certify that he or she has received the training by signing the inspection form, and shall keep a copy of the signed form and produce it to the District upon request. See Section 6.2.2 for additional requirements.

8.2.5 Supervisor’s Duties. The Supervisor is responsible for ~~correcting~~ making sure the on-site recycled water systems are being maintained and identified properly, there are no cross-connections, signage is present and properly located, that recycled water is used properly, recycled water does not leave the use site, recycled water is used during the appropriate times, and to contact IRWD if any work which changes to the on-site systems are being considered.

8.2.6 Notification Process. The District shall notify its recycled water customers when an inspection and/or test (either or both of which are the “Work”) is required. Notification is commonly accomplished by sending a letter to the customer, although the District may also utilize electronic mail if necessary. The District shall send up to three notifications, followed by a *Notice of Violation*, as described below:

- (A) *First Notice*. The District will notify the customer when an inspection, test, or both are required. The customer will be asked to contact the District representative identified in the Notice within thirty (30) calendar days after the First Notice date to schedule the inspection and/or test, and the Work must be completed within 60 calendar days after the First Notice date.
- (B) *Second Notice*. If the customer does not schedule or complete the Work by the deadline referenced in the First Notice, the District will send a Second Notice to the customer requesting they contact the District to schedule the Work. The customer will have fifteen (15) calendar days after the Second Notice date in which to schedule the Work, and the Work must be completed within and forty-five (45) calendar days after the Second Notice date.
- (C) *Third and Final Notice*. If the customer does not schedule or complete the Work by the deadline referenced in the Second Notice, the District will send a Third and Final

Notice to the customer requiring the Work to be scheduled immediately. The customer will have ten (10) calendar days from the date of the Third and Final Notice in which to schedule the Work, and the Work must be completed within thirty (30) calendar days after the Third and Final Notice date. If customer has not scheduled or allowed the Work to be completed within the time allotted in the Third Notice, the District may issue a *Notice of Violation*.

(D) *Computing Dates*. In computing calendar days, the time period will run from the date the notice is sent, and if the deadline falls on a weekend or District holiday, then the deadline will be extended to the next business day.

8.2.7 Notice of Violation. If the customer has not scheduled or allowed the Work to be completed within the time required in the Third and Final Notice, the District will notify the customer that recycled water service will be suspended after ten (10) calendar days if the actions described in the First Notice have not been taken. If no action is taken within the time period stated in the District's *Notice of Violation*, recycled water service may be suspended or terminated in accordance with Section 14 of these Rules and Regulations.

8.2.8 Compliance, Enforcement and Penalties. The customer must correct any part of the recycled water system that violates the District State regulations at their, County requirements, or District Rules and Regulations, at the customer's sole expense including any costs associated with repair and re-testing the and within a reasonable time. If at any time the District determines that recycled water use site conditions do not comply with State, County, or local requirements or could jeopardize public health, the District may institute the procedure for suspending recycled water service immediately. Conditions that can create a basis for suspending recycled water service shall include, but are not limited to, the following:

- (A) Refusal to install or test the required backflow prevention device ~~should the~~;
- (B) Refusal to repair or replace a faulty backflow prevention device ~~fail to pass the~~ required test. Additionally, at such times that the permit holder changes;
- (C) Direct or indirect connection between a potable water system and recycled water system;
- (D) Unprotected direct or indirect connection between a potable water system and a system or equipment containing contaminants;
- (E) Unprotected direct or indirect connection between the District's recycled water system and an auxiliary water system, without prior approval of District;
- (F) A situation which presents an immediate health hazard to ~~verify~~ the District's potable water system, as determined by the health agency or the District;
- (G) Failing to ~~verify~~ design, install, operate and use recycled water system in compliance with these Rules and Regulations. State, County, or local requirements;
- (H) Failing to cooperate and comply with District's requirements for periodic visual inspection and periodic cross-connection testing of the water and recycled water systems at recycled water use sites;
- (I) Failing to comply with District's requirements to make necessary improvements to achieve compliance with State, County, or local requirements for recycled water use sites; or
- (J) Failing to identify an On-Site Recycled Water Supervisor for the recycled water use site.

8.2.9 Immediate Action. The District reserves the right to make an immediate determination as to the public health risk associated with any of the non-compliant conditions listed above in section 8.2.8. The District may take immediate action to suspend service if, in the sole judgment of the District, public health is at risk.

### 8.3 NATURAL TREATMENT SYSTEMS

Natural treatment systems that are designed and constructed by the developer shall be monitored as specified in the Procedures Guide and the NTS Design Guidelines. If, during the periods specified in the Procedures Guide and the NTS Design Guidelines, monitoring results indicate that the system is not operating as designed, the developer will provide the necessary improvements.



## SECTION 9: CONNECTION FEES

### 9.1 GENERAL

- 9.1.1 Connection fees applicable to all property to be served will be established from time to time by the Board and set forth in Exhibit B, Schedule of Rates and Charges. The property to be served must be legally described in the application for service.
- 9.1.2 If, subsequent to the issuance of the initial permit, there is a change in owner, applicant, tenant, customer, class of use, or consumption, then the District may determine that additional connection fees are required. These additional charges will be computed on the basis of the resulting increase in service capacity and flow, or on any reclassification of user type.
- 9.1.3 Whenever a change necessitates the payment of further charges to the District, the District may compare the actual use occurring on the property (based on readings taken from the water meter(s)) with the capacity estimated to be required for existing or probable future consumption to determine whether a different use permit is required. Determination by the District in this regard shall be made in a manner and following the procedures specified for revoking a permit as set forth in Section 14 of these Rules and Regulations. Such additional amount shall be payable on the effective date of such decision specified in Section 14 and shall be delinquent thirty (30) consecutive calendar days thereafter.
- 9.1.4 Any delinquent amount shall be the responsibility of all persons, entities, or concerns who are the applicant, owner, or customer who signed the application for service or any successor thereof. Any such amount may be recovered directly from any of the foregoing by means of proceedings initiated in the proper municipal or superior court of the State of California. In addition to recovering such amount by means of judicial determination or proceeding, the District may, to the extent now or subsequently permitted by law, cause such amounts to be collected by the County Tax Collector, together with any general or special taxes or similar charges on the property to which this service has been provided, and as described in the appropriate application for service. In either event, the applicant, owner, or customer and all persons signing the application shall be liable in addition to such amount individually and collectively for all costs incurred in collecting such additional amounts to the District, as determined in the manner herein provided, including a reasonable amount for attorney's fees. Also, the District may, at its discretion, terminate water, sewer, recycled water and/or natural treatment system service in the manner provided for in these Rules and Regulations if such amounts are not paid on the date in the manner herein provided.
- 9.1.5 Land which has been designated to remain undeveloped by a governmental agency exercising land use authority and which will not receive water, sewer or recycled water service (open space) will be excluded from acreage in the

computation of density for residential connection fees and from gross acreage of any parcel in the computation of commercial-industrial connection fees.

## 9.2 INTERPRETATION OF CONNECTION FEES

- 9.2.1 **Manager's Determination.** If the factual situations presented in an application by an applicant, owner, or customer do not fall within the classifications set forth in Exhibit B, Schedule of Rates and Charges, the Manager shall interpret them to establish a reasonable classification and fee. In making that interpretation, the Manager shall be guided by the policy of the District set forth herein.
- 9.2.2 **Appeal.** Any applicant, owner, or customer that does not concur in Manager's determination under Section 9.2.1 may appeal that determination to the Board. The appeal must be in writing and must set forth detail and facts supporting the differences between the request of applicant, owner, or customer and the Manager's determination. The appeal must include a specific and detailed request for action proposed by an applicant, owner, or customer setting forth the exact amount of fees that the applicant, owner or customer believes should be established and must include supporting information. Preferably, such supporting information should be prepared and submitted by a Registered Civil Engineer experienced in the construction, operation, management, and financing of municipal water and/or sewage facilities.
- 9.2.3 **Special Agreement.** If the Board grants the applicant, owner, or customer's appeal, then that connection fee charge will be implemented by a special agreement between the applicant, owner, or customer and the District, including adequate guarantees and assurances of further or additional payment at such time as the proposed use of the property described in the application for such action by the Board is modified, changed, or amended, or the extent of the use of the applicant, owner, or customer exceeds that represented to District. The decision of the District in all instances shall be final, subject to administrative or judicial review, except as otherwise provided by law.



SECTION 10: WATER AND RECYCLED WATER SERVICE LINE CHARGES,  
LOWER LATERAL CHARGES AND  
NATURAL TREATMENT SYSTEM CHARGES

10.1 WATER AND RECYCLED WATER SERVICE LINE CHARGES

10.1.1 **Installation Charges.** The District shall impose charges for the installation of and perpetual maintenance of all service lines, water and recycled water meters, and appurtenances thereto, all of which facilities are the property of the District. These service line charges, including the water connection fees, must be paid before work will be performed. Any required backflow prevention devices on potable water services and flow or pressure control devices must be provided by the applicant, owner, or customer at his expense.

10.1.2 **Charge for Meter Only.** If the applicant provides (at no cost to the District) the water or recycled water service line and appurtenances, then the District shall impose a charge for the installation of the water or recycled water meter only. The meter will remain the property of the District. The meter charge, in addition to all other usual and regular charges of the District, including any connection fee, as set forth in Exhibit B, Schedule of Rates and Charges, must be paid before work will be performed.

10.1.3 **Fire Suppression Facilities Charges.** The District shall impose charges for the installation of and perpetual maintenance of all service lines for on-site fire hydrants or automatic fire sprinkler systems, including a check valve on potable water services of a type approved by the National Board of Fire Underwriters, equipped with a bypass meter, but not including the downstream control valve, if required by the customer, all to remain the property of the District. Said charges, in addition to all other usual and regular charges of the District, including any specified connection fee, as set forth in Exhibit B, Schedule of Rates and Charges, must be paid before work will be performed.

10.1.4 **Extraordinary Work.** Whenever an installation is required by an applicant that is not covered by the schedule of charges established from time to time by the Board and set forth in Exhibit B, Schedule of Rates and Charges, such work will be done with charges based upon an estimate of costs made by the District. If a water or recycled water service line exceeds 50 feet in length, or for any other valid reason it cannot be installed for the amount stated in the appropriate schedule of charges set forth in Exhibit B, Schedule of Rates and Charges, owing to the peculiarity of the proposed service, the District reserves the right to make said installation. A deposit will be required to cover estimated costs prior to the performance of any work. Upon completion of the service installation, the deposit will be adjusted based on actual costs. If actual costs differ the from the deposit amount, the applicant, owner, or customer shall be invoiced by the District for the excess of the actual cost over the deposited amount, or refunded the difference if less than the deposit.

10.1.5 **Relocation.** Whenever water or recycled water service lines, meters, fire hydrants, or other appurtenances are requested to be moved by the applicant for

any reason whatsoever, a deposit will be required to cover estimated costs prior to the performance of any work. Upon completion of the service relocation, the deposit will be adjusted based on actual costs. If actual costs differ from the deposit amount, the applicant, owner, or customer shall be invoiced by the District for the excess of the actual cost over the deposited amount, or refunded the difference if less than the deposit.

10.1.6 **Temporary Service Connection.** A temporary service connection may be installed for use over a period of time not exceeding six (6) months. For each such connection, an application shall be filed in accordance with the provisions of Section 4.2 of these Rules and Regulations. Rates to be charged for water used from such connection shall be in accordance with “Temporary Construction Service” contained in Exhibit B, Schedule of Rates and Charges. The user of a temporary recycled water service shall designate an “Onsite Recycled Water Supervisor” in accordance with the requirements of Section 6.2.2.

## 10.2 LOWER LATERAL CHARGE

10.2.1 **Installation Charge.** The District will impose a charge for the installation of a lower lateral and connection to the customer’s upper lateral. Said charges, in addition to all other usual and regular charges of the District, including the sewer connection fee, must be paid before the work is performed. Such work will be done with charges based upon an estimate of costs made by the District. Any required backwater valves and appurtenances must be provided by the applicant, owner, or customer at his expense.

10.2.2 **Relocation.** Whenever lower laterals, manholes, or other appurtenances are requested to be moved by an applicant for any reason whatsoever, the charges shall be made on the basis of an estimate of costs by the District. The charges herein required are in addition to all other charges required by the District for sewer service and are payable pursuant to arrangements approved by the Board. A deposit will be required to cover estimated costs prior to the performance of any work. Upon completion of the service relocation, the deposit will be adjusted for actual costs. If actual costs differ from the deposited amount, the applicant, owner, or customer shall be invoiced by the District for the excess of the actual cost over the deposited amount, or refunded the difference if less than the deposited amount.

## 10.3 NATURAL TREATMENT SYSTEM CHARGES

The District will impose charges for modifications to natural treatment systems requested by the developer after the system has been constructed. Those charges, in addition to all other usual and regular charges of the District, including any specified connection fee, will be as determined by the District and must be paid to the District before work will be performed.

## SECTION 11: SECURITY DEPOSIT

As permitted by law, the District may require of an applicant, owner, or customer such a deposit, if deemed necessary by reason or estimated future water, sewer, and recycled water billings or if there is an instance or instances of monthly delinquency. The security deposit amount will not be less than the estimated cost of water, sewer, and recycled water service for a one month-period or such other amount as determined by the Manager or Board.

The District may return deposits after one year at the request of the applicant, owner, or customer, but only if all bills rendered during the twelve-month period prior to the request were paid within twenty-one (21) days after presentation.

A deposit determined by the District will be required for all construction water meters.

Upon termination of service, deposit amounts not previously returned will be applied to the final utility bill and any remaining amount refunded to the applicant, owner, or customer.

## SECTION 12: SERVICE CHARGES

### 12.1 ESTABLISHMENT OF RATES

Rates to be charged and collected and the terms, provisions, and conditions to be effective respecting such rates for water, sewer, recycled water and natural treatment system service supplied by the District to customers within the District shall be as fixed and established by the Board from time to time and set forth in Exhibit B, Schedule of Rates and Charges, which charges shall have no effect on any existing or subsequent reimbursement agreements. This provision is in addition to and not by way of derogation of any other remedies or procedures available to the District pursuant to any law or regulation or by any of the provisions of these Rules and Regulations.

### 12.2 CHANGE OF SERVICE CHARGE

The Board reserves the right to change the schedule of water, sewer, recycled water and natural treatment system service charges and other charges at any time.

### 12.3 SERVICE CHARGE BILLING

Water, sewer, recycled water and natural treatment system service charges will be rendered as part of the District water service bill at intervals of one month or multiples thereof. The District may estimate bills, based on prior consumption or other reasonable calculation in the absence of historical consumption data, and will back-bill the customer all service and other charges as set forth in Exhibit B, Schedule of Rates and Charges.

### 12.4 METERING

For the purpose of computing charges, each meter on the customer's premises will be considered separately, and readings of two or more meters will not be combined as equivalent to measurement through one meter except in those instances in which, by reason of special operating conditions, the District substitutes two or more meters of a smaller size for a single larger meter on the same service connection. In this special case, the size of service connection shall be substituted for the size of the meter in the application of the rate schedule, and shall be the basis for computing charges.

The District may determine to purchase and install smart meters on any number of District owned meters for any purpose, including customer billing. Only District meters will be used to calculate charges for use in billing. Customer meters, sub-meters, or smart meters will not be used to calculate charges, unless determined to be a suitable alternative in the absence of other means, and at the sole discretion of the District. Customer owned smart metering equipment installed on District meters is prohibited as set forth in section 4.7 of these Rules and Regulations.

### 12.5 TIME AND MANNER OF PAYMENT

12.5.1 All bills and charges for water, sewer, recycled water and natural treatment system service hereunder are due and payable upon presentation and become delinquent twenty-five (25) days later. Bills and charges are deemed to have been presented upon having been sent electronically or deposited in the United States mail, postage paid, and addressed to the applicant, owner, or customer reflected in

the records of the District. Failure to receive the bill will not release the customer from payment obligation nor will it entitle the customer to a billing discount or exempt the customer from late fees or service disconnection for non-payment. Electronic billing and automatic payment are available to the customer on request

and subject to compliance with all terms and conditions for enrollment in and use of such programs.

12.5.2 If payment is not received within twenty-five (25) days after presentation of the bill, a late charge will be levied on any unpaid balance and, following such notice and proceedings as may be required by law, the water and/or recycled water service may be discontinued if payment has been delinquent for at least sixty days. The District will provide required notice at least seven business days before discontinuance of service. Water and/or recycled water service shall not again be supplied until all delinquent bills, plus a restoration charge, which is established by the Board have been paid; if the turn-on is requested to be made outside regular working hours, an increased restoration charge shall be paid before service is restored. Payment shall be made electronically, in person or by mail at the office of the District or, at the option of the District, to its authorized collectors. If a customer appeals the water bill by contacting IRWD Customer Service Department, then the District will not discontinue service while the appeal is pending.

12.5.3 Discontinuance of water service can be suspended if an adult living at the residence formally appeals the water bill with IRWD Customer Service Department or when acceptable proof of medical and financial circumstances are submitted to the District and the customer agrees to an alternative payment schedule with respect to all delinquent charges. If a customer fails to comply with the alternative payment schedule for sixty days or more or does not pay the current residential service charges for sixty days or more, then the District may discontinue water service. If a customer wishes to re-establish service after it has been disconnected, the customer must pay the past due amount plus the service restoration charge as outlined in Exhibit B, Schedule of the Rates and Charges prior to restoring service. If the customer demonstrates that someone in the customer's household is a current recipient of certain state or federal programs or declares that the household income is below 200% of the federal poverty level, then the District will limit the customer's reconnection fees to no more than \$50.00 during regular business hours and \$95.00 after normal working hours.

~~12.5.3~~ 12.5.4 Discontinuance of service by reason of delinquent bill shall not automatically constitute revocation of permit. However, such delinquency may be considered as sufficient reason for revocation of permit in accordance with provisions of these Rules and Regulations. Discontinuance of service by reason of a delinquent bill shall not automatically constitute revocation of permit. However, such delinquency may be considered as sufficient reason for a revocation of permit in accordance with the provisions of these Rules and Regulations.

## 12.6 VARIANCE FROM RESIDENTIAL RATE STRUCTURE BUDGETS; NONRESIDENTIAL ACREAGE AND BASE INDEX REVISIONS

### 12.6.1 Residential Variance - Procedure

- (1) Variance request forms must be submitted to the Customer Service Department.

- (2) Variance requests will be processed by the Customer Service Department.
- (3) At the discretion of the District, the requesting customer may be required to have a water audit, which will be conducted by the District at no charge prior to review of the request.
- (4) Staff will notify a customer in writing if their variance request is denied.
- (5) Documents submitted by any customer as part of the variance procedure are reviewed and returned to the customer if requested. If the customer does not request the documentation back, it will be destroyed to protect the customer's privacy, except for information retained by the District to document variances or as otherwise required by law.

#### 12.6.2 Residential Variance – Determination

- (1) Grounds for a variance are:
  - (a) number of people residing in a dwelling unit
  - (b) medical needs

- (c) licensed care facilities
- (d) fire control zones (or other regulatory requirements)
- (e) landscape area
- (f) livestock/horses
- (g) common area washing machines
- (h) other, as determined on a case by case basis

(2) Proof acceptable to the District will be required of each ground(s) for a requested variance. The variance request form provides examples of acceptable proof.

(3) Limitations

- (a) An approved variance will become effective on the date the request for variance was submitted to the District.
- (b) An approved variance will be valid for a period specified by the District and must be re-confirmed on or before the expiration date to remain in effect.

(4) Calculation of the increased budgets for approved variances will be made by the District pursuant to Exhibit B, Schedule of Rates and Charges.

### **12.6.3 Nonresidential Acreage, Base Index and Sewer Charge Revisions – Procedure**

(1) Acreage (landscape) revision requests will be made by submitting an acre-change request to the Water Efficiency Department.

(2) Base index (water budget) and sewer charge revision requests for commercial industrial and public authority customers will be made by submitting a request for account evaluation to the District.

(3) At the discretion of the District, the requesting customer may be required to have a water audit, which will be conducted by the District at no charge prior to review of the request.

(4) Staff will notify a customer or their agent in writing (including email) if their request is denied.

(5) Documents submitted by any customer as part of the account evaluation procedure are reviewed and returned to the customer if requested. If the customer or agent does not request the documentation back, it will be destroyed to protect the customer's privacy, except for information retained by the District to



document the acreage, base index or sewer service charge revision or as otherwise required by law.

#### 12.6.4 **Nonresidential Acreage, Base Index and Sewer Charge Revisions – Determination**

(1) **Landscape Acreage – Grounds.** It is the obligation of the customer to provide to the District acceptable documentation of the actual area served by each metered connection. Acceptable documentation is an irrigation plan or a controller chart (site map with irrigation zone boundaries clearly marked and square footage per zone called out) signed by a California licensed landscape architect or Irrigation Association certified irrigation designer (CID).

#### (2) **Commercial/Industrial/Public Authority – Grounds**

(a) **Base Index.** Relevant factors will include expansion of productive capacity, water efficiency or conservation practices that can be shown to have reduced water usage, severe economic hardship, and other factors determined on a case by case basis.

(b) **Sewer Charges.** Relevant factors will include evaporation, product water, irrigation, or other uses that do not discharge to the sewer, and dual plumbed connections that discharge to a shared sewer line.

#### (3) **Limitations**

(a) An approved acreage or base index increase will become effective on the date the request was submitted to the District.

(b) An approved acreage increase need not be resubmitted and will remain valid unless a further acreage-change is made

(c) An approved base index increase will be valid until the account is closed or a new nonresidential tenant applies for service. When a new account is opened, the nonresidential customer will be billed at the “Base Rate” for an initial period of six months. The District will then establish a base index for the customer based on the customer’s usage for the initial six month period and may conduct on-site surveys to ensure water efficient business and irrigation practices are in place prior to beginning to bill the customer in accordance with the applicable rate structure. In the event a new tenant accepts responsibility for an existing account and the account is not closed, the existing base index for the account will remain in effect unless and until the District, on its own review or at the tenant’s request, modifies the existing base index or establishes a new base index by implementing a six-

month base index reestablishment period as described in the preceding sentence.

(4) **Calculation.** Calculation of the increased acreage, base index, or sewer charges will be made by the District pursuant to Exhibit B, Schedule of Rates and Charges.

## 12.7 ADJUSTMENT OF CHARGES

12.7.1 **Billing Errors.** In the event of discovery of an error in the computation of charges, crossed meters, unbilled meter or other error, a retroactive adjustment of the charges will be made by means of a credit or additional charge to the next bill, to the extent the District determines it has information from which the correct amount can be ascertained.

12.7.2 **Variance Adjustment – Residential.** If a variance is approved as provided in Section 12.6.2, a retroactive adjustment of the charges to the customer may be made for no more than three months prior to the variance effective date if the District determines a retroactive adjustment is warranted in accordance with the variance request and the proof submitted by the customer.

12.7.3 **Increase of Nonresidential Landscape or Base Index.** If a nonresidential customer's base index or landscape acreage is increased as provided in Section 12.6.4, a retroactive adjustment of the charges may be made for no more than six months prior to the effective date of the increase if the District determines a retroactive adjustment is warranted in accordance with the increase request and the proof submitted by the customer.

12.7.4 **Residential Landscape Adjustments.** The District will authorize a retroactive adjustment of no more than three months for the purpose of establishing new landscape if the District determines a retroactive adjustment is warranted in accordance with the proof submitted by the customer. Training shall be completed if required under Section 12.7.8.

### 12.7.5 Leak Repair Adjustments – Grounds

(1) The IRWD budget-based tiered rate structure is intended to serve as a warning sign to alert customers to possible water waste, such as a leak, by charging over-budget at the "Inefficient" and "Wasteful" tiers. When an adjustment is made for a repaired leak, the excess units of water attributed to the leak and billed in the "Inefficient", or "Wasteful" tiers are re-billed at the "Base Rate". When a customer has a leak repaired, and usage after the repair is within the customer's budget, the District will authorize an adjustment, for residential customers, of no more than two bills affected by the leak. The District may, at its discretion, authorize additional bill adjustments on a case by case basis for customers who encounter circumstances that cause delays to a leak repair.

(2) The customer is required to contact the District within two months of completing the repair of the leak in order to receive a leak adjustment. Training shall be completed if required under Section 12.7.8.

**12.7.6 Nonresidential Landscape Adjustments.** To be eligible for adjustment, an over-budget charge on a single bill must exceed the minimum amount specified in the Landscape Irrigation Adjustment Form (“LIAF”) instructions available at [www.irwd.com](http://www.irwd.com).

(1) Mainline breaks and leaks are eligible for adjustment.

(2) Other non-residential landscape adjustments shall be made on a case-by-case basis at the District’s discretion, based on the request and supporting documentation submitted by the customer.

(3) Adjustment requests shall be submitted on an IRWD LIAF which is available online, in accordance with the LIAF instructions. Training shall be completed if required under Section 12.7.8.

**12.7.7 Courtesy Adjustments – Residential and Nonresidential Customers.** An adjustment of charges not otherwise provided for in this Section 12.7 may be authorized by the District as a courtesy adjustment for special circumstances determined on a case-by case basis. A courtesy adjustment may include up to, but no more than six months of charges, and no more than one courtesy adjustment will be authorized within a 12-month period.

**12.7.8 Training Requirement for Adjustments.** For billing adjustments made under 12.7.4, 12.7.5 and 12.7.6, the District, at its discretion, may require the customer to complete a free water use efficiency training session offered or provided by the District, in order to receive the billing adjustment.

### SECTION 13: SEVERABILITY

If any section, subsection, clause, or phrase of these Rules and Regulations is for any reason held to be invalid or unconstitutional, that decision will not affect the remaining portions of these Rules and Regulations. The Board declares that it would have passed said Rules and Regulations by section, subsection, sentence, clause, or phrase thereof.

## SECTION 14: ENFORCEMENT AND PENALTIES

### 14.1 GENERAL

- 14.1.1 **Violation.** It is unlawful to violate any provision of these Rules and Regulations or a permit issued by the District.
- 14.1.2 **Notice of Violation.** The District shall notify any person found violating any of these Rules and Regulations, any permit issued by the District, or any applicable Federal, State, or local statutes, regulations, ordinances, or other requirement. The written notice of violation will state the nature of the violation and provide a reasonable time to correct that violation. The offender must, within the time stated in the notice, permanently cease all violations. This provision is in addition to and not by way of derogation of any other remedies or procedures available to the District by law, regulation, or pursuant to any of the provisions of these Rules and Regulations including, but not limited to, Section 7 and Section 15.
- 14.1.3 **Misdemeanor; Fines.** Pursuant to Water Code Section 35424, any violation of these Rules and Regulations is a misdemeanor, the violation of which shall, upon conviction, be subject to a fine of not less than \$25.00 nor more than \$200.00. Pursuant to Water Code Section 377, any violation of Section 15 is a misdemeanor punishable by imprisonment in the County Jail for not more than 30 days or by fine of not more than \$1,000, and a violator may also be held civilly liable in an amount not to exceed \$10,000.
- 14.1.4 **Revocation.** Failure to permanently cease all violations within the time stated in the Notice of Violation will result in revocation of the permit by the District and termination of water, sewer, recycled water and/or natural treatment system service as provided in Sections 14.2 and 14.3. Violations regarding any one service may result, at the sole discretion of the Board or Manager, in termination of any combination of or all water, sewer, recycled water and natural treatment system service.

### 14.2 INTERIM REVOCATION

In cases where the serious nature of the violations described above require immediate action, the Board or Manager may, in the sole discretion of the Board or Manager, immediately revoke the permit on an interim basis and thereupon cease water, sewer, recycled water and/or natural treatment system service, subject to a timely decision on permanent revocation of permit pursuant to a public hearing as provided herein. In cases of sewer service termination, there shall be no discharge of any type by an applicant, owner, or customer into the District's sewer facilities.

### 14.3 PERMANENT REVOCATION

- 14.3.1 **Notice; Public Hearing.** Permanent revocation of a permit shall occur only subsequent to a public hearing held in the manner hereinafter provided. The

applicant, owner, or customer shall be given written notice ten (10) calendar days prior to a hearing on the possible permanent revocation of any permit by the District. The notice shall specify the grounds of the proposed revocation of any such permit in reasonable detail. It may but need not describe suggested corrective action acceptable to the District. Notice may be delivered personally to the applicant, owner, or customer or it may be given by depositing such in the United States mail with postage prepaid, addressed to the applicant, owner, or customer either at the address for the applicant, owner, or customer as reflected on the last equalized assessment roll of the County of Orange as defined in the Revenue and Taxation Code of the State of California.

14.3.2 **Effectiveness of Revocation.** Any action to permanently revoke the permit shall be effective ten (10) calendar days after notice of the Board's decision. The District shall notify the applicant, owner, or customer by United States mail, postage prepaid, addressed to the applicant, owner, or customer.

14.3.3 **Surcharge.** In the alternative to revocation, the District may establish a fine or penalty amount on the continuation of water, sewer, recycled water and/or natural treatment system service by the District until such time as the applicant, owner, or customer has taken action to comply with all of the herein above described requirements for obtaining service from the District in its reasonable discretion. Any request to reestablish service subsequent to the revocation of a permit and the termination of water, sewer, recycled water and/or natural treatment system service shall be in the manner prescribed for initially obtaining service from the District, which may include the collection of a security deposit. However, in addition, the District may, in its discretion, require that an agreement and financial security conditioned upon compliance with the District's Rules and Regulations be provided in an amount, manner, and for a period of time as determined by the Board.

14.3.4 **Application.** The foregoing provisions of these Rules and Regulations apply to all permits.

14.3.5 **Waiver/Modification.** The Board, if it deems such to be in the best interest of the District, may on an interim basis or otherwise waive or modify any of the foregoing.

SECTION 15: WATER CONSERVATION AND  
WATER SUPPLY SHORTAGE PROGRAM AND REGULATIONS

15.1 GENERAL

15.1.1 **Title.** This section will be known as the Irvine Ranch Water District Water Conservation and Water Supply Shortage Program.

15.1.2 **Findings**

(1) A reliable minimum supply of water is essential to the public health, safety and welfare of the people and economy of the southern California region.

(2) Southern California is a semi-arid region. A growing population, climate change, environmental concerns and other factors in other parts of the State and western United States make the region susceptible to water supply reliability issues.

(3) Careful water management that includes active water efficiency and conservation measures, not only in times of drought but at all times, is essential to ensure a reliable supply of water to meet current and future water supply needs.

(4) Article X, Section 2, of the California Constitution declares that the general welfare requires that water resources be put to beneficial use, that waste or unreasonable use or unreasonable method of use of water be prevented and that conservation of water be fully exercised with a view to the reasonable and beneficial use thereof.

(5) California Water Code section 375 authorizes a water supplier to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies.

(6) The adoption and enforcement of a water conservation and supply shortage program is necessary to manage the District's water supply to avoid or minimize the effects of a supply shortage within the District. Such a program is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare.

(7) Recycled water is produced and supplied by the District to conserve potable water. Recycled water, like potable water, must be used efficiently and is therefore included in this Program.

15.1.3 **Application.** The provisions of this section apply to all persons using water in any area of the District in which the District provides retail water service, regardless of whether any person using water has a permit or contract for service with the District, and applies to all potable and recycled water supplied by the District.

15.1.4 **Water Shortage Contingency Plan.** The District has adopted a Water Shortage Contingency Plan pursuant to Water Code Section 10632. The Water Shortage Contingency Plan, as amended from time to time, describes the restrictions and other response measures that can be implemented by the Board in declaring a water shortage level and provides policy considerations, criteria and other guidance for the selection and implementation of these measures.

## 15.2 DECLARATION OF PURPOSE AND INTENT

15.2.1 The purpose of this section is to establish a water conservation and supply shortage program that will reduce water consumption within the District through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the District to avoid and minimize the effect and hardship of water shortage to the greatest extent possible.

15.2.2 This section establishes permanent water use efficiency standards intended to alter behavior related to water use efficiency for non-shortage conditions and further establishes six levels of water supply shortage response actions to be implemented during times of declared water shortage or declared water shortage emergency, with measures designed to achieve progressively greater levels of conservation in response to worsening shortage or emergency conditions and decreasing supplies.

15.2.3 This section is intended to complement and be used in tandem with the budget-based tiered pricing structure adopted by the District in 1991 and implemented under Section 12.1 of these Rules and Regulations on an ongoing basis as part of the District's rates and charges. The budget-based pricing structure encourages use within a water budget through a significantly tiered commodity pricing system, and discourages wasteful use. The response measures for the levels of water supply shortage include a set of measures, referred to as "demand management" measures, that can be implemented through the budget-based pricing structure. Any modifications to the pricing structure must be consistent with the provisions of Proposition 218.

## 15.3 EXEMPTIONS

15.3.1 The General Manager may permit an exemption from the permanent restrictions set forth in 15.4 or restrictions implemented pursuant to the Water Shortage Contingency Plan during a shortage level under 15.5, upon a finding that enforcement of the applicable restriction would either (1) cause an unnecessary and undue hardship to the applicant or the public, or (2) would cause or threaten an emergency condition affecting the health, sanitation, fire protection, or safety of the applicant or the public.

15.3.2 The General Manager of the District or his designee may require the use of any water conservation devices or practices as he deems appropriate as a condition of the exemption permit. He shall promulgate a list of approved devices.



15.3.3 Section 12.6 sets forth the procedures to apply for variances from water budgets under the budget-based tiered pricing structure.

#### 15.4 GENERAL PROHIBITIONS AND ONGOING MEASURES

15.4.1 **Prohibitions.** The following prohibitions are in effect at all times, regardless of whether any declared shortage condition is in effect.

(1) **Gutter Flooding** - No person shall cause or permit any water furnished to any property within the District to run or to escape from any hose, pipe, valve, faucet, sprinkler, or irrigation device into any gutter or otherwise to escape from the property if such running or escaping can reasonably be prevented.

(2) **Leaks** - No person shall permit leaks of water that he has the authority to eliminate.

(3) **Washing Hard Surface Areas** - Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards.

(4) **Waste** - No person shall cause or permit water under his control to be wasted.

(5) **Washing of Motor Vehicle** – No person shall wash a motor vehicle with a hose not fitted with a shut-off nozzle.

(6) **Use of Potable Water in a Fountain** – No person shall use potable water in a fountain or other decorative feature, except where the water is recirculated, or recirculation would cause a public health safety or sanitary hazard.

(7) **Application of Potable Water to Outdoor Landscapes** – No person shall apply potable water to outdoor landscapes during and within 48 hours of measureable rainfall.

(8) **Irrigation of Public Street Medians** – No person shall use potable water to irrigate ornamental turf on public street medians during a declared shortage or pursuant to any regulation adopted by the State Water Resources Control Board.

(9) **Single Pass Cooling** – No person shall operate a single pass cooling system.

(10) **Commercial Car Washes** –

(a) All new commercial car washes must be equipped with and operate recirculating systems.

- (b) Existing car washes with recirculating systems must maintain and operate the recirculation system.

15.4.2 **Demand Management.** When a declared shortage condition is not in effect, basic water budgets established by the District under the water budget-based tiered pricing structure will be limited to the amount that is reasonable for the customer's needs and property characteristics, and will exclude wasteful use. Reductions may be applied to basic budgets to establish a reasonable amount during a declared shortage condition, as specified herein.

## 15.5 IRWD WATER SUPPLY SHORTAGE LEVELS

15.5.1 **General.** The District's Water Shortage Contingency Plan provides representative measures that may be implemented during water shortage resulting from drought conditions or system interruptions. The measures may be applied individually or in combination and may vary according to the severity and duration of the shortage.

15.5.2 **Shortage Levels.** The following are the levels of shortage which may be declared by the Board in the manner prescribed by applicable provisions of the California Water Code, the approximate ranges of conditions the levels represent and the reductions to be achieved:

(1) Level One (Shortage Warning): Up to 10% shortage. Measures selected would be designed to achieve the following voluntary actions:

- Increase public awareness of the water supply situation and conservation opportunities
- Reduce over-irrigation
- Reduce over-budget use
- Encourage diligent repair of water leaks

(2) Level Two (Significant Shortage Condition): 11-20% shortage. Measures selected would be designed to incorporate the objectives listed under Level One, and achieve the following further reduction in use:

- Discourage filling of fountains, pools and water features and other discretionary uses
- Potential adjustments to outdoor water budgets to target discretionary uses for residential and landscape customers to be specified in the shortage declaration
- Establish water waste reporting hotline
- Expand conservation programs and projects, including workshops

(3) Level Three (Severe Shortage): 21-30% shortage. Measures selected would be designed to incorporate the objectives listed under Level Two, and achieve the following further reduction in use:

- Implement a public outreach campaign to increase public awareness
- Enhance incentives for water saving devices and programs
- Targeted outreach to high use non-residential customers
- Potential further reductions to outdoor water budgets to a level that sustains only drought-tolerant landscaping

(4) Level Four (Severe Shortage): 31%- 40% shortage. Measures selected would be designed to incorporate the objectives listed under Level Three, and achieve the following further reduction in use:

- Further reduce or eliminate discretionary uses
- Implement direct install programs to retrofit inefficient devices and landscape equipment
- Reductions to water budgets for commercial, industrial and public authority customers, while minimizing economic impacts
- Elimination of specific municipal uses such as non-required hydrant flushing, street cleaning and water-based recreation

(5) Level Five (Crisis Shortage): 41%- 50% shortage. Measures selected would be designed to incorporate the objectives listed under Level Four, and achieve the following further reduction in use:

- Implement pay to save incentive programs for industrial customers
- Potential adjustments to residential and landscape water budgets to the elimination of all non-recycled water outdoor uses
- Cease all non-recycled water outdoor water uses for landscape and agriculture, subject to reserved rights relating to local wells

(6) Level Six (Crisis Shortage): More than 50% shortage. Measures selected would be designed to incorporate the objectives listed under Level Five, and achieve the following further reduction in use:

- Potential adjustments to water budgets to target all uses not required for health and safety
- Use of flow restrictors on severely over-budget accounts that are non-responsive to outreach
- Possible discontinuation of non-health and safety services in order to achieve the necessary demand reductions
- Other mandatory restrictions and enforcement, as necessary

15.5.3 Generally, in all Levels, it is anticipated that the District will use voluntary customer response measures and demand management measures implemented under Section 12 through the adjustments in the budget-based pricing structure. Any adjustments to the pricing structure would require conformance to the requirements of Proposition 218. Response measures during Levels Five and Six are anticipated to also include restrictions or prohibitions, but this will be

determined by the District in its discretion at time of implementation. To achieve the reductions indicated above under the various levels, the conservation measures that may be implemented by the shortage declaration are listed below, shown with the levels in which they are anticipated to be used. Reference is made to the Water Shortage Contingency Plan for a more detailed discussion of response measures and the manner in which they may be used in the various shortage levels. At the time of declaring a level of shortage conditions, the Board in its discretion will determine the particular response measures that will be implemented. The list below is intended to be illustrative and not exclusive, and does not preclude the implementation of measures in a different level from the level(s) shown or the implementation of other measures in lieu of or in addition to those described below or in the Water Shortage Contingency Plan:

- Enhanced public awareness campaign (all Levels)
- Intensified use of surveys/assistance for customers in highest budget tiers (all Levels)
- Reduction of basic water budgets (all Levels)
- Adjustment of pricing tier thresholds, shifting usage into higher tiers (Levels Two, Three, Four, Five and Six)
- Restriction of uses (Level Four)
- Prohibition of uses (Levels Four, Five and Six)

The demand management measures included in the list above will be implemented through changes in the District's budget-based tiered pricing structure designed to strengthen the pricing signal and achieve desired water savings in the declared shortage level, including changes in the budget based water budgets of customers or customer classes (residential, landscape, commercial, etc.), changes in the usage volumes subject to the pricing tiers, and changes in the applicable commodity rates for the tiers. These changes will be implemented under Section 12 through the adoption of a revised Exhibit B, Schedule of Rates and Charges.

The general prohibitions specified in Section 15.4 apply to the use of potable (domestic), untreated and recycled water. The application of shortage level response measures or restrictions may vary as to type of water service. In the implementation of measures or restrictions on potable water service through the declaration of a shortage level, the District will determine and set forth how and to what extent, if any, such measures or restrictions, or different measures or restrictions, will be applied to non-potable water services furnished by the District.

## 15.6 REPORTING AND ENFORCEMENT

**15.6.1 Measures implemented through budget-based tiered pricing structure.** As described in Section 15.2, the District's budget-based tiered pricing structure complements and is used in an integral manner within the water conservation and water supply shortage program. As part of the program, the pricing structure performs both reporting and enforcement functions: (1) the billing of water usage within the various pricing tiers serves as an effective reporting mechanism to identify customers who are overusing water or may be using water in discouraged or prohibited manners, and tells the District and the District's customer what

amounts of conservation are being achieved and where high usage should be the focus of additional effort; and (2) the effectiveness of the budget-based tiered pricing structure means that the rate structure and adjustments to it can achieve the same result as, and be used by the District in lieu or partially in lieu of, restrictions and enforcement measures in times of declared shortage conditions. As a result the response measures in Section 15.5 include demand management measures to be implemented through the budget-based tiered pricing structure, which is enforced through the District's billing procedures.

#### 15.6.2 Enforcement of Restrictions

(1) This Section 15 and Section 4 are part of the District's water conservation program and are adopted pursuant to Water Code Section 376. Subject to appeal to the Board of Directors, the General Manager may take any measures authorized under Water Code Section 377 to hold a person civilly liable for violation of the District's water conservation program.

(2) Prior to enforcement of the restrictions pursuant to Section 15.4 (General Prohibitions) and 15.5 (Shortage Restrictions), any person who is suspected of violating the restrictions hereby imposed shall be given a preliminary notice in writing of such violation, with the description of violation set forth in such preliminary notice. Such person shall have 24 hours to correct such violation, or terminate the use. If the violation is not corrected or the use not terminated, the General Manager may immediately:

(a) disconnect service,

(b) install flow-restricting devices restricting non-health and safety related water service, or

(c) order issued a second preliminary notice.

(3) Service disconnected or restricted pursuant to 1(a) or 1(b) above will be restored only upon payment of the turn-on and other charges fixed by the Board of Directors as provided in these Rules and Regulations.

(4) Any other sanctions or penalties that the District is presently authorized to impose or that the District may at some future time be authorized to impose may be imposed to enforce this prohibition of water wastage.

(5) From and after the publication or posting of any ordinance or resolution implementing any restrictions or mandatory measures under the Water Shortage Contingency Plan, violations thereof shall be misdemeanors punishable by imprisonment in the County Jail for not more than 30 days or by fine of not more than \$1,000, or both, or as otherwise provided by law or such resolution or ordinance.

## SECTION 16: WATER WELLS

### 16.1 PURPOSE

16.1.1 The District has an important interest, along with other appropriate regulatory agencies, in monitoring the groundwater basin located within its boundaries to obtain information as to its quantity, quality and other characteristics on an historical and ongoing basis. Many wells have been constructed and operated within the District for agricultural purposes by private users. From time to time, due to increasing urbanization, some of these wells are no longer needed as production wells.

16.1.2 The purpose of this section is to regulate the construction and reconstruction of all existing and future water wells, to provide for the destruction or other use of abandoned wells, and to provide for the initiation and completion of corrective measures relative to wells within the District, to accomplish the following:

- (1) To protect the quality of the groundwater within the District;
- (2) To protect the health, safety, and welfare of the residents of the District;
- (3) To protect the capability of the District to produce and distribute water for the use, benefit and protection of the residents of the District;
- (4) To avoid premature destruction of wells that can be converted to monitoring or production use.

### 16.2 DEFINITIONS

16.2.1 “**Destruction**” of a well means the complete filling and sealing of the well in accordance with the procedures outlined in the standards incorporated into this Section.

16.2.2 “**Well**” means any excavation constructed by any method for the purpose of extracting water from or injecting water into the underground, for providing cathodic protection or electrical grounding of equipment, for making tests or observations of underground conditions, or for any other similar purpose. Wells shall include, but shall not be limited to, community water supply wells, individual domestic wells, industrial wells, agricultural wells, cathodic protection wells, electrical grounding wells, test and exploratory holes, observation wells, saltwater barrier wells, and other wells whose regulation is necessary to fulfill the purpose of this chapter as determined by the Manager. Wells do not include:

- (1) Oil and gas wells, geothermal wells, or other wells constructed under the jurisdiction of the State Department of Conservation, except any such wells converted to use as water wells;

(2) Wells used for the purpose of dewatering excavations during construction, monitoring high groundwater during construction, monitoring or ascertaining the existence of groundwater contamination, or stabilizing hillsides or earth embankments; or

(3) Wells less than 50 feet in depth or 6 inches in diameter.

(4) Other wells whose regulation is not necessary to fulfill the purpose of this chapter as determined by the Manager.

16.2.3 A well will be presumed to be “abandoned” when it has not been used for its intended purpose for a period of one year.

### 16.3 PROHIBITED ACTS — PERMITS REQUIRED

16.3.1 No person, firm, or private or public corporation or agency shall construct or reconstruct any well within the boundaries of the District unless such construction or reconstruction is carried out pursuant to and in conformance with a written permit issued for that purpose by the Manager as provided in this Section.

16.3.2 No owner or operator of an existing well shall allow it to remain in an unused condition except in accordance with Section 16.4. An used well determined to be abandoned shall be destroyed pursuant to and in conformity with the requirements of the District as set forth in this Section unless the Manager determines that the District desires to acquire and equip the well for monitoring or production purposes.

### 16.4 UNUSED WELLS — DETERMINATION OF NONABANDONMENT

16.4.1 If a well has not been used for any of the purposes set forth in the definition of “well” for a period of one year, such well shall be presumed to have been abandoned, and the burden of proof shall thereupon be upon the owner or operator of the well to establish to the satisfaction of the Manager that the well has not been abandoned and that the owner and operator intends to continue to use the well for the intended purposes. The Manager shall require a written declaration under penalty of perjury concerning intended future use to be filed by the owner or operator of the well before the Manager determines that the well has not been abandoned. Application for the renewal of a determination of nonabandonment shall be required to be presented to the Manager by the owner or operator at the beginning of each calendar year. Such renewal applications shall be accompanied by a new written declaration filed under penalty of perjury. Test holes and exploratory holes shall be considered abandoned twenty-four hours after construction work has been completed unless otherwise determined by the Manager.

16.4.2 In the event the Manager determines that a well is indeed abandoned, unless the Manager determines that the District desires to acquire and equip the well for monitoring or production purposes, the well shall be destroyed within thirty days

in accordance with the provisions of this chapter. However, the owner shall be given written notice of this determination by the Manager. The notice shall specify the reasons for this decision and shall notify the owner of his right to request a hearing before the Board of Directors within ten days.

## 16.5 PERMITS

16.5.1 Applications for permits to construct, reconstruct, or destroy any well shall be made to the Manager and shall contain or provide such information as he shall require.

16.5.2 Each application shall be accompanied by a fee which shall be established by the Board of Directors. A permit shall remain in effect for one year from the date of issuance.

16.5.3 Permits may be issued subject to any condition or requirement found by the Manager to be necessary to accomplish the purposes of this chapter.

16.5.4 A permit may be canceled or the conditions amended by the Manager if he determines that to proceed with the work would result in a violation of the terms of the permit or of this Section.

16.5.5 In the event that a permit is denied or canceled, the applicant or permit holder shall be given written notice by the Manager, which notice shall specify the reasons for his action, and shall notify the applicant or permit holder of his right to request a hearing before the Board of Directors within ten days.

## 16.6 COMPLETION OF WORK — NOTICE TO MANAGER — INSPECTION

The permittee shall notify the Manager in writing upon completion of the work performed under the permit, and no work shall be deemed to have been completed until such written notification has been received. A final inspection of the work shall be made by the Manager, and no permittee shall be deemed to have complied with the provisions of this chapter of his permit until such inspection has been performed and the work approved by the Manager.

## 16.7 NOTICE UPON DETERMINATION OF THREAT TO WATER QUALITY, HEALTH OR SAFETY

In the event the Manager determines that a well threatens to impair the quality of the groundwater or otherwise jeopardize the health or safety of the public, he shall send written notice to the owner and shall post a copy of the notice on the property. The notice shall state the specific facts relative to the condition, the corrective measures deemed necessary, and the date on or before which such measure shall be completed. The owner shall also be notified of his right to request a hearing before the Board of Directors within thirty days from the date such notice is issued.



16.8 IMMEDIATE ABATEMENT OF THREAT TO WATER QUALITY, HEALTH OR SAFETY

If the Manager finds that immediate action is necessary to prevent impairment of the groundwater or a threat to the health or safety of the public he may correct the condition without giving notice. The District may charge the cost of the corrective measure to the owner. However, within twenty-four hours after initiating such corrective measure, the Manager shall notify the owner of the time, date and place at which a hearing shall be held by the Board of Directors relating thereto; which date shall be not less than ten nor more than thirty days after the date of such notification.

16.9 BOARD OF DIRECTORS HEARING

- 16.9.1 At the time fixed for a hearing before the Board of Directors concerning an abandoned well, a permit, or a threat to water quality, health or safety, as provided for in this chapter, the Board of Directors shall hear and consider all relevant testimony and evidence offered by the property owner and by any other interested person.
- 16.9.2 If the Board of Directors determines that an unused well was incorrectly classified as abandoned or that a permit was improperly denied or canceled, it shall direct the Manager to reclassify the well or to issue or reinstate the permit.
- 16.9.3 If the Board of Directors finds that a threat to water quality, health or safety, as determined by the Manager, does exist, then it shall direct the Manager to take any necessary action to protect the groundwater or the health and safety of the public unless the situation is corrected by the owner on or before a date to be specified by the Board of Directors. The cost of such corrective measures by the Manager shall be charged to the owner or operator.
- 16.9.4 In instances where the Manager has corrected a condition under the immediate correction provision of Section 16.8, the Board of Directors shall ascertain and review the pertinent facts concerning the correction. If the Board of Directors determines that the Manager’s actions were justified, then it shall direct that the cost be charged to the owner or operator.

16.10 STANDARDS FOR CONSTRUCTION, RECONSTRUCTION OR DESTRUCTION

Standards for the construction, reconstruction, or destruction of wells shall be the standards recommended in the State Department of Water Resources Bulletin No. 74, Chapter II, and future amendments thereto. Standards for the construction, reconstruction, or destruction of cathodic protection wells shall be the standards recommended in the State Department of Water Resources Bulletin No. 74-1, and future amendments thereto.

16.11 VIOLATION — PENALTY

Any violation or failure to comply with any of the provisions of this Section shall be handled as provided in herein and shall also be subject to Section 14 as applicable.

## 16.12 AGREEMENTS

The District may enter into agreements with property owners concerning the drilling or abandonment of wells and/or other matters covered in this Section, and providing for alternate or modified methods of meeting certain of the requirements contained herein. In such cases, the agreement(s) will govern as to the applicability of the affected requirements, in the area(s) subject to such agreements.

## 16.13 NO LIABILITY ASSUMED

Notwithstanding the provisions of this Section permitting or requiring the District or Manager to issue permits, make determinations and/or take corrective measures relative to construction, reconstruction abandonment and destruction of wells and quality of groundwater, the District assumes no liability to the property owners or operators of wells or any third parties, for the making of or failure to make any such determination, or the taking of or failure to take any such measure, or the issuing of or failure to issue any such permit.

## SECTION 17: DISTRICT NATURAL TREATMENT SYSTEM FACILITIES

### 17.1 GENERAL

The District, in cooperation with the County of Orange and various local cities, is developing a network of constructed water quality wetlands and bioretention cells designed to treat urban runoff within the drainage watersheds that are completely or partially within the District boundaries. These constructed water quality wetlands and bioretention cells are also known as natural treatment systems (NTS).

Developers shall provide for the design, construction and establishment of one or more natural treatment systems per the Procedures Guide, the District's Natural Treatment System Master Plan, the NTS Design Guidelines and these Rules and Regulations to treat urban runoff from their proposed development and reduce pollutants to the levels set by the regulating agencies. If permissible, and at the District's discretion, these natural treatment systems may be located within first flush stormwater retention basins provided by the developer to comply with other regulatory requirements. If, during the period specified in the Procedures Guide and the NTS Design Guidelines, the natural treatment system's level of treatment provided does not meet other regulatory requirements the District, at its discretion, may act on behalf of the County and various local Cities to direct the developer to make corrective improvements to the natural treatment system to meet the aforementioned regulatory requirements.

The operation, maintenance and water quality monitoring of the natural treatment system will be governed by agreements between the District and the County or City, as applicable. The responsibility for regulation and enforcement of surface water runoff discharges shall remain with the County and Cities.

### 17.2 URBAN RUNOFF DISCHARGE PERMITS

The County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana and San Diego Regions of the Regional Water Quality Control Board are required, under the terms of their National Pollutant Elimination Discharge System Permit, to control and manage the discharge of pollutants from urban runoff. The definition and enforcement of permitted discharges into the natural treatment system will be the responsibility of the County of Orange and the co-permittees under the NPDES permit.

### 17.3 FEES AND CHARGES FOR USE

The applicant for Natural Treatment System service shall pay the fees and operational charges set forth in the Exhibit B, Schedule of Rates and Charges, as may be amended from time to time by the District.

### 17.4 MONITORING AND MAINTENANCE

The District shall monitor and maintain the natural treatment system, as specified in the Procedures Guide and the NTS Design Guidelines, to ensure that the system is operating as designed. The District reserves the right to make modifications to the natural treatment system,

based on the monitoring results, to increase the water quality treatment effectiveness of the system.

The District's monitoring and maintenance shall be limited to the water quality functions of the natural treatment system operation and, and the District assumes no responsibility or liability for flood control functions of natural treatment systems or sites. The District, at its discretion, may provide water quality monitoring for the combined natural treatment system and first flush stormwater retention facilities.

#### 17.5 CONFLICT

In the event that any portion of this Section pertaining to discharges to the natural treatment system is inconsistent with any other provisions of the Rules and Regulations as to that discharge, the provisions of this Section will take precedence.

**Exhibit B**  
**Rates and Charges for Water, Sewer, and Recycled Water Service**  
**(Separate Document)**

**EXHIBIT C to the Rules and Regulations  
IRVINE RANCH WATER DISTRICT  
MAXIMUM ALLOWABLE LOCAL LIMITS\***

<b>Constituent</b>	<b>Concentration Limit in Milligrams/Liter (mg/L)</b>
1,4-Dioxane	1.0
Ammonia <sup>(1)</sup>	Mass
Arsenic	1.4
BOD <sup>(1)</sup>	Mass
Cadmium	0.25
Chromium (Total)	20.0
Copper	3.0
Lead	1.5
Mercury	0.03
Molybdenum	2.3
Nickel	3.2
Selenium	0.14
Silver	2.2
Zinc	9.2
Cyanide (Total)	2.4
Cyanide (Amenable)	1.0
pH (s.u.)	6.0 – 12.0
Polychlorinated Biphenyls	0.01
Pesticides	0.01
Sulfide (Total)	5.0
Sulfide (Dissolved)	0.5
Oil and grease of mineral or petroleum origin	100.0

\* Users subject to Federal Categorical Pretreatment Standards may be required to meet more stringent limits.

<sup>(1)</sup> BOD and ammonia mass discharged will be tracked by OCSD and Users

RESOLUTION NO. 2019-

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA  
RESCINDING RESOLUTION NO. 2018-14 AND ESTABLISHING REVISED  
RULES AND REGULATIONS OF THE IRVINE RANCH WATER DISTRICT  
FOR WATER, SEWER, RECYCLED WATER, AND  
NATURAL TREATMENT SYSTEM SERVICE  
AND EXHIBIT A THERETO

WHEREAS, Irvine Ranch Water District (IRWD) is a California Water District organized and existing under the California Water District Law, and all of the lands within the boundaries of said District are located in the County of Orange, State of California; and

WHEREAS, Section 35423 of the California Water Code empowers the District to establish, print and distribute equitable Rules and Regulations for the distribution of water; and

WHEREAS, the District is also empowered to exercise or use any of the powers contained in the California Water District Law in carrying out its powers and purposes to furnish sewer service and natural treatment system service, under Sections 35506 and 35539.14, respectively, of said Water Code; and

WHEREAS, by adoption of Resolution No. 2018-14 on May 29, 2018, the Board of Directors last adopted revised Rules and Regulations for Water, Sewer, Recycled Water, and Natural Treatment System Service; and

WHEREAS, from time to time, the District reviews and proposes changes to its Rules and Regulations. The proposed changes have been made to update definitions and promote consistent and conforming nomenclature throughout the document. In addition, changes have been made to specific sections as follows:

- Section 4: Clarifies meter tampering and responsibility for maintenance of water systems;
- Section 7: Updates definitions, responsibilities and requirements associated with the Fats, Oils and Grease Program;
- Section 8: Updates monitoring and inspection requirements for the recycled water system. Includes notifications and enforcement process; and
- Section 12: Updates discontinuance of water service consistent with new law SB 998

WHEREAS, the Board of Directors of IRWD find it to be in the best interest of the District to amend the Rules and Regulations.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of IRWD as follows:

Section 1. That Resolution No. 2018-14 be and hereby is rescinded in its entirety.

Section 2. That the amendments to the Rules and Regulations of the Irvine Ranch Water District for Water, Sewer, Recycled Water, and Natural Treatment System Service, as more specifically shown in EXHIBIT “A” to this Resolution, attached hereto and by this reference made a part hereof, be and hereby are approved and adopted.

Section 3. That the provisions of this Resolution shall become effective upon adoption.

Section 4. That the Rules and Regulations, as amended as shown on Exhibit A, shall be certified by the Secretary of this District and the Secretary is hereby ordered and directed to publish a summary of the amendments to said Rules and Regulations, together with the internet address and the physical location where the complete text of the amended Rules and Regulations may be viewed, once a week for two weeks in a newspaper of general circulation published in Orange County, California, pursuant to the provisions of Section 35424 of the California Water Code.

ADOPTED, SIGNED and APPROVED this 16<sup>th</sup> day of December 2019.

\_\_\_\_\_  
President, IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

\_\_\_\_\_  
Secretary, IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

APPROVED AS TO FORM:  
LEWIS BRISBOIS  
Legal Counsel - IRWD

By \_\_\_\_\_



December 16, 2019  
Prepared and  
submitted by: K. Swan  
Approved by: Paul A. Cook



CONSENT CALENDAR

RATIFY/APPROVE BOARD OF DIRECTORS'  
ATTENDANCE AT MEETINGS AND EVENTS

SUMMARY:

Pursuant to Resolution 2006-29 adopted on August 28, 2006, the following events and meetings require approval by the Board of Directors.

Events/Meetings

Steven LaMar

December 10	City of Irvine City Council Meeting for Irvine Global Village Festival Presentation to Sponsors
January 6-8, 2020	NWRA Leadership Forum, Scottsdale, AZ

Mary Aileen Matheis

December 10	Chapman University Economic Forecast
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Douglas Reinhart

December 10	Chapman University Economic Forecast
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Peer Swan

January 21-23, 2020	CASA 2020 Winter Conference, Indian Wells
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RECOMMENDATION:

THAT THE BOARD RATIFY/APPROVE THE MEETINGS AND EVENTS FOR STEVEN LAMAR, MARY AILEEN MATHEIS, DOUGLAS REINHART, AND PEER SWAN AS DESCRIBED HEREIN.

LIST OF EXHIBITS:

None.

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December 16, 2019  
Prepared and  
submitted by: L. Bonkowski  
Approved by: Paul A. Cook



CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the November 25, 2019 Regular Board meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE NOVEMBER 25, 2019 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – November 25, 2019 Special Board Minutes

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EXHIBIT “A”

MINUTES OF REGULAR MEETING – NOVEMBER 25, 2019

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President LaMar on November 25, 2019 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Reinhart, Swan, Matheis, Withers and LaMar.

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Technical Services Burton, Executive Director of Water Policy Weghorst, Executive Director of Finance and Administration Clary, Executive Director of Operations Chambers, General Counsel Collins, Director of Public Affairs Beeman, Director of Maintenance Mykitta, Director of Human Resources Roney, Director of Water Resources Sanchez, Secretary Bonkowski, Assistant Secretary Swan, Mr. Bruce Newell, Mr. Jim Herbert, and members of staff and the public.

WRITTEN AND ORAL COMMUNICATIONS: None.

ITEMS TOO LATE TO BE AGENDIZED: None.

PRESENTATIONS

RESOLUTION RECOGNIZING JOHN WITHERS FOR HIS 30 YEARS OF SERVICE TO IRWD AS A DIRECTOR OF THE BOARD

President LaMar presented Director Withers with a plaque recognizing him for his 30 years of service. He highlighted accomplishments including service on the Local Agency Formation Commission for over 20 years, the Santa Ana Regional Water Quality Board being appointed by California Governors, and representation at the Orange County Sanitation District Board and the Independent Special Districts of Orange County. Director Withers thanked General Manager Paul Cook for assembling a strong staff and inspiring them.

On MOTION by Matheis, seconded by Reinhart, and unanimously carried, THE FOLLOWING RESOLUTION WAS ADOPTED BY TITLE:

RESOLUTION NO. 2019-29

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA  
RECOGNIZING JOHN WITHERS FOR HIS 30 YEARS OF SERVICE  
TO IRWD AS A DIRECTOR OF THE BOARD

PRESENTATIONS (CONTINUED)

RESOLUTION RECOGNIZING PEER A. SWAN FOR HIS 40 YEARS OF SERVICE TO IRWD AS A DIRECTOR OF THE BOARD

President LaMar presented Director Swan with a plaque recognizing him for his 40 years of service. He highlighted accomplishments including his commitment to the San Joaquin Wildlife Sanctuary, the National Water Research Institute, the California Association of Sanitation Agencies, and the Water Education Foundation. Orange County Sanitation District's General Manager Herberg commended both Directors on their service to the Board and the community. Director Swan noted IRWD's history of maintaining rates among the lowest in Orange County, and establishing the San Joaquin Wildlife Sanctuary and opening the facilities for public use. He further noted the resolution he received in 1996, which he brought to the Board meeting, and highlighted what he accomplished at that milestone of his career as a Board member. Director Withers complimented the Board members on their diversity and said he believed that being a Board member is an honorable service for one to hold. Both Directors Matheis and Reinhart commended Director Withers and Swan on their accomplishments. General Manager Cook thanked Directors Swan and Withers for their support and for challenging him and staff to exceed expectations on what can be accomplished at the District.

There being no further comments, on MOTION by Reinhart, seconded by Matheis, and unanimously carried, THE FOLLOWING RESOLUTION WAS ADOPTED BY TITLE:

RESOLUTION NO. 2019-30

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA  
RECOGNIZING PEER A. SWAN FOR HIS 40 YEARS OF SERVICE  
TO IRWD AS A DIRECTOR OF THE BOARD

PUBLIC HEARING - CHANGES TO IRWD'S RULES AND REGULATIONS

President LaMar declared this to be the time and place for the hearing on the resolution. He asked Secretary Bonkowski to report the manner by which the Notice of Hearing was given.

Secretary Bonkowski said that the Notice of this hearing was published in the Orange County Register on November 10, 2019, and also posted in the District office on November 11, 2019. She presented an Affidavit of Posting and Proof of Publication for the Board to receive and file.

On MOTION by Swan, seconded by Matheis, and unanimously carried, THE AFFIDAVIT OF POSTING AND THE PROOF OF PUBLICATION PRESENTED BY THE SECRETARY WAS RECEIVED AND FILED.

President LaMar inquired of the Secretary whether there have been any written communications. Secretary Bonkowski said there was none.

PUBLIC HEARING - CHANGES TO IRWD'S RULES AND REGULATIONS (CONTINUED)

President LaMar asked for a report from the Executive Director of Finance and Administration Clary.

Executive Director of Finance and Administration Clary described the proposed revisions saying they included: 1) updated definitions, responsibilities and requirements associated with the Fats, Oils and Grease Program; 2) updated monitoring and inspection requirements for the recycled water system; and 3) updated discontinuance of water service requirements consistent with new state law. Additionally, she said that they also included non-substantive changes consisting of expanded, clarified and updated definitions.

President LaMar asked if there was anyone present who wished to address the Board concerning the amended Resolution. There was none.

President LaMar asked whether there were any comments or questions from members of the Board of Directors. There was none.

President LaMar asked for a motion to close the hearing, that the resolution be read by title only by the Secretary, that further reading of the resolution be waived, and that the Secretary be directed to place the resolution on the agenda for the December 16, 2019 meeting of the Board of Directors for a second reading, hearing and adoption.

On MOTION by Swan, seconded by Matheis, and unanimously carried, THE HEARING WAS CLOSED, THE FOLLOWING RESOLUTION WAS READ BY THE SECRETARY BY TITLE ONLY, FURTHER READING OF THE RESOLUTION WAS WAIVED, AND THE SECRETARY WAS DIRECTED TO PLACE THE RESOLUTION ON THE AGENDA FOR THE DECEMBER 16, 2019 MEETING OF THE BOARD OF DIRECTORS FOR A SECOND READING, HEARING AND ADOPTION.

RESOLUTION RESCINDING RESOLUTION NO. 2018-14  
AND ESTABLISHING REVISED RULES AND REGULATIONS  
OF THE IRVINE RANCH WATER DISTRICT FOR WATER,  
SEWER, RECYCLED WATER, AND NATURAL  
TREATMENT SYSTEM SERVICE AND EXHIBIT "A" THERETO.

CONSENT CALENDAR

On MOTION by Reinhart, seconded by Withers, and unanimously carried, CONSENT CALENDAR ITEMS 6 THROUGH 12 WERE APPROVED AS FOLLOWS:

6. RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS

Recommendation: That the Board ratify/approve the meetings and events for Mary Aileen Matheis, Douglas Reinhart, Peer Swan, Steven LaMar and John Withers, as described.

CONSENT CALENDAR (CONTINUED)

7. MINUTES OF BOARD MEETINGS

Recommendation: That the minutes of the November 11, 2019 Special Board meeting and the November 11, 2019 Regular Board meeting be approved as presented.

8. OCTOBER 2019 TREASURY REPORT

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Summary of Fixed and Variable Rate Debt, and Disclosure Report of Reimbursements to Board members and staff; approve the October 2019 Summary of Payroll ACH payments in the total amount of \$2,117,028; and approve the October 2019 accounts payable Disbursement Summary of warrants 402586 through 403540, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$32,181,115.

9. PLANNING AREA 51 HERITAGE FIELDS CAPITAL FACILITIES

Recommendation: That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Heritage Fields for Planning Area 51, Great Park Neighborhoods, Districts 2, 3, 5, 6, 9, Domestic Water, Sanitary Sewer and Recycled Water Capital Improvements; authorize the General Manager to accept Heritage Fields' construction contract with Leatherwood Construction Inc. in the amount of \$1,615,806.60 for the Reach B East Sanitary Sewer Improvements, Project 10576; authorize the General Manager to accept Heritage Fields' construction contract with Leatherwood Construction Inc. in the amount of \$875,564.70 for the Reach C Sanitary Sewer and Recycled Water Improvements, Projects 10574 and 10734; authorize the General Manager to accept Heritage Fields' construction contract with Leatherwood Construction Inc. in the amount of \$225,835.00 for the Reach B East "P" Street Sanitary Sewer Improvements, Project 10868; and approve Contract Change Order No. 11 to Project 10117 in the amount of \$163,839.00 for the addition of deep sewer facility demolition and relocation tasks to the scope of the Reach B Sanitary Sewer Improvements.

10. PLANNING AREA 12 INNOVATION PARK CAPITAL FACILITIES

Recommendation: That the Board authorize the addition of the Planning Area 12 Innovation Park Capital Domestic Water Improvements, Project 11395 in the amount of \$410,000 to the FY 2019-20 Capital Budget, authorize the General Manager to execute a Supplemental Reimbursement Agreement with Irvine Community Development Company for Planning Area 12, Innovation Park, Domestic Water and Recycled Water Capital Improvements, and authorize the General Manager to accept Irvine Community Development Company's construction contract with Paulus Engineering, Inc. in the amount of \$560,844 for the Innovation Park Domestic Water and Recycled Water Improvements, Projects 11395 and 03734.



## CONSENT CALENDAR (CONTINUED)

### 11. SYPHON RESERVOIR GEOTECHNICAL INVESTIGATIONS PROJECT PERMITTING SERVICES VARIANCE NO. 2

Recommendation: That the Board authorize the General Manager to execute Variance No. 2 in the amount of \$160,970 to the Professional Services Agreement with ESA for additional environmental permitting work associated with the Syphon Reservoir Geotechnical Investigations Project.

### 12. KERN FAN GROUNDWATER STORAGE PROJECT VARIANCE FOR PROFESSIONAL SERVICES WITH THE HALLMARK GROUP

Recommendation: That the Board authorize the General Manager to execute Variance No. 3 in the amount of \$77,060 to the Professional Services Agreement with Hallmark Group for the development of terms for an agreement with the California Department of Water Resources for the construction of a turnout from the California Aqueduct and the operation of the Kern Fan Groundwater Storage Project.

## ACTION CALENDAR

### SAN JOAQUIN RESERVOIR FILTRATION VARIANCE NO. 2

General Manager Cook reported that the San Joaquin Reservoir Filtration project will install a filtration system and disinfection improvements at the reservoir to mitigate algae and debris entering the recycled water system. Executive Director of Engineering and Technical Services Burton said that Variance No. 2 includes additional design work due to: 1) a change to the filtration system requirements, 2) addition of a concrete masonry block building to enclose the filtration system for noise abatement purposes, and 3) inclusion of a piping system to return filter backwash waste into the reservoir.

Mr. Burton said that the original scope of work included siting the proposed filtration system under a canopy structure near the reservoir's control building, and that depending on the reservoir's water quality, the disc filtration system would need up to six backwashes per hour to remove algae and debris from the filters. Based on water quality testing, the proposed filter system was to be sized with 10-micron filters for algae removal. During preliminary design, Carollo had discussions with irrigation system manufacturers and determined that current irrigation componentry (e.g., emitter and filters) are based on water filtered to a range of 70 microns to 130 microns. Therefore, the proposed filtration system will use 70-micron disc-type filters. He said that since pneumatic valves generate noise when in operation, staff recommends enclosing the equipment in a building for noise abatement instead of covering the equipment with a canopy.

Mr. Burton said that the original scope of work also included evaluating the use of the existing reservoir seepage drain system to convey the filter backwash material back into the reservoir since there are no nearby sewer facilities. He said that the recommended option for the backwash waste is to convey the waste to the back of the reservoir through a new pipeline which will minimize the waste from entering the reservoir outlet valves near the front of the reservoir.

Returning the backwash waste to the reservoir is anticipated to be Phase I of filter backwash waste disposal. In the interim, staff procured ultrasonic buoys from LG Sonic that mitigate against algae growth, and these units will be deployed this month in the reservoir. If the buoys are unsuccessful, a Dissolved Air Flotation system and centrifuge facility may be needed in combination with the backwash waste return line constructed in Phase I.

The cost for the additional work involving the change to a 70-micron filter screen size and researching options to dispose of or return the backwash waste to the reservoir is \$45,032. With regard to the new building, Carollo determined that an additional 68 plan sheets are required for the additional design elements resulting in a fee increase of \$302,097. The unit cost per sheet is approximately \$4,400, which staff determined to be reasonable.

Director Reinhart said that this item was reviewed by the Engineering and Operations Committee on November 19, 2019, and on MOTION by Reinhart, seconded by Matheis, and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 2 IN THE AMOUNT OF \$347,129 TO CAROLLO ENGINEERS FOR THE SAN JOAQUIN RESERVOIR FILTRATION, PROJECT 10379.

#### TURTLE RIDGE NATURAL TREATMENT SYSTEM FACILITY SEDIMENT REMOVAL CONTRACT AWARD

General Manager Cook reported that the District's Turtle Ridge Natural Treatment System (NTS) facility requires sediment removal to increase water storage volume and remove accumulated pollutants. Five bids were received for this project with New Dimension General Construction, Inc. with the apparent low bid in the amount of \$158,800. New Dimension will remove the sediment from the facility and will deliver the material to IRWD's operations yard where staff will determine final disposal options. In response to Director Swan's inquiry relative to the water levels in Ponds 1 and 2 which he believed were low due to silting, Natural Resources Manager Swift said these ponds were surveyed a few years ago, but will check the report accordingly. There being no further comments, on MOTION by Reinhart, seconded and unanimously carried, THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH NEW DIMENSION GENERAL CONSTRUCTION IN THE AMOUNT OF \$158,800 FOR SEDIMENT REMOVAL AT THE TURTLE RIDGE NATURAL TREATMENT SYSTEM FACILITY.

#### REVISED TERMS FOR A 4-FOR-1 PILOT EXCHANGE PROGRAM WITH MOJAVE WATER AGENCY

General Manager Cook reported that on March 11, 2019, the IRWD Board authorized the General Manager to execute a letter agreement with Mojave Water Agency (Mojave) to implement a 4-for-1 pilot exchange and a side agreement to compensate Mojave for State Water Project (SWP) exchange water delivered into storage. Mr. Cook said that the pilot exchange was executed but not implemented because IRWD and Mojave had approved the exchange after the Department of Water Resources (DWR) had increased the SWP allocation to 70%. DWR requires that the SWP allocation that is in place at the time when a 4-for-1 exchange program agreement is executed be less than 25%.

Mr. Cook said that staff has worked with Mojave to update the terms for the exchange so that Mojave could bank its SWP supplies in IRWD's water bank prior to the end of 2021. If IRWD and Mojave approve an exchange agreement based on the updated terms at the beginning of 2020 (when the initial SWP allocation could be below 25%), then it is likely that DWR will approve the 4-for-1 exchange program.

Executive of Water Policy Weghorst said that the proposed updated terms provided in the exhibit are substantially the same as those previously approved with Mojave. Mr. Weghorst said that the revisions include some clarifications requested by DWR as it relates to Metropolitan Water District of Southern California's role in the exchange of SWP water on behalf of IRWD. He said that through this proposed pilot program, IRWD would receive three acre-feet (AF) for every four AF of SWP water that Mojave delivers into storage at IRWD's water bank, with Mojave receiving compensation for the water through a separate agreement. The terms would allow Mojave, at its discretion, to deliver up to 20,000 AF of SWP Table A water to IRWD's water bank through the end of 2021.

Mojave would be able to deliver water into IRWD's water bank only if recharge capacity is available after IRWD completes the recharge of water available from its other exchange programs. In this way, IRWD retains its discretion as to whether Mojave can deliver water to IRWD's water bank. Within 10 years, IRWD would return 25% of the water to Mojave through the use of the IRWD's water bank wells (or alternatively through exchanges). The water would be returned when requested by Mojave on a second priority basis, with IRWD retaining first priority. The revised terms reflect that IRWD would return water to Mojave at an annual rate of no more than one-third of the amount delivered into storage that is allocated to Mojave. Mojave could request to recover more water should IRWD determine that capacity is available.

Director Swan reported that this item was reviewed by the Supply Reliability Programs Committee on November 21, 2019. Following discussion, on MOTION by Swan, seconded by Reinhart, and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A 4-FOR-1 PILOT EXCHANGE LETTER AGREEMENT AND A SIDE AGREEMENT TO COMPENSATE MOJAVE WATER AGENCY FOR THE WATER DELIVERED INTO STORAGE THAT INCORPORATES THE PROPOSED EXCHANGE AND COMPENSATION TERMS, BOTH AGREEMENTS SUBJECT TO SUBSTANTIVE CHANGES APPROVED BY THE SUPPLY RELIABILITY PROGRAMS COMMITTEE OR SUBJECT TO NON-SUBSTANTIVE CHANGES.**

#### AMENDMENTS TO LANDOWNER AND PLANNING AGREEMENTS FOR COMPLIANCE WITH SUSTAINABLE GROUNDWATER MANAGEMENT ACT

General Manager Cook reported that in 2017, the Kern Groundwater Authority (KGA) was formed in pursuit of compliance with the requirements of the Sustainable Groundwater Management Act (SGMA). Rosedale-Rio Bravo Water Storage District is a member of KGA and has prepared a draft chapter of KGA's Groundwater Sustainability Plan (GSP) that will cover Rosedale's service area.

Engineer Bennett reported that in March 2019, the IRWD Board approved two agreements with Rosedale: 1) a Landowner Agreement that would provide SGMA coverage for IRWD's Kern County water banking properties by incorporation into Rosedale's chapter of the GSP,

and 2) a Planning Agreement that would limit IRWD from selected parts of the Landowner Agreement. Mr. Bennett said that due to recent jurisdictional changes in Kern County, KGA is requesting that all undistricted landowners execute Amendment No. 1 to the Landowner Agreement that will increase the landowners' indemnity obligations and limit their ability to contest the actions of agencies with jurisdiction.

Mr. Bennett said that in April 2019, the County of Kern withdrew from its responsibility over the undistricted areas. In response to this withdrawal, the Kern County Water Agency (KCWA) agreed to be the jurisdictional authority for undistricted lands within Kern County. In accepting this authority, KCWA is requiring that all members of KGA, including owners of undistricted lands that have signed the Landowner Agreement, provide additional indemnifications and a covenant not to sue or contest. Mr. Bennett said that in September 2019, staff reviewed with the Supply Reliability Programs Committee and the Board a proposed replacement to the original Landowner Agreement that would accommodate KCWA's requirement. Since that time, KGA has decided to amend rather than replace the Landowner Agreement. At the request of various undistricted landowners including IRWD, KGA, and Rosedale, the proposed Amendment No. 1 to the Landowner Agreement includes the following provisions: 1) a limit to the indemnifications and covenant not to sue; 2) a revision that specifies when a landowner can withdraw from the GSP; and 3) the ability to terminate the agreement in the event of adjudication.

Mr. Bennett said that to provide consistency with Amendment No. 1 to the Landowner Agreement, legal counsel drafted the First Amended Planning Agreement to replace the original Planning Agreement and reference both the original and amended Landowner Agreements. As Rosedale has stated that the finalization and execution of the Amendment No. 1 to the Landowner Agreement is time sensitive, he said that staff recommends that the Board authorize the General Manager to execute Amendment No. 1 to the Landowner Agreement and the First Amended Planning Agreement subject to substantive changes approved by IRWD's legal counsel and the Supply Reliability Programs Committee or subject to non-substantive changes.

Director Swan reported that this item was reviewed by the Supply Reliability Programs Committee on November 21, 2019. On MOTION by Swan, seconded by Reinhart, and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE AMENDMENT NO. 1 TO THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT MANAGEMENT AGREEMENT WITH ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT AND THE FIRST AMENDED GROUNDWATER SUSTAINABILITY PLANNING AGREEMENT BETWEEN ROSEDALE RIO BRAVO WATER STORAGE DISTRICT AND IRVINE RANCH WATER DISTRICT, SUBJECT TO SUBSTANTIVE CHANGES APPROVED BY IRWD'S LEGAL COUNSEL AND THE SUPPLY RELIABILITY PROGRAMS COMMITTEE OR SUBJECT TO NON-SUBSTANTIVE CHANGES.**

GENERAL MANAGER’S REPORT

General Manager Cook reported that the District received the 2019 Sustainable and Green Development award for the IRWD WaterStar Program from the Orange County Business Council. Additionally, he said the District received an award from the Orange County Transportation Authority for participation in the Orange County Van Pool program for more than 10 years.

DIRECTORS’ COMMENTS

Director Reinhart reported on his attendance at an Irvine Exchange Club Thanksgiving breakfast.

Director Withers reported that he attended his regular meetings.

Director Swan reported on his attendance at a WACO monthly meeting, a WACO Planning Committee meeting, an OCWA Monthly Industry Insight meeting and luncheon, Newport Chamber of Commerce meetings, and Mr. William Woollett, former City of Irvine’s City Manager’s celebration of life.

Director Matheis reported on her attendance at the OCBC Turning the Red Tape in to Red Carpet awards event, and an Irvine Exchange Club Thanksgiving breakfast.

COMMUNITY UPDATE:

Consultant Bruce Newell said that he did not have any updates this evening.

ADJOURNMENT:

There being no further business, President LaMar adjourned the meeting.

APPROVED and SIGNED this 16th day of December, 2019.

\_\_\_\_\_  
President, IRVINE RANCH WATER DISTRICT

\_\_\_\_\_  
Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

\_\_\_\_\_  
Claire Hervey Collins, Legal Counsel  
Lewis Brisbois

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December 16, 2019

Prepared by: J. Davis / T. Fournier

Submitted by: R. Jacobson / C. Clary

Approved by: Paul A. Cook

## CONSENT CALENDAR

### NOVEMBER 2019 TREASURY REPORT

#### SUMMARY:

The following is submitted for the Board's information and approval:

- A. The November 2019 Investment Summary Report. This Investment Summary Report conforms with the 2019 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Summary of Fixed and Variable Debt as of November 30, 2019, as outlined in Exhibit "B".
- C. The Monthly Interest Rate Swap Summary as of November 30, 2019, as outlined in Exhibit "C".
- D. The November 30, 2019 Disbursement Summary of warrants 403541 through 404224, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$19,202,582 as outlined in Exhibit "D".
- E. The Summary of Payroll ACH payments in the total amount of \$2,358,411 as outlined in Exhibit "E".
- F. The Disclosure Report of Reimbursements to Board Members and Staff for November 2019, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "F".

#### FISCAL IMPACTS:

As of November 30, 2019, the book value of the investment portfolio was \$349,232,777, with a 2.18% rate of return and a market value of \$350,642,452. Based on the District's September 30, 2019 quarterly real estate investment rate of return of 9.15%, the weighted average return for the fixed income and real estate investments was 4.39%.

As of November 30, 2019, the outstanding principal amount of fixed and variable rate debt was \$659,425,000. The monthly weighted average all-in variable rate was 1.14%. Including the District's weighted average fixed rate bond issues of 3.69% and the previous month's negative cash accruals from fixed payer interest rate swaps, which hedge a portion of the District's variable rate debt, the total average debt rate was 3.03%.

Payroll ACH payments totaled \$2,358,411, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for November totaled \$19,202,582.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was not submitted to a Committee; however, the investment and debt reports are submitted to the Finance and Personnel Committee on a monthly basis.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE SUMMARY OF FIXED AND VARIABLE RATE DEBT, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE NOVEMBER 2019 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$2,358,411; AND APPROVE THE NOVEMBER 2019 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 403541 THROUGH 404224 WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$19,202,582.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Summary of Fixed and Variable Debt

Exhibit "C" – Monthly Interest Rate Swap Summary

Exhibit "D" – Monthly Summary of District Disbursements

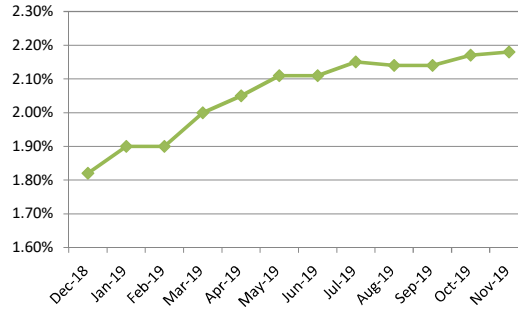
Exhibit "E" – Monthly Payroll ACH Summary

Exhibit "F" – Disclosure of Reimbursements to Board Members and Staff

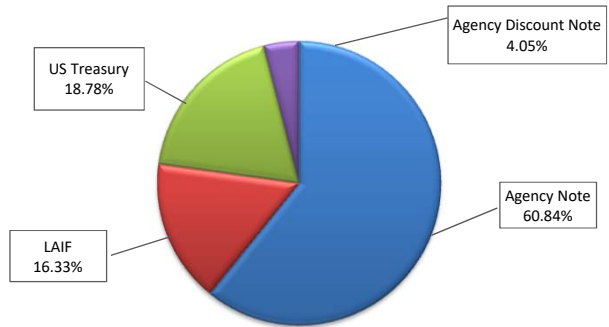


Exhibit "A"  
**Irvine Ranch Water District  
Investment Portfolio Summary  
November 2019**

**Monthly Fixed Income Yield**



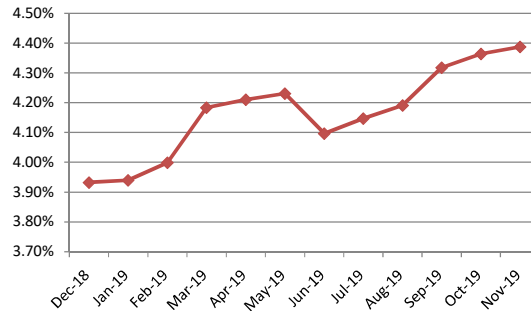
**Portfolio Distribution**



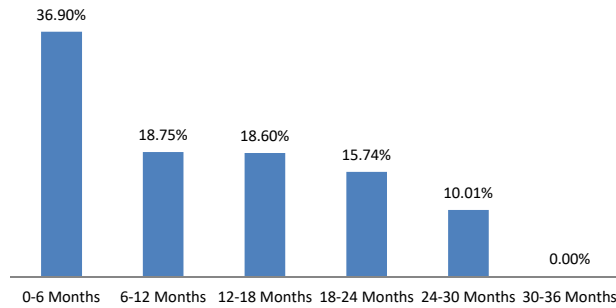
**Investment Summary**

Type	PAR	Book Value	Market Value
Agency Note	195,550,000	195,411,914	196,124,699
US Treasury	80,000,000	79,821,955	80,414,325
LAIF	64,000,000	64,000,000	64,105,140
Agency Discount Note	10,000,000	9,998,908	9,998,288
<b>Grand Total</b>	<b>349,550,000</b>	<b>349,232,777</b>	<b>350,642,452</b>

**Weighted Average Return  
Including Real Estate Portfolio**



**Maturity Distribution**



**Top Issuers**

Issuer	PAR	% Portfolio
US Treasury	80,000,000	22.89%
Fed Farm Credit Bank	70,000,000	20.03%
State of California Treasury - LAIF	64,000,000	18.31%
Fed Home Loan Mortgage Corp	55,000,000	15.73%
Fed Natl Mortgage Assoc	46,550,000	13.31%
Fed Home Loan Bank	34,000,000	9.73%
<b>Grand Total</b>	<b>349,550,000</b>	<b>100.00%</b>

IRVINE RANCH WATER DISTRICT  
INVESTMENT SUMMARY REPORT

11/30/19

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE <sup>(1)</sup> 11/30/2019	UNREALIZED <sup>(2)</sup> GAIN/(LOSS)
08/23/17			12/01/19		LAIF	State of California Tsy.	\$64,000,000		2.250%	\$64,000,000.00	\$64,000,000.00	64,105,140.29	105,140.29
11/27/19	NA	NA	12/02/19	NR	FNMA - Discount Note	Fed Natl Mortgage Assoc	6,000,000	1.430%	1.450%	5,998,808.34	5,999,761.67	5,998,808.34	(953.33)
09/18/19	NA	NA	12/05/19	NR	FHLB - Discount Note	Fed Home Loan Bank	4,000,000	1.920%	1.955%	3,983,360.00	3,999,146.67	3,999,480.00	333.33
12/12/16	NA	NA	12/12/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.450%	1.440%	5,001,450.00	5,000,013.25	4,999,700.00	(313.25)
12/21/16	NA	NA	12/19/19	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.500%	1.621%	4,982,350.00	4,999,709.33	4,999,750.00	40.67
12/20/17	NA	NA	01/17/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.500%	1.932%	4,956,250.00	4,991,400.07	4,999,000.00	7,599.93
10/16/17	NA	NA	02/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	1.612%	4,987,025.00	4,998,665.00	4,997,650.00	(1,015.00)
12/19/18	NA	NA	02/29/20	Aaa/NR/AAA	Treasury - Note	US Treasury	10,000,000	1.250%	2.672%	9,833,593.76	9,960,778.39	9,988,300.00	27,521.61
12/20/17	NA	NA	03/13/20	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	4.125%	1.940%	5,237,200.00	5,059,737.10	5,034,950.00	(24,787.10)
12/20/18	NA	NA	03/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	10,000,000	2.250%	2.665%	9,948,000.00	9,985,190.58	10,018,000.00	32,809.42
10/03/17	NA	NA	04/20/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.375%	1.630%	4,968,350.00	4,995,201.45	4,994,050.00	(1,151.45)
06/29/18	NA	NA	04/23/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.500%	2.544%	4,996,000.00	4,999,229.81	5,018,250.00	19,020.19
06/29/18	NA	NA	05/15/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.550%	2.566%	4,998,450.00	4,999,624.93	5,021,600.00	21,975.07
11/21/17	Continuous after	02/20/18	05/20/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.830%	1.930%	4,987,500.00	4,992,795.81	5,000,100.00	7,304.19
06/11/18	NA	NA	06/11/20	Aaa/NR/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.550%	2.570%	4,997,100.00	4,999,234.34	5,019,800.00	20,565.66
11/10/17	NA	NA	06/22/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	1.750%	4,968,000.00	4,997,804.61	4,995,200.00	(2,604.61)
04/19/18	NA	NA	07/30/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	2.535%	4,886,000.00	4,966,881.15	4,994,900.00	28,018.85
06/08/18	NA	NA	07/30/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.500%	2.559%	4,890,100.00	4,966,033.46	4,994,900.00	28,866.54
12/20/17	Quarterly	11/10/16	08/10/20	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.450%	2.052%	4,923,000.00	4,971,644.19	4,992,050.00	20,405.81
09/14/18	NA	NA	08/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.680%	2.789%	4,989,700.00	4,996,126.62	5,037,500.00	41,373.38
05/21/18	Continuous after	12/01/17	09/01/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.680%	2.735%	4,884,250.00	4,961,833.03	5,000,000.00	38,166.97
09/14/18	NA	NA	09/04/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.690%	2.794%	4,990,050.00	4,996,163.52	5,039,350.00	43,186.48
12/12/17	One Time	09/28/18	09/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	2.000%	2.000%	5,000,000.00	5,000,000.00	5,009,400.00	9,400.00
10/31/17	One Time	10/30/18	10/30/20	Aaa/NR/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,550,000	1.850%	1.850%	5,550,000.00	5,550,000.00	5,551,498.50	1,498.50
09/28/18	NA	NA	10/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.750%	2.847%	4,889,453.13	4,827,379.04	5,002,750.00	175,370.96
12/13/17	Continuous after	08/23/17	11/23/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.770%	2.060%	4,958,750.00	4,982,096.89	4,987,050.00	4,953.11
11/30/17	NA	NA	11/24/20	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.850%	1.964%	4,983,550.00	4,994,582.06	5,009,750.00	15,167.94
12/20/17	NA	NA	12/28/20	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.875%	2.023%	4,978,400.00	4,990,315.22	5,011,550.00	21,234.78
11/09/18	NA	NA	12/31/20	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.375%	2.958%	4,939,843.75	4,969,576.15	5,035,350.00	65,773.85
10/12/18	NA	NA	01/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	10,000,000	1.375%	2.890%	9,664,843.76	9,830,033.59	9,962,500.00	132,466.41
12/14/18	NA	NA	02/16/21	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.375%	2.806%	4,954,750.00	4,973,760.69	5,044,600.00	70,839.31
12/14/18	NA	NA	02/28/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.000%	2.755%	4,919,515.95	4,952,826.57	5,018,150.00	65,323.43
02/12/19	NA	NA	03/12/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	2.500%	2.516%	9,996,500.00	9,997,846.51	10,099,200.00	101,353.49
02/25/19	NA	NA	03/12/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.375%	2.549%	4,982,700.00	4,989,170.11	5,044,350.00	55,179.89
06/17/19	NA	NA	03/17/21	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.950%	1.938%	5,001,050.00	5,000,775.59	5,018,600.00	17,824.41
06/14/19	NA	NA	04/30/21	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.750%	1.913%	4,985,000.00	4,988,717.20	5,008,750.00	20,032.80
09/13/19	NA	NA	05/15/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.625%	1.757%	5,071,093.75	5,061,886.53	5,067,200.00	5,313.47

IRVINE RANCH WATER DISTRICT  
INVESTMENT SUMMARY REPORT

11/30/19

SETTLMT	Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	ORIGINAL COST	CARRY VALUE	MARKET VALUE <sup>(1)</sup> 11/30/2019	UNREALIZED <sup>(2)</sup> GAIN/(LOSS)
09/18/19	NA	NA	06/11/21	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.250%	1.786%	5,039,300.00	5,034,698.42	5,042,400.00	7,701.58
07/26/19	NA	NA	07/19/21	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.875%	1.927%	4,995,000.00	4,995,883.98	5,017,550.00	21,666.02
08/01/19	NA	NA	08/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	1.125%	1.816%	4,929,687.50	4,940,959.67	4,953,300.00	12,340.33
09/27/19	Quarterly	03/27/20	09/27/21	NA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.000%	2.000%	5,000,000.00	5,000,000.00	4,997,950.00	(2,050.00)
10/02/19	Quarterly	12/30/19	09/30/21	Aaa/NA/NR	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	2.000%	2.000%	10,000,000.00	10,000,000.00	9,969,900.00	(30,100.00)
10/11/19	NA	NA	10/15/21	Aaa/AA+/NR	Treasury - Note	US Treasury	5,000,000	2.875%	1.540%	5,131,640.63	5,122,506.38	5,111,700.00	(10,806.38)
10/15/19	Quarterly	01/15/19	10/15/21	Aaa/NA/NR	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	2.000%	2.000%	10,000,000.00	10,000,000.00	9,987,600.00	(12,400.00)
10/22/19	NA	NA	10/15/21	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.400%	1.642%	4,976,500.00	4,977,798.34	4,976,950.00	(848.34)
11/05/19	NA	NA	11/15/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.875%	1.610%	5,125,585.94	5,121,179.42	5,117,800.00	(3,379.42)
11/08/19	NA	NA	11/30/21	Aaa/AA+/NR	Treasury - Note	US Treasury	5,000,000	1.750%	1.680%	5,007,031.25	5,006,816.48	5,011,350.00	4,533.52
11/25/19	NA	NA	12/31/21	Aaa/NR/AAA	Treasury - Note	US Treasury	5,000,000	2.000%	1.619%	5,039,062.50	5,038,756.93	5,037,300.00	(1,456.93)
11/25/19	NA	NA	01/13/22	Aaa/NA/NR	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	2.375%	1.635%	5,077,250.00	5,076,655.77	5,074,200.00	(2,455.77)
03/08/19	NA	NA	01/15/22	Aaa/AA+/NR	Treasury - Note	US Treasury	5,000,000	2.500%	2.460%	5,005,468.75	5,004,064.89	5,090,625.00	86,560.11
03/21/19	NA	NA	02/03/22	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	2.030%	2.361%	4,954,350.00	4,965,436.43	5,041,650.00	76,213.57
03/08/19	NA	NA	03/11/22	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	2.500%	2.549%	5,002,750.00	5,002,079.39	5,093,000.00	90,920.61
<b>TOTAL INVESTMENTS</b>							<b>\$349,550,000</b>			<b>\$348,565,614.01</b>	<b>\$349,232,777.24</b>	<b>\$350,642,452.13</b>	<b>\$1,409,674.89</b>

Petty Cash 3,400.00  
 Ck Balance Bank of America 273,413.00  
\$348,842,427.01

<sup>(1)</sup> LAIF market value is as of the most recent quarter-end as reported by LAIF. Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing. <sup>(2)</sup> Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers <sup>(3)</sup> Real estate rate of return is based on most recent quarter end return	Outstanding Variable Rate Debt \$262,300,000 Net Outstanding Variable Rate Debt (Less \$60 million fixed-payer swaps) \$202,300,000 Investment Balance: \$348,842,427 Investment to Variable Rate Debt Ratio: 172% Portfolio - Average Number of Days To Maturity 321															
	<table border="1"> <thead> <tr> <th></th> <th>Investment Portfolio</th> <th>Real Estate<sup>(3)</sup> Portfolio</th> <th>Weighted Avg. Return</th> </tr> </thead> <tbody> <tr> <td>November</td> <td>2.18%</td> <td>9.15%</td> <td>4.39%</td> </tr> <tr> <td>October</td> <td>2.17%</td> <td>9.15%</td> <td>4.36%</td> </tr> <tr> <td>Change</td> <td>0.01%</td> <td></td> <td>0.03%</td> </tr> </tbody> </table>		Investment Portfolio	Real Estate <sup>(3)</sup> Portfolio	Weighted Avg. Return	November	2.18%	9.15%	4.39%	October	2.17%	9.15%	4.36%	Change	0.01%	
	Investment Portfolio	Real Estate <sup>(3)</sup> Portfolio	Weighted Avg. Return													
November	2.18%	9.15%	4.39%													
October	2.17%	9.15%	4.36%													
Change	0.01%		0.03%													
This Investment Summary Report is in conformity with the 2019 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures. *S - Step up																

IRVINE RANCH WATER DISTRICT  
SUMMARY OF MATURITIES

11/30/19

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	US Treasury
11/19	\$64,000,000	18.31%	\$64,000,000				
12/19	20,000,000	5.72%		10,000,000	10,000,000		
01/20	5,000,000	1.43%		5,000,000			
02/20	15,000,000	4.29%		5,000,000			10,000,000
03/20	15,000,000	4.29%		5,000,000			10,000,000
04/20	10,000,000	2.86%		10,000,000			
05/20	10,000,000	2.86%		10,000,000			
06/20	10,000,000	2.86%		10,000,000			
07/20	10,000,000	2.86%		10,000,000			
08/20	10,000,000	2.86%		10,000,000			
09/20	15,000,000	4.29%		15,000,000			
10/20	10,550,000	3.02%		5,550,000			5,000,000
<b>SUB-TOTAL</b>	<b>\$194,550,000</b>	<b>55.66%</b>	<b>\$64,000,000</b>	<b>\$95,550,000</b>	<b>\$10,000,000</b>		<b>\$25,000,000</b>
<b>13 Months - 3 YEARS</b>							
11/01/2020 - 1/31/2021	30,000,000	8.58%		15,000,000			15,000,000
2/01/2021 -04/30/2021	35,000,000	10.01%		30,000,000			5,000,000
05/01/2021 -7/31/2021	15,000,000	4.29%		10,000,000			5,000,000
08/01/2021 - 10/31/2021	40,000,000	11.44%		30,000,000			10,000,000
11/01/2021 - 1/31/2022	25,000,000	7.15%		5,000,000			20,000,000
2/01/2022 -4/30/2022	10,000,000	2.86%		10,000,000			
	-						
	-						
	-						
<b>TOTALS</b>	<b>\$349,550,000</b>	<b>100.00%</b>	<b>\$64,000,000</b>	<b>\$195,550,000</b>	<b>\$10,000,000</b>		<b>\$80,000,000</b>

% OF PORTFOLIO

18.31%

55.94%

2.86%

22.89%

Irvine Ranch Water District  
Summary of Real Estate - Income Producing Investments  
9/30/2019

	ACQUISITION DATE	PROPERTY TYPE	OWNERSHIP INTEREST	ORIGINAL COST	MARKET VALUE 9/30/2019	ANNUALIZED RATE OF RETURN QUARTER ENDED 9/30/2019
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	\$ 148,625,000	20.15%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	\$ 28,710,327	8.50%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	\$ 11,730,000	9.29%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	\$ 9,180,000	6.64%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	\$ 11,220,000	9.08%
<b>Total - Income Properties</b>				<b>\$ 72,569,826</b>	<b>\$ 209,465,327</b>	<b>15.40%</b>
<b>OTHER REAL ESTATE DESCRIPTION</b>						
Serrano Summit - Promissory Note	Sep-17	NA	NA	\$ 88,128,000	\$ 88,128,000	4.00%
<b>Total - Income Producing Real Estate Investments</b>				<b>\$ 160,697,826</b>	<b>\$ 297,593,327</b>	<b>9.15%</b>

**IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT**  
**INVESTMENT ACTIVITY**  
**Nov-19**

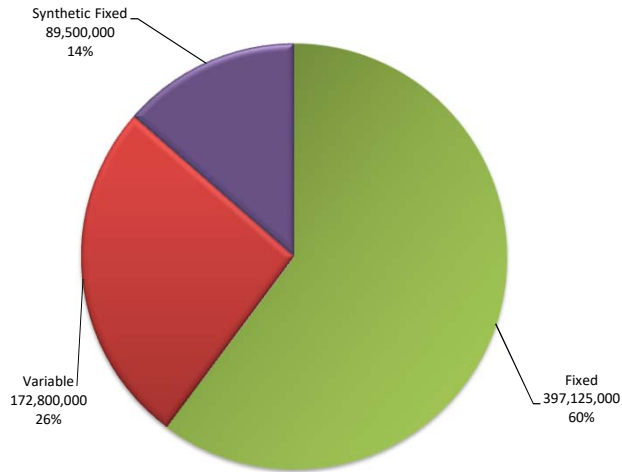
**MATURITIES/SALES/CALLS**

**PURCHASES**

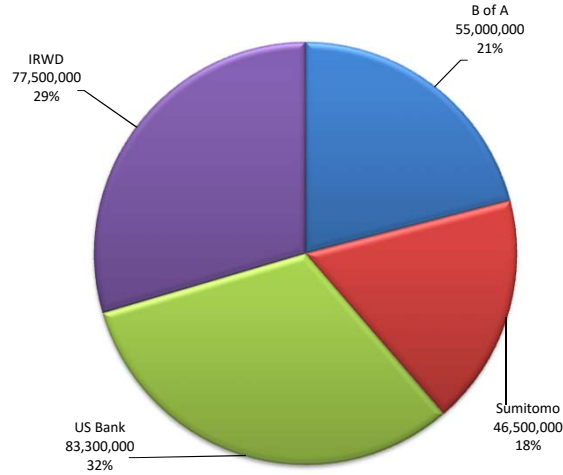
DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
11/5/2019	FHLB - Discount Note	\$5,000,000	2.18%	11/5/2019	11/15/2021	US Treasury Note	\$5,000,000	1.61%
11/15/2019	FHLB - Note	\$5,000,000	1.44%	11/25/2019	12/31/2021	US Treasury Note	\$5,000,000	1.63%
11/25/2019	FNMA - Note	\$5,000,000	1.50%	11/25/2019	1/13/2022	FHLMC - Note	\$5,000,000	1.64%
11/25/2019	FNMA - Note	\$5,000,000	2.02%	11/27/2019	12/2/2019	FNMA - Discount Note	\$6,000,000	1.45%

Exhibit "B"  
**Irvine Ranch Water District**  
**Summary of Fixed and Variable Rate Debt**  
**November 2019**

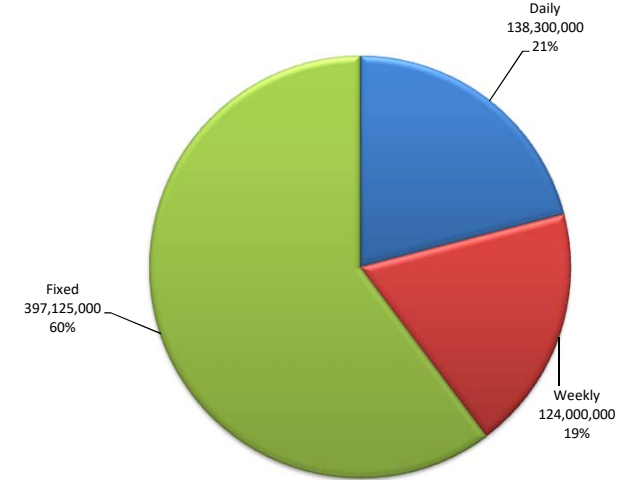
**Current Debt Mix By Type**



**Letters of Credit / Support**



**Current Debt Rate Reset**



**Outstanding Par by Series**

Series	Issue Date	Maturity Date	Remaining Principal	Percent	Letter of Credit/Support	Rmkt Agent	Mode	Reset
Series 1993	05/19/93	04/01/33	\$28,300,000	4.29%	US Bank	BAML	Variable	Daily
Series 2008-A Refunding	04/24/08	07/01/35	\$46,500,000	7.05%	Sumitomo	BAML	Variable	Weekly
Series 2011-A-1 Refunding	04/15/11	10/01/37	\$46,500,000	7.05%	IRWD	Goldman	Variable	Weekly
Series 2011-A-2 Refunding	04/15/11	10/01/37	\$31,000,000	4.70%	IRWD	Goldman	Variable	Weekly
Series 2009 - A	06/04/09	10/01/41	\$55,000,000	8.34%	US Bank	US Bank	Variable	Daily
Series 2009 - B	06/04/09	10/01/41	\$55,000,000	8.34%	B of A	Goldman	Variable	Daily
2010 Refunding COPS	02/23/10	03/01/20	\$1,980,000	0.30%	N/A	N/A	Fixed	Fixed
2016 COPS	09/01/16	03/01/46	\$116,745,000	17.70%	N/A	N/A	Fixed	Fixed
2010 Build America Taxable Bond	12/16/10	05/01/40	\$175,000,000	26.54%	N/A	N/A	Fixed	Fixed
Series 2016	10/12/16	02/01/46	\$103,400,000	15.68%	N/A	N/A	Fixed	Fixed
<b>Total</b>			<b>\$659,425,000</b>	<b>100.00%</b>				

**IRVINE RANCH WATER DISTRICT**  
**SUMMARY OF FIXED & VARIABLE RATE DEBT**

November-19

<b>ITN</b>
Daily
<b>Weekly</b>

GENERAL BOND INFORMATION							LETTER OF CREDIT INFORMATION										TRUSTEE INFORMATION														
VARIABLE RATE ISSUES	Issue Date	Maturity Date	Principal Payment Date	Payment Date	Original Par Amount	Remaining Principal	Letter of Credit	Reimbursement Agreement Date	L/C Exp. Date	MOODY'S	S&P	FITCH	LOC Stated Amount	LOC Fee	Annual LOC Cost	Rmkt Agent	Reset	Rmkt Fees	Annual Cost	Trustee											
SERIES 1993	05/19/93	04/01/33	Apr 1	5th Bus. Day	\$38,300,000	\$28,300,000	US BANK	05/07/15	12/15/21	Aa3/VMIG1	AA-/A-1+	N/R	\$28,681,468	0.3300%	\$94,649	BAML	DAILY	0.10%	\$28,300	BANK OF NY											
SERIES 2008-A Refunding	04/24/08	07/01/35	Jul 1	5th Bus. Day	\$60,215,000	\$46,500,000	SUMITOMO	04/01/11	07/21/21	A1/P-1	A/A-1	A/F1	\$47,187,945	0.3150%	\$148,642	BAML	WED	0.07%	\$32,550	BANK OF NY											
SERIES 2011-A-1 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$60,545,000	\$46,500,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$58,125	BANK OF NY											
SERIES 2011-A-2 Refunding	04/15/11	10/01/37	Oct 1	1st Bus. Day	\$40,370,000	\$31,000,000	N/A	N/A	N/A	Aa1/VMIG1	A-1+	AAA/F1+	N/A	N/A	N/A	Goldman	WED	0.13%	\$38,750	BANK OF NY											
SERIES 2009 - A	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$55,000,000	US BANK	04/01/11	12/15/21	Aa2/VMIG 1	AA-/A-1+	AA/F1+	\$55,614,795	0.3300%	\$183,529	US Bank	DAILY	0.07%	\$38,500	US BANK											
SERIES 2009 - B	06/04/09	10/01/41	Oct 1	1st Bus. Day	\$75,000,000	\$55,000,000	B of A	04/01/11	05/16/22	Aa2/VMIG 1	A/A-1	A1/F1+	\$55,614,795	0.3000%	\$166,844	Goldman	DAILY	0.10%	\$55,000	US BANK											
<b>\$349,430,000</b>						<b>\$262,300,000</b>						<b>SUB-TOTAL VARIABLE RATE DEBT</b>					<b>\$187,099,003</b>					<b>0.3173%</b>					<b>\$593,664</b>				
															(Wt. Avg)					<b>0.10%</b>					<b>\$251,225</b>						
															(Wt. Avg)										(Wt. Avg)						
FIXED RATE ISSUES																															
2010 REFUNDING COPS	02/23/10	03/01/20	Mar 1	Mar/Sept	\$85,145,000	\$1,980,000	N/A	N/A	N/A	Aa1	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY										
2010 GO Build America Taxable Bonds	12/16/10	05/01/40	May (2025)	May/Nov	\$175,000,000	\$175,000,000	N/A	N/A	N/A	Aa1	AAA	NR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK										
2016 COPS	09/01/16	03/01/46	Mar (2021)	Mar/Sept	\$116,745,000	\$116,745,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US BANK										
SERIES 2016	10/12/16	02/01/46	Feb (2022)	Feb/Aug	\$103,400,000	\$103,400,000	N/A	N/A	N/A	NR	AAA	AAA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BANK OF NY										
<b>\$480,290,000</b>						<b>\$397,125,000</b>						<b>SUB-TOTAL FIXED RATE DEBT</b>																			
<b>\$829,720,000</b>						<b>\$659,425,000</b>						<b>TOTAL- FIXED &amp; VARIABLE RATE DEBT</b>																			

Remarketing Agents			GO VS COP's		
Goldman	132,500,000	51%	GO:	540,700,000	82%
BAML	74,800,000	29%	COPS:	118,725,000	18%
US Bank	55,000,000	21%	Total	<u>659,425,000</u>	
	<u>262,300,000</u>				

LOC Banks		Breakdown Between Variable & Fixed Rate Mode	
SUMITOMO	46,500,000	Daily Issues	138,300,000 21%
BANK OF AMERICA	55,000,000	Weekly Issues	46,500,000 7%
US BANK	83,300,000	ITN Issues	77,500,000 12%
	<u>184,800,000</u>	Sub-Total	<u>262,300,000</u>
		Fixed Rate Issues	\$397,125,000 60%
		Sub-Total - Fixed	<u>397,125,000</u>
		TOTAL DEBT	
		FIXED & VAR.	<u>659,425,000</u> 100%



IRVINE RANCH WATER DISTRICT  
SUMMARY OF DEBT RATES  
Nov-19

Rmkt Agent Mode	GOLDMAN DAILY	GOLDMAN WEEKLY	GOLDMAN WEEKLY	MERRILL LYNCH DAILY	MERRILL LYNCH WEEKLY	US BANK DAILY
Bond Issue	2009 - B	2011 A-1	2011 A-2	1993	2008-A	2009-A
Par Amount	55,000,000	46,500,000	31,000,000	28,300,000	46,500,000	55,000,000
Bank	BOFA	(SIFMA -1)	(SIFMA -1)	US BANK	Sumitomo	US BANK
Reset		Wednesday	Wednesday		Wednesday	
11/1/2019	0.82%	1.11%	1.11%	0.88%	0.87%	0.85%
11/2/2019	0.82%	1.11%	1.11%	0.88%	0.87%	0.85%
11/3/2019	0.82%	1.11%	1.11%	0.88%	0.87%	0.85%
11/4/2019	0.78%	1.11%	1.11%	0.75%	0.87%	0.84%
11/5/2019	0.70%	1.11%	1.11%	0.74%	0.87%	0.74%
11/6/2019	0.68%	1.11%	1.11%	0.71%	0.87%	0.73%
11/7/2019	0.67%	1.08%	1.08%	0.69%	0.83%	0.70%
11/8/2019	0.67%	1.08%	1.08%	0.73%	0.83%	0.69%
11/9/2019	0.67%	1.08%	1.08%	0.73%	0.83%	0.69%
11/10/2019	0.67%	1.08%	1.08%	0.73%	0.83%	0.69%
11/11/2019	0.67%	1.08%	1.08%	0.73%	0.83%	0.69%
11/12/2019	0.67%	1.08%	1.08%	0.75%	0.83%	0.72%
11/13/2019	0.67%	1.08%	1.08%	0.73%	0.83%	0.69%
11/14/2019	0.68%	1.11%	1.11%	0.73%	0.83%	0.70%
11/15/2019	0.70%	1.11%	1.11%	0.73%	0.83%	0.68%
11/16/2019	0.70%	1.11%	1.11%	0.73%	0.83%	0.68%
11/17/2019	0.70%	1.11%	1.11%	0.73%	0.83%	0.68%
11/18/2019	0.55%	1.11%	1.11%	0.64%	0.83%	0.66%
11/19/2019	0.50%	1.11%	1.11%	0.59%	0.83%	0.58%
11/20/2019	0.50%	1.11%	1.11%	0.59%	0.83%	0.54%
11/21/2019	0.55%	1.06%	1.06%	0.57%	0.75%	0.60%
11/22/2019	0.60%	1.06%	1.06%	0.63%	0.75%	0.60%
11/23/2019	0.60%	1.06%	1.06%	0.63%	0.75%	0.60%
11/24/2019	0.60%	1.06%	1.06%	0.63%	0.75%	0.60%
11/25/2019	0.63%	1.06%	1.06%	0.66%	0.75%	0.65%
11/26/2019	0.63%	1.06%	1.06%	0.65%	0.75%	0.65%
11/27/2019	0.63%	1.06%	1.06%	0.66%	0.75%	0.63%
11/28/2019	0.63%	1.09%	1.09%	0.66%	0.77%	0.63%
11/29/2019	0.63%	1.09%	1.09%	0.65%	0.77%	0.63%
11/30/2019	0.63%	1.09%	1.09%	0.65%	0.77%	0.63%
Avg Interest Rates	0.66%	1.09%	1.09%	0.70%	0.81%	0.68%
Rmkt Fee	0.10%	0.13%	0.13%	0.10%	0.07%	0.07%
LOC Fee	0.30%			0.33%	0.32%	0.33%
<b>All-In Rate</b>	<b>1.06%</b>	<b>1.21%</b>	<b>1.21%</b>	<b>1.13%</b>	<b>1.20%</b>	<b>1.08%</b>
Par Amount	101,500,000		31,000,000	74,800,000		55,000,000

Interest Rate Mode	Percent of Total Variable Rate Debt	Par Outstanding	Weighted All-In Average Rate	Base Rate Average
Daily	52.73%	138,300,000	1.08%	0.68%
Weekly	47.27%	124,000,000	1.21%	0.99%
	100.00%	<b>\$ 262,300,000</b>	1.14%	0.82%
<b>Fixed</b>				
COPS 2010	0.50%	1,980,000	3.82%	
COPS 2016	29.40%	116,745,000	2.90%	
BABS 2010	44.07%	175,000,000	4.44%	(1)
SERIES 2016	26.04%	103,400,000	3.32%	
	100.00%	<b>\$ 397,125,000</b>	3.69%	
<b>All-In Debt Rate Including \$60 Million Notional Amount of Swaps</b>				<b>3.03%</b>

(1) Rate adjusted up from 4.35% as a result of sequestration reducing BAB's subsidy by 5.9%

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**IRVINE RANCH WATER DISTRICT  
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL  
November 30, 2019**

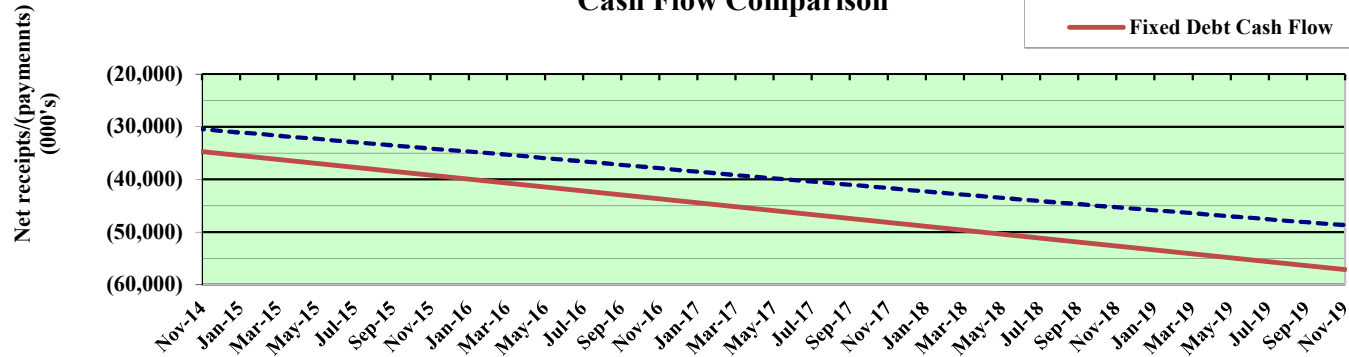
<b>LIBOR Avg %</b>	<b>Prior Mo.</b>	<b>Current Mo.</b>	<b>12-Mo Avg</b>
	1.88%	1.74%	2.29%

Current Fiscal Year Active Swaps								Cash Flow				(Since 3/07)	Mark to Market	
Effective Date	Maturity Date	Years to Maturity	Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Net Accrual	Current Mark to Market	Notional Difference	
<b>Fixed Payer Swaps - By Effective Date</b>														
3/10/2007	3/10/2029	9.3	ML	30,000,000	FXP	LIBOR	5.687%	(95,911)	(88,705)	(416,809)	(17,262,536)	19,273,085	(10,726,915)	
3/10/2007	3/10/2029	9.3	CG	30,000,000	FXP	LIBOR	5.687%	(95,911)	(88,705)	(416,809)	(17,262,536)	19,289,300	(10,710,700)	
<b>Totals/Weighted Avgs</b>				<b>9.3</b>	<b>\$ 60,000,000</b>		<b>5.687%</b>	<b>\$ (191,822)</b>	<b>\$ (177,410)</b>	<b>\$ (833,618)</b>	<b>\$ (34,525,071)</b>	<b>\$ 38,562,385</b>	<b>\$ (21,437,615)</b>	
<b>Total Current Year Active Swaps</b>				<b>\$ 60,000,000</b>				<b>\$ (191,822)</b>	<b>\$ (177,410)</b>	<b>\$ (833,618)</b>	<b>\$ (34,525,071)</b>	<b>\$ 38,562,385</b>	<b>\$ (21,437,615)</b>	

Current Fiscal Year Terminated Swaps								Cash Flow				Mark to Market	
Effective Date	Maturity Date		Counter Party	Notional Amt	Type	Base Index	Fixed Rate	Prior Month	Current Month	Fiscal YTD	Cumulative Net Accrual	Current Mark to Market	Notional Difference
<b>Total Current Year Terminated Swaps</b>								<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
								Prior Month	Current Month	Fiscal YTD	Cumulative Net Accrual	Current Mark to Market	Notional Difference
<b>Total Current Year Active &amp; Terminated Swaps</b>								<b>\$ (191,822)</b>	<b>\$ (177,410)</b>	<b>\$ (833,618)</b>	<b>\$ (34,525,071)</b>	<b>\$ 38,562,385</b>	<b>\$ (21,437,615)</b>

**Interest Rate Swap Portfolio  
Cash Flow Comparison**



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$48,669,550
Fixed Rate =	\$59,724,129
<b>Assumptions:</b>	
- Fixed rate debt issued at 4.93% in Mar-07 (estimated TE rate - Bloomberg)	
- 'Synthetic' includes swap cash flow + interest + fees to date	

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**IRVINE RANCH WATER DISTRICT  
AP DISBURSEMENTS AND VOIDS FOR NOVEMBER 2019**

<b>CHECK OR ELECTRONIC #</b>	<b>SUPPLIERS</b>	<b>PAYMENT DATE</b>	<b>PAYMENT METHOD</b>	<b>PAYMENT AMOUNT</b>	<b>STATUS</b>
403541	JCI JONES CHEMICALS INC	6-Nov-19	IRWD Check	8,701.62	Negotiable
403542	Bennett, Ray R (Ray)	7-Nov-19	IRWD Check	195.96	Reconciled
403543	Chia, David C (David)	7-Nov-19	IRWD Check	124.55	Reconciled
403544	Clary, Cheryl L	7-Nov-19	IRWD Check	17.21	Negotiable
403545	Compton, Christine A	7-Nov-19	IRWD Check	48.18	Negotiable
403546	Craig, Jessica T (Jessica)	7-Nov-19	IRWD Check	966.57	Reconciled
403547	Fabris, John	7-Nov-19	IRWD Check	43.96	Reconciled
403548	Ho, Connie	7-Nov-19	IRWD Check	40.76	Reconciled
403549	Hufana, Mr. Eugenio D II (Gino)	7-Nov-19	IRWD Check	145	Reconciled
403550	Joseph, Brandon	7-Nov-19	IRWD Check	385	Reconciled
403551	Kwon, Andrew	7-Nov-19	IRWD Check	200	Negotiable
403552	Marcacci, Mark	7-Nov-19	IRWD Check	30	Reconciled
403553	Moeder, Jacob J (Jacob)	7-Nov-19	IRWD Check	52.76	Reconciled
403554	Nash, Joel	7-Nov-19	IRWD Check	33.64	Reconciled
403555	Oldewage, Lars D (Lars)	7-Nov-19	IRWD Check	339.22	Reconciled
403556	Palecek, Brianna	7-Nov-19	IRWD Check	9.16	Reconciled
403557	Perez, Jesus J (Jesus)	7-Nov-19	IRWD Check	405	Reconciled
403558	Saini, Mohit	7-Nov-19	IRWD Check	158.33	Reconciled
403559	Seesangrit, Melody M	7-Nov-19	IRWD Check	177.04	Reconciled
403560	Srader, Lisa	7-Nov-19	IRWD Check	70.8	Reconciled
403561	A.J. KIRKWOOD & ASSOCIATES, INC.	7-Nov-19	IRWD Check	76.16	Negotiable
403562	ABM INDUSTRY GROUPS, LLC	7-Nov-19	IRWD Check	17,565.22	Reconciled
403563	ACCUSOURCE, INC.	7-Nov-19	IRWD Check	64	Reconciled
403564	ADS LLC	7-Nov-19	IRWD Check	2,250.00	Reconciled
403565	AECOM TECHNICAL SERVICES, INC.	7-Nov-19	IRWD Check	1,838.75	Reconciled
403566	AIRGAS, INC.	7-Nov-19	IRWD Check	2,278.81	Reconciled
403567	ALEXANDER'S CONTRACT SERVICES, INC.	7-Nov-19	IRWD Check	121,393.91	Reconciled
403568	ALLSTAR PAVING COMPANY, INC.	7-Nov-19	IRWD Check	1,802.67	Reconciled
403569	ALNASERY, NASER	7-Nov-19	IRWD Check	36.38	Negotiable
403570	AMAZON CAPITAL SERVICES, INC.	7-Nov-19	IRWD Check	1,865.22	Reconciled
403571	ANTHEM BLUE CROSS	7-Nov-19	IRWD Check	597.14	Reconciled
403572	ANTHEM BLUE CROSS	7-Nov-19	IRWD Check	234.65	Reconciled
403573	ANTHONY N. LARSEN	7-Nov-19	IRWD Check	450	Reconciled
403574	ASSEMBLED PRODUCTS CORPORATION	7-Nov-19	IRWD Check	1,177.83	Reconciled
403575	AT&T	7-Nov-19	IRWD Check	7,967.78	Reconciled
403576	AUTOZONE PARTS, INC.	7-Nov-19	IRWD Check	99.93	Reconciled
403577	B & K ELECTRIC WHOLESALE	7-Nov-19	IRWD Check	1,015.37	Reconciled
403578	BACKER, CARL S	7-Nov-19	IRWD Check	29.08	Reconciled
403579	BANK OF NEW YORK MELLON TRUST COMPANY NA	7-Nov-19	IRWD Check	2,881.00	Reconciled
403580	BENCHMARK CONTRACTORS, INC.	7-Nov-19	IRWD Check	1,388.33	Negotiable
403581	BIOMERIEUX INC	7-Nov-19	IRWD Check	953.39	Reconciled
403582	BOFA SECURITIES, INC.	7-Nov-19	IRWD Check	15,337.53	Reconciled
403583	BRENNTAG PACIFIC INC	7-Nov-19	IRWD Check	21,713.52	Reconciled
403584	BROOKFIELD HOMES SO. CALIF LLC	7-Nov-19	IRWD Check	180.22	Reconciled
403585	C WELLS PIPELINE MATERIALS INC	7-Nov-19	IRWD Check	100,518.91	Reconciled
403586	CALIFORNIA BANK & TRUST	7-Nov-19	IRWD Check	22,487.92	Reconciled
403587	CALIFORNIA BARRICADE RENTAL, INC.	7-Nov-19	IRWD Check	8,118.75	Reconciled
403588	CANON SOLUTIONS AMERICA, INC.	7-Nov-19	IRWD Check	2,093.44	Reconciled
403589	CAPTIVE AUDIENCE MARKETING INC.	7-Nov-19	IRWD Check	79	Reconciled
403590	CASEY, MOLLY	7-Nov-19	IRWD Check	40.35	Negotiable
403591	CHAIREL CUSTOM HAY, INC.	7-Nov-19	IRWD Check	1,010.46	Reconciled
403592	CHANCE-I USA CORPORATION	7-Nov-19	IRWD Check	52.7	Negotiable
403593	CHEM TECH INTERNATIONAL INC	7-Nov-19	IRWD Check	8,866.50	Reconciled
403594	CHO DESIGN ASSOCIATES, INC	7-Nov-19	IRWD Check	1,600.00	Reconciled
403595	CLARIS STRATEGY INC.	7-Nov-19	IRWD Check	6,925.00	Reconciled
403596	CO, MARY PAULEEN	7-Nov-19	IRWD Check	10.61	Reconciled
403597	CONSORTIUM WEST BUILDERS	7-Nov-19	IRWD Check	1,217.50	Reconciled
403598	CONSTELLATION NEWENERGY, INC.	7-Nov-19	IRWD Check	20,273.84	Reconciled
403599	CONTROLLED KEY SYSTEMS INC	7-Nov-19	IRWD Check	3,515.33	Reconciled
403600	CORELOGIC INC	7-Nov-19	IRWD Check	27.32	Reconciled
403601	COX COMMUNICATIONS, INC.	7-Nov-19	IRWD Check	265.62	Reconciled
403602	COXCO LLC	7-Nov-19	IRWD Check	26,709.79	Reconciled
403603	CR & R INCORPORATED	7-Nov-19	IRWD Check	1,823.49	Reconciled
403604	CREAGHE, LORENA	7-Nov-19	IRWD Check	204.17	Reconciled
403605	CULLIGAN OF SANTA ANA	7-Nov-19	IRWD Check	23,000.00	Reconciled
403606	D & G SIGNS	7-Nov-19	IRWD Check	9,071.71	Reconciled
403607	D & H WATER SYSTEMS INC.	7-Nov-19	IRWD Check	759.77	Reconciled
403608	DDB ENGINEERING, INC.	7-Nov-19	IRWD Check	4,100.00	Reconciled
403609	DELL MARKETING LP	7-Nov-19	IRWD Check	67.95	Reconciled
403610	DEMARIA ELECTRIC MOTOR SERVICES, INC.	7-Nov-19	IRWD Check	3,819.67	Reconciled

**IRVINE RANCH WATER DISTRICT  
AP DISBURSEMENTS AND VOIDS FOR NOVEMBER 2019**

<b>CHECK OR ELECTRONIC #</b>	<b>SUPPLIERS</b>	<b>PAYMENT DATE</b>	<b>PAYMENT METHOD</b>	<b>PAYMENT AMOUNT</b>	<b>STATUS</b>
403611	DEMPSEY CONSTRUCTION, INC.	7-Nov-19	IRWD Check	1,301.97	Reconciled
403612	DENALI WATER SOLUTIONS LLC	7-Nov-19	IRWD Check	8,330.29	Reconciled
403613	DENG, JIANFANG	7-Nov-19	IRWD Check	23.79	Negotiable
403614	DG INVESTMENT INTERMEDIATE HOLDINGS 2, INC.	7-Nov-19	IRWD Check	4,618.36	Reconciled
403615	DIN, KHURRAM	7-Nov-19	IRWD Check	32.14	Negotiable
403616	DPR CONSTRUCTION	7-Nov-19	IRWD Check	2,410.24	Reconciled
403617	DUDLEY RIDGE WATER DISTRICT	7-Nov-19	IRWD Check	81,426.32	Reconciled
403618	EI&C ENGINEERING INC	7-Nov-19	IRWD Check	61,870.00	Negotiable
403619	EKI ENVIRONMENT & WATER, INC.	7-Nov-19	IRWD Check	24,450.92	Reconciled
403620	EL TORO SHOPPING CENTER	7-Nov-19	IRWD Check	127.42	Reconciled
403621	ELECTRABOND	7-Nov-19	IRWD Check	5,302.00	Negotiable
403622	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.	7-Nov-19	IRWD Check	27,091.25	Reconciled
403623	ENVIRONMENTAL RESOURCE ASSOCIATES	7-Nov-19	IRWD Check	446.22	Reconciled
403624	FEDEX	7-Nov-19	IRWD Check	569.92	Reconciled
403625	FELLING TRAILERS, INC.	7-Nov-19	IRWD Check	9,289.28	Reconciled
403626	FERGUSON ENTERPRISES, LLC	7-Nov-19	IRWD Check	20,943.39	Reconciled
403627	FERGUSON ENTERPRISES, LLC	7-Nov-19	IRWD Check	1,163.38	Reconciled
403628	FISERV	7-Nov-19	IRWD Check	285.4	Reconciled
403629	FISHER SCIENTIFIC COMPANY LLC	7-Nov-19	IRWD Check	3,976.31	Reconciled
403630	FLEET SOLUTIONS LLC	7-Nov-19	IRWD Check	5,123.25	Reconciled
403631	FLO-SYSTEMS INC	7-Nov-19	IRWD Check	22,457.25	Reconciled
403632	FLUID CONSERVATION SYSTEMS INC	7-Nov-19	IRWD Check	381.35	Reconciled
403633	FOOTHILL/EASTERN TRANSPORTATION	7-Nov-19	IRWD Check	4,650.00	Reconciled
403634	FOUGHT, CYNTHIA J.	7-Nov-19	IRWD Check	96.12	Reconciled
403635	FREEWAY MACHINE & WELDING SHOP	7-Nov-19	IRWD Check	8,081.25	Reconciled
403636	FULLER TRUCK ACCESSORIES	7-Nov-19	IRWD Check	2,705.60	Reconciled
403637	FUSCOE ENGINEERING, INC.	7-Nov-19	IRWD Check	559	Reconciled
403638	GAMEZ, SIERRA	7-Nov-19	IRWD Check	38.96	Negotiable
403639	GAYDOS, TERRI	7-Nov-19	IRWD Check	433.82	Negotiable
403640	GENUINE ENGINEERING INC	7-Nov-19	IRWD Check	1,806.08	Reconciled
403641	GOLDEN BELL PRODUCTS	7-Nov-19	IRWD Check	1,956.50	Reconciled
403642	GOLDMAN, SACHS & CO. LLC	7-Nov-19	IRWD Check	14,493.15	Reconciled
403643	GRAINGER	7-Nov-19	IRWD Check	5,276.31	Reconciled
403644	GU, MENG	7-Nov-19	IRWD Check	57.2	Reconciled
403645	HAAKER EQUIPMENT COMPANY	7-Nov-19	IRWD Check	275.38	Reconciled
403646	HACH COMPANY	7-Nov-19	IRWD Check	10,615.87	Reconciled
403647	HAOCHUN, SUN	7-Nov-19	IRWD Check	36.4	Negotiable
403648	HARCHARAN SAHNI	7-Nov-19	IRWD Check	45.19	Reconciled
403649	HARRINGTON INDUSTRIAL PLASTICS LLC	7-Nov-19	IRWD Check	7,458.14	Reconciled
403650	HAZEN AND SAWYER	7-Nov-19	IRWD Check	8,710.00	Reconciled
403651	HDR ENGINEERING INC	7-Nov-19	IRWD Check	1,485.00	Reconciled
403652	HELP/SYSTEMS, LLC	7-Nov-19	IRWD Check	3,500.00	Reconciled
403653	HELPMATES STAFFING SERVICES	7-Nov-19	IRWD Check	12,016.93	Reconciled
403654	HERITAGE HILLS IRVINE, LLC	7-Nov-19	IRWD Check	203,343.16	Reconciled
403655	HILL BROTHERS CHEMICAL COMPANY	7-Nov-19	IRWD Check	7,977.08	Reconciled
403656	HOME DEPOT USA INC	7-Nov-19	IRWD Check	297.57	Reconciled
403657	INDUSTRIAL NETWORKING SOLUTIONS	7-Nov-19	IRWD Check	6,135.63	Reconciled
403658	INFOSEND, INC.	7-Nov-19	IRWD Check	35,174.52	Reconciled
403659	IRVINE GATEWAY DEVELOPMENT, LLC	7-Nov-19	IRWD Check	31.81	Reconciled
403660	IRVINE PACIFIC	7-Nov-19	IRWD Check	153.25	Reconciled
403661	IRVINE PIPE & SUPPLY INC	7-Nov-19	IRWD Check	2,440.55	Reconciled
403662	IRWD-PETTY CASH CUSTODIAN	7-Nov-19	IRWD Check	1,259.40	Reconciled
403663	JAMES LEE AND FENPING WANG	7-Nov-19	IRWD Check	200.64	Negotiable
403664	JPR SYSTEMS INC	7-Nov-19	IRWD Check	6,797.30	Reconciled
403665	KAESER COMPRESSORS, INC.	7-Nov-19	IRWD Check	2,081.34	Reconciled
403666	KALVAKHI, FARHAD	7-Nov-19	IRWD Check	10.32	Negotiable
403667	KB HOMES	7-Nov-19	IRWD Check	259.48	Reconciled
403668	KENT DAHLBERG	7-Nov-19	IRWD Check	7,050.00	Reconciled
403669	KO, ANDREW	7-Nov-19	IRWD Check	29.77	Negotiable
403670	KOMATA, YUMIKO	7-Nov-19	IRWD Check	33.06	Reconciled
403671	KONECRANES INC	7-Nov-19	IRWD Check	2,511.50	Reconciled
403672	KOOTALA MOHAN, VISHWANATH	7-Nov-19	IRWD Check	18.33	Reconciled
403673	LA HABRA FENCE COMPANY INC	7-Nov-19	IRWD Check	5,334.00	Reconciled
403674	LANDCARE HOLDINGS, INC.	7-Nov-19	IRWD Check	34,504.49	Reconciled
403675	LBA-RVI - COMPANY XIX, LLC	7-Nov-19	IRWD Check	7,678.76	Reconciled
403676	LEGUINA, JOEL	7-Nov-19	IRWD Check	57.05	Negotiable
403677	LENNAR HOMES	7-Nov-19	IRWD Check	610.89	Reconciled
403678	LONGOBARDI, DOUGLAS	7-Nov-19	IRWD Check	261.76	Reconciled
403679	M.CUBED	7-Nov-19	IRWD Check	4,906.25	Reconciled
403680	MC FADDEN-DALE INDUSTRIAL	7-Nov-19	IRWD Check	92.32	Reconciled

**IRVINE RANCH WATER DISTRICT  
AP DISBURSEMENTS AND VOIDS FOR NOVEMBER 2019**

<b>CHECK OR ELECTRONIC #</b>	<b>SUPPLIERS</b>	<b>PAYMENT DATE</b>	<b>PAYMENT METHOD</b>	<b>PAYMENT AMOUNT</b>	<b>STATUS</b>
403681	MC MASTER CARR SUPPLY CO	7-Nov-19	IRWD Check	290.04	Reconciled
403682	MCCROMETER, INC.	7-Nov-19	IRWD Check	522.36	Reconciled
403683	MCDEVITT, BRENDAN	7-Nov-19	IRWD Check	13.23	Negotiable
403684	MCKENNA, AUDREY	7-Nov-19	IRWD Check	34.05	Negotiable
403685	MERRIMAC PETROLEUM, INC.	7-Nov-19	IRWD Check	45,997.86	Reconciled
403686	MILLER, ALBERT J	7-Nov-19	IRWD Check	157.07	Reconciled
403687	MISCOWATER	7-Nov-19	IRWD Check	1,396.81	Reconciled
403688	MOBILE MODULAR MANAGEMENT CORPORATION	7-Nov-19	IRWD Check	1,212.19	Reconciled
403689	MOHAMMAD, SALAHUDDIN	7-Nov-19	IRWD Check	12.13	Reconciled
403690	MPULSE MOBILE, INC	7-Nov-19	IRWD Check	143.22	Reconciled
403691	MUTUAL PROPANE	7-Nov-19	IRWD Check	119.75	Reconciled
403692	NATIONAL READY MIXED CONCRETE SALES, LLC	7-Nov-19	IRWD Check	1,285.49	Reconciled
403693	NATURALWELL, LLC	7-Nov-19	IRWD Check	2,200.00	Reconciled
403694	NATURES IMAGE INC	7-Nov-19	IRWD Check	3,731.00	Reconciled
403695	NEW PIG CORPORATION	7-Nov-19	IRWD Check	3,296.67	Reconciled
403696	NEWPORT REAL ESTATE SERVICES	7-Nov-19	IRWD Check	13,100.00	Reconciled
403697	NINYO & MOORE	7-Nov-19	IRWD Check	4,843.00	Reconciled
403698	NMG GEOTECHNICAL INC	7-Nov-19	IRWD Check	4,444.20	Reconciled
403699	O.C. SUPERIOR CUSTOM CLEANING	7-Nov-19	IRWD Check	4,600.00	Negotiable
403700	OLIN CORPORATION	7-Nov-19	IRWD Check	37,144.05	Reconciled
403701	ONESOURCE DISTRIBUTORS LLC	7-Nov-19	IRWD Check	618.49	Reconciled
403702	ONYX PAVING COMPANY INC.	7-Nov-19	IRWD Check	40,108.05	Reconciled
403703	ORACLE AMERICA, INC.	7-Nov-19	IRWD Check	1,748.75	Reconciled
403704	ORANGE COUNTY AUTO PARTS CO	7-Nov-19	IRWD Check	4,580.75	Reconciled
403705	ORANGE COUNTY SANITATION DISTRICT	7-Nov-19	IRWD Check	2,210.00	Reconciled
403706	PACIFIC COAST BOLT CORP	7-Nov-19	IRWD Check	2,014.92	Reconciled
403707	PARKHOUSE TIRE INC	7-Nov-19	IRWD Check	3,107.40	Reconciled
403708	PASCAL & LUDWIG CONSTRUCTORS	7-Nov-19	IRWD Check	223,369.60	Reconciled
403709	PASCAL & LUDWIG CONSTRUCTORS	7-Nov-19	IRWD Check	11,756.29	Reconciled
403710	PAULUS ENGINEERING INC	7-Nov-19	IRWD Check	148,742.47	Reconciled
403711	PAULUS ENGINEERING, INC.	7-Nov-19	IRWD Check	1,595.00	Reconciled
403712	PAULUS ENGINEERING, INC.	7-Nov-19	IRWD Check	34,427.00	Reconciled
403713	PELLETIER & ASSOCIATES, INC.	7-Nov-19	IRWD Check	390	Reconciled
403714	PENN ARCHIVE SERVICES	7-Nov-19	IRWD Check	47.5	Reconciled
403715	POLLARDWATER.COM	7-Nov-19	IRWD Check	266.5	Reconciled
403716	PROCARE WORK INJURY CENTER	7-Nov-19	IRWD Check	255	Reconciled
403717	PTI SAND & GRAVEL INC	7-Nov-19	IRWD Check	1,290.57	Reconciled
403718	R & S SOIL PRODUCTS, INC	7-Nov-19	IRWD Check	700.38	Reconciled
403719	R C FOSTER CORPORATION	7-Nov-19	IRWD Check	57,777.39	Reconciled
403720	RAFII, SHERVIN	7-Nov-19	IRWD Check	39.99	Reconciled
403721	RCE CONSULTANTS, INC.	7-Nov-19	IRWD Check	6,403.21	Reconciled
403722	RED HAWK FIRE & SECURITY (CA) LLC	7-Nov-19	IRWD Check	250	Reconciled
403723	REFRIGERATION SUPPLIES DISTRIBUTOR	7-Nov-19	IRWD Check	234.01	Reconciled
403724	RENTOKIL NORTH AMERICA, INC	7-Nov-19	IRWD Check	9,568.00	Reconciled
403725	RINCON TRUCK CENTER INC.	7-Nov-19	IRWD Check	925.39	Reconciled
403726	RLG ENTERPRISES, INC	7-Nov-19	IRWD Check	756.6	Reconciled
403727	S&S SEEDS INC	7-Nov-19	IRWD Check	1,545.76	Reconciled
403728	SABETI, TRACY	7-Nov-19	IRWD Check	13.05	Reconciled
403729	SANDERS PAVING INC	7-Nov-19	IRWD Check	8,466.50	Reconciled
403730	SANTA MARGARITA FORD	7-Nov-19	IRWD Check	335.31	Reconciled
403731	SEAL ANALYTICAL INC	7-Nov-19	IRWD Check	359.13	Reconciled
403732	SHAMROCK SUPPLY CO INC	7-Nov-19	IRWD Check	2,587.24	Reconciled
403733	SHEIBANI, ALI	7-Nov-19	IRWD Check	62.52	Reconciled
403734	SHEN, AIRU	7-Nov-19	IRWD Check	36.38	Negotiable
403735	SIMI VALLEY LANDFILL AND RECYCLING CENTER	7-Nov-19	IRWD Check	542.16	Reconciled
403736	SITMATIC	7-Nov-19	IRWD Check	790.15	Reconciled
403737	SKORUZ TECHNOLOGIES	7-Nov-19	IRWD Check	21,560.00	Reconciled
403738	SOUTH COAST WATER DISTRICT	7-Nov-19	IRWD Check	119.97	Reconciled
403739	SOUTHERN CALIFORNIA EDISON COMPANY	7-Nov-19	IRWD Check	3,350.00	Reconciled
403740	SOUTHERN CALIFORNIA EDISON COMPANY	7-Nov-19	IRWD Check	226,894.22	Reconciled
403741	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.	7-Nov-19	IRWD Check	1,017.34	Reconciled
403742	SOUTHERN COUNTIES LUBRICANTS LLC	7-Nov-19	IRWD Check	564.9	Reconciled
403743	STATE WATER RESOURCES CONTROL BOARD	7-Nov-19	IRWD Check	652	Reconciled
403744	SULZER ELECTRO-MECHANICAL SERVICES (US) INC.	7-Nov-19	IRWD Check	33,646.45	Reconciled
403745	SUPERIOR WATER TECHNOLOGIES	7-Nov-19	IRWD Check	9,430.83	Reconciled
403746	SUSAN A. SIROTA	7-Nov-19	IRWD Check	9,050.00	Reconciled
403748	TAYLOR MORRISON OF CALIFORNIA, LLC	7-Nov-19	IRWD Check	83.17	Reconciled
403749	TESCO CONTROLS, INC.	7-Nov-19	IRWD Check	1,992.00	Reconciled
403750	THOMPSON INDUSTRIAL SUPPLY	7-Nov-19	IRWD Check	23,756.09	Reconciled
403751	THYSSENKRUPP ELEVATOR CORPORATION	7-Nov-19	IRWD Check	198.24	Reconciled

**IRVINE RANCH WATER DISTRICT  
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<b>CHECK OR ELECTRONIC #</b>	<b>SUPPLIERS</b>	<b>PAYMENT DATE</b>	<b>PAYMENT METHOD</b>	<b>PAYMENT AMOUNT</b>	<b>STATUS</b>
403752	TIAN, FENGNA	7-Nov-19	IRWD Check	10.33	Negotiable
403753	TINALDEN PROPERTY SERVICES	7-Nov-19	IRWD Check	15.8	Reconciled
403754	TOLENTINO, AL	7-Nov-19	IRWD Check	14.13	Negotiable
403755	TOOVEY, CYNTHIA	7-Nov-19	IRWD Check	34.83	Reconciled
403756	TRI POINTE HOMES, INC.	7-Nov-19	IRWD Check	95.59	Reconciled
403757	TROPICAL PLAZA NURSERY INC	7-Nov-19	IRWD Check	15,846.00	Reconciled
403758	TRUCPARCO	7-Nov-19	IRWD Check	105.98	Reconciled
403759	TRUKSPECT, INC	7-Nov-19	IRWD Check	1,807.92	Reconciled
403760	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	7-Nov-19	IRWD Check	2,505.38	Reconciled
403761	UNITED PARCEL SERVICE INC	7-Nov-19	IRWD Check	79.29	Reconciled
403762	UNITED SITE SERVICES OF CALIFORNIA INC	7-Nov-19	IRWD Check	887.88	Reconciled
403763	UNIVAR SOLUTIONS USA INC.	7-Nov-19	IRWD Check	7,152.00	Reconciled
403764	US BANK NAT'L ASSOC N.DAKOTA	7-Nov-19	IRWD Check	10,145.20	Reconciled
403765	VCI CONSTRUCTION LLC	7-Nov-19	IRWD Check	1,342.47	Reconciled
403766	VERIZON WIRELESS SERVICES LLC	7-Nov-19	IRWD Check	5,260.35	Reconciled
403767	VULCAN MATERIALS COMPANY	7-Nov-19	IRWD Check	1,482.20	Reconciled
403768	VWR INTERNATIONAL, LLC	7-Nov-19	IRWD Check	315.01	Reconciled
403769	WARD, WILLIAM P JR.	7-Nov-19	IRWD Check	1,291.46	Reconciled
403770	WARE MALCOMB	7-Nov-19	IRWD Check	10,405.61	Reconciled
403771	WASTE MANAGEMENT OF ORANGE COUNTY	7-Nov-19	IRWD Check	5,852.35	Reconciled
403772	WAXIE'S ENTERPRISES, INC	7-Nov-19	IRWD Check	345.74	Reconciled
403773	WESTERN AV	7-Nov-19	IRWD Check	360	Reconciled
403774	WESTERN SAFETY PRODUCTS INC	7-Nov-19	IRWD Check	4,321.85	Reconciled
403775	WIN-911 SOFTWARE	7-Nov-19	IRWD Check	568.75	Reconciled
403776	WISCONSIN STATE LABORATORY OF HYGENE	7-Nov-19	IRWD Check	1,015.00	Reconciled
403777	WOODBRIIDGE VILLAS	7-Nov-19	IRWD Check	155.27	Reconciled
403778	WORKFORCE SAFETY LLC	7-Nov-19	IRWD Check	3,000.00	Negotiable
403779	XU, JAMES	7-Nov-19	IRWD Check	987.38	Reconciled
403780	XU, MINGZHOU	7-Nov-19	IRWD Check	47.57	Negotiable
403781	XU, XINZHI	7-Nov-19	IRWD Check	22.34	Negotiable
403782	YANG, KIM	7-Nov-19	IRWD Check	17.89	Negotiable
403783	YANG, LEI	7-Nov-19	IRWD Check	67.33	Reconciled
403784	YP LLC	7-Nov-19	IRWD Check	89.79	Reconciled
403785	YSI, INC	7-Nov-19	IRWD Check	5,392.12	Reconciled
403786	ZHENG, WENJIE	7-Nov-19	IRWD Check	476.45	Negotiable
403787	ZHOU, QIAN	7-Nov-19	IRWD Check	444.99	Negotiable
403788	JCI JONES CHEMICALS INC	8-Nov-19	IRWD Check	3,348.78	Reconciled
403789	ORANGE COUNTY SHERIFF'S OFFICE	8-Nov-19	IRWD Check	62.5	Reconciled
403790	FRANCHISE TAX BOARD	8-Nov-19	IRWD Check	380	Negotiable
403791	PERS LONG TERM CARE	8-Nov-19	IRWD Check	538.89	Reconciled
403792	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	8-Nov-19	IRWD Check	2,430.82	Reconciled
403793	STATE OF CALIFORNIA, EDD	8-Nov-19	IRWD Check	75	Reconciled
403794	WESTAMERICA COMMUNICATIONS, INC.	11-Nov-19	IRWD Check	5,176.50	Reconciled
403795	SOUTHERN CALIFORNIA EDISON COMPANY	11-Nov-19	IRWD Check	710.7	Reconciled
403796	Lao, Richard S	14-Nov-19	IRWD Check	58	Reconciled
403797	COUNTY OF ORANGE	14-Nov-19	IRWD Check	24,245.78	Reconciled
403798	PALO VERDE IRRIGATION DISTRICT	14-Nov-19	IRWD Check	12,563.63	Reconciled
403799	Arana, Michael A	14-Nov-19	IRWD Check	197.2	Reconciled
403800	Bertsch, Frederick J (Jeff)	14-Nov-19	IRWD Check	3,444.80	Reconciled
403801	Burk, Rachael	14-Nov-19	IRWD Check	3.94	Negotiable
403802	Chauv, Denise	14-Nov-19	IRWD Check	112.68	Reconciled
403803	Chia, David C (David)	14-Nov-19	IRWD Check	94.68	Reconciled
403804	Cortez, Malcolm A (Malcolm)	14-Nov-19	IRWD Check	9.74	Reconciled
403805	Crowe, David M (David)	14-Nov-19	IRWD Check	120	Reconciled
403806	Frost, Garrick A (Garrick)	14-Nov-19	IRWD Check	9.16	Negotiable
403807	Haney, Lisa	14-Nov-19	IRWD Check	91.64	Reconciled
403808	Kanady, Jacob	14-Nov-19	IRWD Check	145	Negotiable
403809	LaMar, Steven E	14-Nov-19	IRWD Check	464.77	Reconciled
403810	Lynch, Toni Marie	14-Nov-19	IRWD Check	13.28	Reconciled
403811	Matheis, Mary Aileen	14-Nov-19	IRWD Check	50	Reconciled
403812	Moeder, Jacob J (Jacob)	14-Nov-19	IRWD Check	13.28	Reconciled
403813	Mwe, Nang	14-Nov-19	IRWD Check	9.74	Reconciled
403814	Pan, Jenny W (Jenny)	14-Nov-19	IRWD Check	872.12	Reconciled
403815	Pfister, Ken D (Ken)	14-Nov-19	IRWD Check	65.24	Negotiable
403816	Phuong, Sophia	14-Nov-19	IRWD Check	277.63	Reconciled
403817	Pilgrim, Jason S	14-Nov-19	IRWD Check	9.16	Reconciled
403818	Swan, Peer	14-Nov-19	IRWD Check	38.96	Reconciled
403819	Weghorst, Paul A (Paul)	14-Nov-19	IRWD Check	107.73	Reconciled
403820	A&A WIPING CLOTH CO	14-Nov-19	IRWD Check	835.07	Reconciled
403821	ABSOLUTE STANDARDS, INC.	14-Nov-19	IRWD Check	227.5	Reconciled



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403822	AEGIS ENGINEERING MANAGEMENT, INC.	14-Nov-19	IRWD Check	3,200.00	Reconciled
403823	AGILENT TECHNOLOGIES, INC.	14-Nov-19	IRWD Check	78.61	Reconciled
403824	AIR TECHNOLOGY LABORATORIES	14-Nov-19	IRWD Check	717	Negotiable
403825	AIRGAS, INC.	14-Nov-19	IRWD Check	448.24	Reconciled
403826	AKOMOLAFE, OLU	14-Nov-19	IRWD Check	371.38	Negotiable
403827	AMAZON CAPITAL SERVICES, INC.	14-Nov-19	IRWD Check	1,085.12	Reconciled
403828	AMETEK BROOKFIELD	14-Nov-19	IRWD Check	216.77	Reconciled
403829	APEX SYSTEMS, LLC	14-Nov-19	IRWD Check	5,408.00	Reconciled
403830	ASHFORD, WALT	14-Nov-19	IRWD Check	524.4	Reconciled
403831	AT&T	14-Nov-19	IRWD Check	66.18	Reconciled
403832	AT&T	14-Nov-19	IRWD Check	1,666.07	Reconciled
403833	AUTOZONE PARTS, INC.	14-Nov-19	IRWD Check	106.93	Reconciled
403834	B & K ELECTRIC WHOLESale	14-Nov-19	IRWD Check	10,202.32	Reconciled
403835	BDC SPECIAL WASTE	14-Nov-19	IRWD Check	465	Negotiable
403836	BELL TOWER FLORIST & GIFTS	14-Nov-19	IRWD Check	126.06	Reconciled
403837	BIOQUIP PRODUCTS INC	14-Nov-19	IRWD Check	199	Reconciled
403838	BIOTAGE LLC	14-Nov-19	IRWD Check	139.29	Reconciled
403839	BROWN AND CALDWELL	14-Nov-19	IRWD Check	13,742.64	Reconciled
403840	BSI SERVICES AND SOLUTIONS (WEST) INC.	14-Nov-19	IRWD Check	13,860.00	Reconciled
403841	C WELLS PIPELINE MATERIALS INC	14-Nov-19	IRWD Check	15,736.39	Reconciled
403842	CALIFORNIA BARRICADE RENTAL, INC.	14-Nov-19	IRWD Check	22,612.99	Negotiable
403843	CALIFORNIA DEPARTMENT OF TAX AND FEE ADMINISTRATION	14-Nov-19	IRWD Check	3,794.00	Reconciled
403844	CALIFORNIA DEPT OF PUBLIC HEALTH	14-Nov-19	IRWD Check	473	Reconciled
403845	CALIFORNIA PACIFIC HOMES	14-Nov-19	IRWD Check	51.99	Reconciled
403846	CANON SOLUTIONS AMERICA, INC.	14-Nov-19	IRWD Check	12.3	Reconciled
403847	CARLOS, EDUARDO	14-Nov-19	IRWD Check	142.23	Negotiable
403848	CAROLLO ENGINEERS, INC	14-Nov-19	IRWD Check	8,693.00	Reconciled
403849	CASA	14-Nov-19	IRWD Check	20,053.00	Reconciled
403850	CHEM TECH INTERNATIONAL INC	14-Nov-19	IRWD Check	5,486.88	Reconciled
403851	CITY OF IRVINE	14-Nov-19	IRWD Check	3,819.90	Reconciled
403852	CLA-VAL COMPANY	14-Nov-19	IRWD Check	14,794.64	Reconciled
403853	CLARIS STRATEGY INC.	14-Nov-19	IRWD Check	10,965.00	Reconciled
403854	CLEAN ENERGY	14-Nov-19	IRWD Check	5,693.56	Reconciled
403855	CLIFFORD MORIYAMA	14-Nov-19	IRWD Check	4,000.00	Reconciled
403856	COMMERCIAL TRANSPORTATION SERVICES, INC	14-Nov-19	IRWD Check	8,330.46	Reconciled
403857	CONSOLIDATED CONTRACTING SERVICES, INC.	14-Nov-19	IRWD Check	354.82	Negotiable
403858	CONSTELLATION NEWENERGY, INC.	14-Nov-19	IRWD Check	23,960.79	Reconciled
403859	COUNTY OF ORANGE	14-Nov-19	IRWD Check	81,935.38	Reconciled
403860	COUNTY OF ORANGE	14-Nov-19	IRWD Check	12,465.20	Reconciled
403861	COUNTY OF ORANGE	14-Nov-19	IRWD Check	2,674.00	Reconciled
403862	CRISTINA GUGLIELMO-MAGGETTI & HELEN JUSTINO	14-Nov-19	IRWD Check	40.1	Reconciled
403863	CUSTOM TRUCK ONE SOURCE, L.P.	14-Nov-19	IRWD Check	1,503.12	Reconciled
403864	DATASITE INC	14-Nov-19	IRWD Check	4,260.00	Negotiable
403865	DEALERS SERVICE, INC	14-Nov-19	IRWD Check	466.92	Reconciled
403866	DEE JASPAR & ASSOCIATES, INC.	14-Nov-19	IRWD Check	5,852.31	Negotiable
403867	DENG, WEN	14-Nov-19	IRWD Check	1,307.87	Reconciled
403868	DISCOUNT COURIER SERVICE INC.	14-Nov-19	IRWD Check	364.59	Reconciled
403869	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY	14-Nov-19	IRWD Check	2,026.08	Reconciled
403870	EHS INTERNATIONAL, INC	14-Nov-19	IRWD Check	1,980.00	Reconciled
403871	EISEL ENTERPRISES INC	14-Nov-19	IRWD Check	3,431.59	Reconciled
403872	EUROFINS EATON ANALYTICAL, INC.	14-Nov-19	IRWD Check	315	Reconciled
403873	EVANTEC CORPORATION	14-Nov-19	IRWD Check	129.3	Reconciled
403874	EVERETT DOREY LLP	14-Nov-19	IRWD Check	6,058.09	Negotiable
403875	EXECUTIVE LIGHTING & ELECTRIC	14-Nov-19	IRWD Check	4,226.78	Reconciled
403876	FALCON ELECTRIC, INC.	14-Nov-19	IRWD Check	1,707.38	Negotiable
403877	FERGUSON ENTERPRISES, LLC	14-Nov-19	IRWD Check	2,594.28	Reconciled
403878	FIRST CHOICE SERVICES	14-Nov-19	IRWD Check	1,392.79	Reconciled
403879	FISHER SCIENTIFIC COMPANY LLC	14-Nov-19	IRWD Check	4,237.11	Reconciled
403880	FLW, INC.	14-Nov-19	IRWD Check	1,201.95	Reconciled
403881	FRONTIER CALIFORNIA INC.	14-Nov-19	IRWD Check	57.9	Reconciled
403882	GHAEMI, MEHRDAD	14-Nov-19	IRWD Check	280.36	Reconciled
403883	GRAINGER	14-Nov-19	IRWD Check	273.49	Reconciled
403884	GREGG OHLHAVER	14-Nov-19	IRWD Check	2,423.29	Reconciled
403885	HAAKER EQUIPMENT COMPANY	14-Nov-19	IRWD Check	992.72	Reconciled
403886	HABITAT RESTORATION SCIENCES, INC.	14-Nov-19	IRWD Check	1,183.00	Reconciled
403887	HACH COMPANY	14-Nov-19	IRWD Check	18,630.41	Reconciled
403888	HAMID KHORRAM AND SOUSAN DARIAN	14-Nov-19	IRWD Check	285.48	Reconciled
403889	HAMILTON, KURT	14-Nov-19	IRWD Check	1,337.49	Reconciled
403890	HAN, ASHLEY	14-Nov-19	IRWD Check	745.23	Reconciled
403891	HARRINGTON INDUSTRIAL PLASTICS LLC	14-Nov-19	IRWD Check	6,419.44	Reconciled

**IRVINE RANCH WATER DISTRICT  
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403892	HAZEN AND SAWYER	14-Nov-19	IRWD Check	4,550.00	Reconciled
403893	HDR ENGINEERING INC	14-Nov-19	IRWD Check	17,206.50	Reconciled
403894	HELPMATES STAFFING SERVICES	14-Nov-19	IRWD Check	13,681.00	Reconciled
403895	HENSEL PHELPS CONSTRUCTION CO.	14-Nov-19	IRWD Check	130.72	Reconciled
403896	HOME DEPOT USA INC	14-Nov-19	IRWD Check	967.34	Reconciled
403897	HUANG, QING	14-Nov-19	IRWD Check	54.14	Negotiable
403898	HUGHES, CYNDY	14-Nov-19	IRWD Check	63.08	Reconciled
403899	IDEXX DISTRIBUTION, INC	14-Nov-19	IRWD Check	8,528.71	Reconciled
403900	INFOSEND, INC.	14-Nov-19	IRWD Check	14,022.24	Reconciled
403901	IRON MOUNTAIN INFORMATION MANAGEMENT INC	14-Nov-19	IRWD Check	1,915.84	Reconciled
403902	IRVINE PIPE & SUPPLY INC	14-Nov-19	IRWD Check	4,373.93	Reconciled
403903	IRVINE UNIFIED SCHOOL DISTRICT	14-Nov-19	IRWD Check	4,205.83	Reconciled
403904	IRWD-PETTY CASH CUSTODIAN	14-Nov-19	IRWD Check	950.9	Reconciled
403905	JAMES PRODUCTIONS, INC.	14-Nov-19	IRWD Check	2,720.00	Reconciled
403906	JOHN W HOCK COMPANY	14-Nov-19	IRWD Check	2,322.41	Negotiable
403907	JOHNSTONE SUPPLY SANTA ANA	14-Nov-19	IRWD Check	3,461.07	Reconciled
403908	K HOVNIANIAN HOMES	14-Nov-19	IRWD Check	74.95	Reconciled
403909	KAYUGA SOLUTION INC	14-Nov-19	IRWD Check	3,600.00	Reconciled
403910	KENT DAHLBERG	14-Nov-19	IRWD Check	76,600.00	Reconciled
403911	KINGS COUNTY TAX COLLECTOR	14-Nov-19	IRWD Check	21,961.36	Reconciled
403912	KINGSPAN LIGHT + AIR LLC	14-Nov-19	IRWD Check	2,106.52	Reconciled
403913	KPRS CONSTRUCTION SERVICES, INC.	14-Nov-19	IRWD Check	1,557,577.52	Reconciled
403914	LANDCARE HOLDINGS, INC.	14-Nov-19	IRWD Check	11,385.62	Reconciled
403915	LENNAR HOMES	14-Nov-19	IRWD Check	297.41	Reconciled
403916	LILLESTRAND LEADERSHIP CONSULTING, INC.	14-Nov-19	IRWD Check	2,957.74	Negotiable
403917	LIN, JENNIFER	14-Nov-19	IRWD Check	41.31	Reconciled
403918	LIN, WEIDONG	14-Nov-19	IRWD Check	34.66	Reconciled
403919	LITTLEJOHN-REULAND CORPORATION	14-Nov-19	IRWD Check	8,291.43	Reconciled
403920	LU, BO	14-Nov-19	IRWD Check	23.98	Reconciled
403921	LUSTRE-CAL NAMEPLATE CORPORATION	14-Nov-19	IRWD Check	2,381.18	Reconciled
403922	M.CUBED	14-Nov-19	IRWD Check	773.75	Reconciled
403923	MARK KADESH	14-Nov-19	IRWD Check	10,000.00	Reconciled
403924	MC MASTER CARR SUPPLY CO	14-Nov-19	IRWD Check	1,115.31	Reconciled
403925	MICHELE CHAVIS-LOVING	14-Nov-19	IRWD Check	2,944.26	Reconciled
403926	MIRASOL APARTMENTS	14-Nov-19	IRWD Check	376.29	Negotiable
403927	MISSION COMMUNICATIONS, LLC	14-Nov-19	IRWD Check	1,126.80	Reconciled
403928	MOJAB, ABDOL	14-Nov-19	IRWD Check	292.04	Negotiable
403929	NATIONAL READY MIXED CONCRETE SALES, LLC	14-Nov-19	IRWD Check	6,930.04	Reconciled
403930	NAVIGANT CONSULTING, INC	14-Nov-19	IRWD Check	9,561.50	Reconciled
403931	NICHOLSON, RICHARD E	14-Nov-19	IRWD Check	554.23	Negotiable
403932	NINYO & MOORE	14-Nov-19	IRWD Check	277.5	Reconciled
403933	NIU, WEEN TSUNG	14-Nov-19	IRWD Check	80	Reconciled
403934	NIXON-EGLI EQUIPMENT COMPANY INC.	14-Nov-19	IRWD Check	2,191.49	Reconciled
403935	NORTHWOOD PLACE APTS	14-Nov-19	IRWD Check	36.84	Negotiable
403936	NOVACOAST INC	14-Nov-19	IRWD Check	1,845.20	Reconciled
403937	NURLINK LLC	14-Nov-19	IRWD Check	46.01	Negotiable
403938	NV5, INC.	14-Nov-19	IRWD Check	18,025.00	Reconciled
403939	OLIN CORPORATION	14-Nov-19	IRWD Check	18,306.25	Reconciled
403940	ONESOURCE DISTRIBUTORS LLC	14-Nov-19	IRWD Check	3,662.90	Reconciled
403941	ORANGE COUNTY AUTO PARTS CO	14-Nov-19	IRWD Check	1,928.38	Reconciled
403942	ORANGE COUNTY FIRE PROTECTION	14-Nov-19	IRWD Check	6,133.15	Reconciled
403943	ORANGE COUNTY SANITATION DISTRICT	14-Nov-19	IRWD Check	2,210.00	Reconciled
403944	PACIFIC COAST BOLT CORP	14-Nov-19	IRWD Check	641.12	Reconciled
403945	PACIFIC HYDROTECH CORPORATION	14-Nov-19	IRWD Check	38,897.62	Reconciled
403946	PACIFIC HYDROTECH CORPORATION	14-Nov-19	IRWD Check	739,054.88	Reconciled
403947	PALO VERDE IRRIGATION DISTRICT	14-Nov-19	IRWD Check	13,018.10	Reconciled
403948	PAPER DEPOT DOCUMENT DESTRUCTION LLC	14-Nov-19	IRWD Check	540	Reconciled
403949	PARKHOUSE TIRE INC	14-Nov-19	IRWD Check	2,078.55	Reconciled
403950	PARKWAY LAWNMOWER SHOP	14-Nov-19	IRWD Check	106.67	Reconciled
403951	PCL CONSTRUCTION, INC.	14-Nov-19	IRWD Check	255,523.87	Negotiable
403952	PELLETIER & ASSOCIATES, INC.	14-Nov-19	IRWD Check	1,303.00	Reconciled
403953	PETRUSSE-NORRIS PAINTING, INC.	14-Nov-19	IRWD Check	3,902.36	Reconciled
403954	PIVOT INTERIORS INC	14-Nov-19	IRWD Check	2,132.53	Reconciled
403955	PLUMBERS DEPOT INC.	14-Nov-19	IRWD Check	323.88	Negotiable
403956	PRAXAIR DISTRIBUTION INC	14-Nov-19	IRWD Check	1,275.74	Reconciled
403957	PRES-TECH MANUFACTURERS' REPRESENTATIVES, INC.	14-Nov-19	IRWD Check	86.2	Reconciled
403958	PROCARE WORK INJURY CENTER	14-Nov-19	IRWD Check	833.73	Reconciled
403959	PSOMAS	14-Nov-19	IRWD Check	9,732.88	Reconciled
403960	PURE EFFECT INC	14-Nov-19	IRWD Check	7,553.50	Reconciled
403961	PYRO-COMM SYSTEMS INC	14-Nov-19	IRWD Check	240	Reconciled

**IRVINE RANCH WATER DISTRICT  
AP DISBURSEMENTS AND VOIDS FOR NOVEMBER 2019**

CHECK OR ELECTRONIC #	SUPPLIERS	PAYMENT DATE	PAYMENT METHOD	PAYMENT AMOUNT	STATUS
403962	QIAO, JINGHUA	14-Nov-19	IRWD Check	12.41	Reconciled
403963	QUINTANA, WATTS & HARTMANN, LLC	14-Nov-19	IRWD Check	5,000.00	Reconciled
403964	RAM AIR ENGINEERING INC	14-Nov-19	IRWD Check	3,630.00	Negotiable
403965	RANCHO MARIPOSA APTS	14-Nov-19	IRWD Check	40.35	Negotiable
403966	REAL WATER CONSULTANTS INC.	14-Nov-19	IRWD Check	120	Negotiable
403967	RED HAWK FIRE & SECURITY (CA) LLC	14-Nov-19	IRWD Check	550	Reconciled
403968	RED WING SHOE STORE	14-Nov-19	IRWD Check	538.65	Reconciled
403969	RELIANCE SAFETY CONSULTANTS, INC.	14-Nov-19	IRWD Check	1,250.00	Negotiable
403970	RESILIENT COMMUNICATIONS INC.	14-Nov-19	IRWD Check	4,315.81	Negotiable
403971	RINCON TRUCK CENTER INC.	14-Nov-19	IRWD Check	896.93	Reconciled
403972	RLG ENTERPRISES, INC	14-Nov-19	IRWD Check	80.89	Reconciled
403973	RONAGHI, NADER	14-Nov-19	IRWD Check	60.06	Negotiable
403974	ROSE PAVING LLC	14-Nov-19	IRWD Check	1,215.76	Reconciled
403975	ROYAL WHOLESALE ELECTRIC	14-Nov-19	IRWD Check	5,112.72	Reconciled
403976	SAFETY CENTER INCORPORATED	14-Nov-19	IRWD Check	5,740.00	Reconciled
403977	SAN DIEGO FLUID SYSTEM TECH	14-Nov-19	IRWD Check	1,025.47	Reconciled
403978	SANTA ANA BLUE PRINT	14-Nov-19	IRWD Check	1,288.90	Reconciled
403979	SANTA MARGARITA FORD	14-Nov-19	IRWD Check	84.34	Reconciled
403980	SCHEETZ, LARRY	14-Nov-19	IRWD Check	47.86	Reconciled
403981	SCHULER CONSTRUCTORS, INC.	14-Nov-19	IRWD Check	13,182.96	Reconciled
403982	SERLES, LORI	14-Nov-19	IRWD Check	57.7	Reconciled
403983	SHAMROCK SUPPLY CO INC	14-Nov-19	IRWD Check	623.92	Reconciled
403984	SHOETERIA	14-Nov-19	IRWD Check	5,767.02	Reconciled
403985	SNYDER LANGSTON L.P.	14-Nov-19	IRWD Check	1,000.06	Negotiable
403986	SOUTH COAST WATER CO.	14-Nov-19	IRWD Check	90	Reconciled
403987	SOUTHERN CALIFORNIA EDISON COMPANY	14-Nov-19	IRWD Check	71.07	Reconciled
403988	SOUTHERN CALIFORNIA EDISON COMPANY	14-Nov-19	IRWD Check	41,839.32	Reconciled
403989	SOUTHERN CALIFORNIA GAS COMPANY	14-Nov-19	IRWD Check	5,723.13	Reconciled
403990	SOUTHWEST VALVE & EQUIPMENT	14-Nov-19	IRWD Check	1,621.54	Reconciled
403991	SPARKLETTS	14-Nov-19	IRWD Check	317.22	Reconciled
403992	SPATIAL WAVE, INC.	14-Nov-19	IRWD Check	33,960.00	Reconciled
403993	STAUFFER, DANIEL	14-Nov-19	IRWD Check	25.02	Reconciled
403994	STREAKWAVE WIRELESS, INC.	14-Nov-19	IRWD Check	6,196.37	Reconciled
403995	SUEZ TREATMENT SOLUTIONS INC.	14-Nov-19	IRWD Check	2,248.37	Reconciled
403996	TAN, MICHELLE	14-Nov-19	IRWD Check	34.66	Reconciled
403997	TANG, XING YU	14-Nov-19	IRWD Check	56.04	Negotiable
403998	TASSIN SCIENTIFIC SERVICES, LLC.	14-Nov-19	IRWD Check	1,270.70	Reconciled
403999	TETRA TECH, INC	14-Nov-19	IRWD Check	1,850.00	Reconciled
404000	TEVORA BUSINESS SOLUTIONS, INC.	14-Nov-19	IRWD Check	1,464.99	Negotiable
404001	THE PARKLANDS	14-Nov-19	IRWD Check	69.17	Negotiable
404002	THOMAS HARDER & CO	14-Nov-19	IRWD Check	7,432.50	Negotiable
404003	TOLL BROS., INC.	14-Nov-19	IRWD Check	169.62	Reconciled
404004	TOTAL RESOURCE MANAGEMENT, INC.	14-Nov-19	IRWD Check	22,378.18	Reconciled
404005	TRI POINTE HOMES, INC.	14-Nov-19	IRWD Check	149.9	Reconciled
404006	TROPICAL PLAZA NURSERY INC	14-Nov-19	IRWD Check	3,385.00	Reconciled
404007	TSURUNO, MASAYA	14-Nov-19	IRWD Check	35.74	Negotiable
404008	TURTLE ROCK PARK & RECREATION	14-Nov-19	IRWD Check	396.68	Negotiable
404009	UNIVAR SOLUTIONS USA INC.	14-Nov-19	IRWD Check	3,638.00	Reconciled
404010	VERTECH INDUSTRIAL SYSTEMS, LLC	14-Nov-19	IRWD Check	5,597.55	Reconciled
404011	WANG, AIPING	14-Nov-19	IRWD Check	121.8	Reconciled
404012	WANG, SIJIAN	14-Nov-19	IRWD Check	22.77	Reconciled
404013	WATERSMART SOFTWARE, INC	14-Nov-19	IRWD Check	13,597.50	Reconciled
404014	WAXIE'S ENTERPRISES, INC	14-Nov-19	IRWD Check	180.32	Reconciled
404015	WECK LABORATORIES INC	14-Nov-19	IRWD Check	2,650.00	Negotiable
404016	WESTAMERICA COMMUNICATIONS, INC.	14-Nov-19	IRWD Check	592.5	Reconciled
404017	WIRELESS WATCHDOGS, LLC	14-Nov-19	IRWD Check	1,264.00	Reconciled
404018	WORKFORCE SAFETY LLC	14-Nov-19	IRWD Check	1,500.00	Negotiable
404019	XUE, HAILONG	14-Nov-19	IRWD Check	1,229.63	Negotiable
404020	YORK INSURANCE SERVICES GROUP INC - CA	14-Nov-19	IRWD Check	8,175.50	Reconciled
404021	YSI, INC	14-Nov-19	IRWD Check	4,350.59	Reconciled
404022	ZHANG, YU	14-Nov-19	IRWD Check	61.52	Negotiable
404023	Kulick, Michael	14-Nov-19	IRWD Check	170	Reconciled
404024	Cano, Marco T (Marco)	14-Nov-19	IRWD Check	120	Negotiable
404025	COUNTY OF ORANGE	18-Nov-19	IRWD Check	5,162.00	Negotiable
404026	JCI JONES CHEMICALS INC	18-Nov-19	IRWD Check	2,504.17	Reconciled
404027	JCI JONES CHEMICALS INC	18-Nov-19	IRWD Check	3,227.73	Reconciled
404028	Hansen, Casey	21-Nov-19	IRWD Check	125	Negotiable
404029	Koenig, Timothy (Tim)	21-Nov-19	IRWD Check	9.16	Negotiable
404030	LaMar, Steven E	21-Nov-19	IRWD Check	169.86	Reconciled
404031	Lin, Eileen (Eileen)	21-Nov-19	IRWD Check	28.65	Reconciled

**IRVINE RANCH WATER DISTRICT  
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<b>CHECK OR ELECTRONIC #</b>	<b>SUPPLIERS</b>	<b>PAYMENT DATE</b>	<b>PAYMENT METHOD</b>	<b>PAYMENT AMOUNT</b>	<b>STATUS</b>
404032	Matheis, Mary Aileen	21-Nov-19	IRWD Check	686.15	Reconciled
404033	Oldewage, Lars D (Lars)	21-Nov-19	IRWD Check	136.69	Reconciled
404034	Reinhart, Douglas J	21-Nov-19	IRWD Check	959.85	Reconciled
404035	Rutherford, Allan	21-Nov-19	IRWD Check	192	Reconciled
404036	COUNTY OF RIVERSIDE	21-Nov-19	IRWD Check	100,161.08	Negotiable
404037	COUNTY OF RIVERSIDE	21-Nov-19	IRWD Check	106,322.12	Negotiable
404038	COUNTY OF RIVERSIDE	21-Nov-19	IRWD Check	79,541.34	Negotiable
404039	COUNTY OF RIVERSIDE	21-Nov-19	IRWD Check	154,882.72	Negotiable
404040	ABC ICEHOUSE, INC.	21-Nov-19	IRWD Check	250.08	Negotiable
404041	AEGIS ENGINEERING MANAGEMENT, INC.	21-Nov-19	IRWD Check	42,502.00	Negotiable
404042	AGILENT TECHNOLOGIES, INC.	21-Nov-19	IRWD Check	197.17	Reconciled
404043	AIRGAS, INC.	21-Nov-19	IRWD Check	1,503.10	Reconciled
404044	AMAZON CAPITAL SERVICES, INC.	21-Nov-19	IRWD Check	1,398.86	Reconciled
404045	AMERICAN GEOTECHNICAL, INC.	21-Nov-19	IRWD Check	4,585.00	Reconciled
404046	AMERICAN TRAINING RESOURCES, INC	21-Nov-19	IRWD Check	3,178.63	Reconciled
404047	ANDERSONPENNA PARTNERS, INC	21-Nov-19	IRWD Check	65,164.50	Negotiable
404048	ANDREW LAURENCE CLAPP	21-Nov-19	IRWD Check	5,518.38	Negotiable
404049	APEX SYSTEMS, LLC	21-Nov-19	IRWD Check	2,080.00	Reconciled
404050	AT&T	21-Nov-19	IRWD Check	173.55	Reconciled
404051	AT&T	21-Nov-19	IRWD Check	12,835.57	Reconciled
404052	ATHENS SERVICES	21-Nov-19	IRWD Check	10,557.07	Negotiable
404053	AVISTA TECHNOLOGIES, INC	21-Nov-19	IRWD Check	16,990.23	Negotiable
404054	B & K ELECTRIC WHOLESALE	21-Nov-19	IRWD Check	9,036.46	Reconciled
404055	BATTERIES PLUS AND BATTERIES PLUS BULBS	21-Nov-19	IRWD Check	503.48	Reconciled
404056	BELL TOWER FLORIST & GIFTS	21-Nov-19	IRWD Check	576.42	Reconciled
404057	BELLEWICK COMMUNITY ASSOCIATION	21-Nov-19	IRWD Check	220	Negotiable
404058	BERK, SUSAN	21-Nov-19	IRWD Check	5,000.00	Negotiable
404059	BEST DRILLING AND PUMP, INC.	21-Nov-19	IRWD Check	379,145.00	Negotiable
404060	BIANCHI, LIZ	21-Nov-19	IRWD Check	185.95	Negotiable
404061	BLAIRS TOWING INC	21-Nov-19	IRWD Check	65	Negotiable
404062	BORCHARD SURVEYING & MAPPING, INC.	21-Nov-19	IRWD Check	2,820.00	Reconciled
404063	BRIAN HOMSY	21-Nov-19	IRWD Check	3,501.88	Negotiable
404064	BROOKFIELD HOMES SO. CALIF LLC	21-Nov-19	IRWD Check	178.53	Reconciled
404065	BUSH & ASSOCIATES INC	21-Nov-19	IRWD Check	3,020.00	Negotiable
404066	C WELLS PIPELINE MATERIALS INC	21-Nov-19	IRWD Check	2,607.34	Reconciled
404067	CALIFORNIA BARRICADE RENTAL, INC.	21-Nov-19	IRWD Check	11,800.03	Negotiable
404068	CALINGASAN, WILLY	21-Nov-19	IRWD Check	55.03	Reconciled
404069	CANON FINANCIAL SERVICES, INC	21-Nov-19	IRWD Check	8,398.83	Reconciled
404070	CASHSTAR INC	21-Nov-19	IRWD Check	30,240.00	Negotiable
404071	CHEM TECH INTERNATIONAL INC	21-Nov-19	IRWD Check	2,841.42	Negotiable
404072	CHEN, XUANLIN	21-Nov-19	IRWD Check	28.18	Negotiable
404073	CHEN, YAN	21-Nov-19	IRWD Check	28.13	Negotiable
404074	CITY OF IRVINE	21-Nov-19	IRWD Check	67,172.71	Reconciled
404075	CITY OF NEWPORT BEACH	21-Nov-19	IRWD Check	596	Negotiable
404076	CITY OF NEWPORT BEACH	21-Nov-19	IRWD Check	1,291.80	Reconciled
404077	CITY OF SANTA ANA	21-Nov-19	IRWD Check	138.97	Reconciled
404078	CONSTELLATION NEWENERGY, INC.	21-Nov-19	IRWD Check	1,158.61	Negotiable
404079	COUNTY OF ORANGE	21-Nov-19	IRWD Check	1,430.92	Negotiable
404080	COUNTY OF RIVERSIDE	21-Nov-19	IRWD Check	102,579.92	Negotiable
404081	CR & R INCORPORATED	21-Nov-19	IRWD Check	494.62	Reconciled
404082	CRAMER FISH SCIENCES	21-Nov-19	IRWD Check	1,687.50	Reconciled
404083	CRESCENT CHEMICAL CO.	21-Nov-19	IRWD Check	104.06	Reconciled
404084	D & H WATER SYSTEMS INC.	21-Nov-19	IRWD Check	558.38	Reconciled
404085	DATA CLEAN CORPORATION	21-Nov-19	IRWD Check	554	Negotiable
404086	DAVIS, TABATHA	21-Nov-19	IRWD Check	92.32	Reconciled
404087	DDB ENGINEERING, INC.	21-Nov-19	IRWD Check	2,673.12	Reconciled
404088	DE VAUL PAINT COMPANY	21-Nov-19	IRWD Check	230.64	Reconciled
404089	DEALERS SERVICE, INC	21-Nov-19	IRWD Check	966.8	Reconciled
404090	DEMARIA ELECTRIC MOTOR SERVICES, INC.	21-Nov-19	IRWD Check	11,782.19	Negotiable
404091	DG INVESTMENT INTERMEDIATE HOLDINGS 2, INC.	21-Nov-19	IRWD Check	4,618.36	Reconciled
404092	DILYTICS INC	21-Nov-19	IRWD Check	4,100.00	Negotiable
404093	DIRECTV INC	21-Nov-19	IRWD Check	131.98	Reconciled
404094	DIVERSIFIED COMMUNICATIONS SERVICES, INC.	21-Nov-19	IRWD Check	6,414.89	Negotiable
404095	EDWARDS LIFESCIENCES	21-Nov-19	IRWD Check	350.12	Negotiable
404096	ENVIRONMENTAL RESOURCE ASSOCIATES	21-Nov-19	IRWD Check	142.85	Negotiable
404097	EUROFINS EATON ANALYTICAL, INC.	21-Nov-19	IRWD Check	740.25	Negotiable
404098	EVANTEC CORPORATION	21-Nov-19	IRWD Check	28.02	Reconciled
404099	FEDEX	21-Nov-19	IRWD Check	233.35	Negotiable
404100	FERGUSON ENTERPRISES, LLC	21-Nov-19	IRWD Check	1,934.07	Reconciled
404101	FIONA HUTTON & ASSOCIATES, INC.	21-Nov-19	IRWD Check	26,336.06	Negotiable

**IRVINE RANCH WATER DISTRICT  
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404102	FIRE EXTINGUISHING SAFETY & SERVICE	21-Nov-19	IRWD Check	739.24	Reconciled
404103	FISHER SCIENTIFIC COMPANY LLC	21-Nov-19	IRWD Check	3,026.49	Reconciled
404104	FROELICH, JOSE	21-Nov-19	IRWD Check	67.94	Reconciled
404105	FRONTIER CALIFORNIA INC.	21-Nov-19	IRWD Check	515.61	Reconciled
404106	GANAHL LUMBER CO.	21-Nov-19	IRWD Check	1,522.36	Negotiable
404107	GRAINGER	21-Nov-19	IRWD Check	5,930.30	Reconciled
404108	GRAYBAR ELECTRIC COMPANY	21-Nov-19	IRWD Check	1,501.21	Reconciled
404109	GRISWOLD, SHANE	21-Nov-19	IRWD Check	627.44	Reconciled
404110	HAAKER EQUIPMENT COMPANY	21-Nov-19	IRWD Check	430,514.05	Negotiable
404111	HACH COMPANY	21-Nov-19	IRWD Check	2,057.91	Reconciled
404112	HARBOR ALL GLASS & MIRROR INC.	21-Nov-19	IRWD Check	1,598.56	Negotiable
404113	HARRINGTON INDUSTRIAL PLASTICS LLC	21-Nov-19	IRWD Check	664.22	Reconciled
404114	HELPMATES STAFFING SERVICES	21-Nov-19	IRWD Check	13,930.39	Reconciled
404115	HGCPM, INC	21-Nov-19	IRWD Check	8,308.38	Reconciled
404116	HILL BROTHERS CHEMICAL COMPANY	21-Nov-19	IRWD Check	19,220.49	Negotiable
404117	HOME DEPOT USA INC	21-Nov-19	IRWD Check	1,031.61	Reconciled
404118	INDUSTRIAL METAL SUPPLY CO	21-Nov-19	IRWD Check	114.07	Reconciled
404119	INFOSEND, INC.	21-Nov-19	IRWD Check	21,495.00	Reconciled
404120	INSITUFORM TECHNOLOGIES INC	21-Nov-19	IRWD Check	114,599.29	Negotiable
404121	INTRACORP SOUTHERN CALIFORNIA, LLC	21-Nov-19	IRWD Check	687.06	Negotiable
404122	IRVINE PIPE & SUPPLY INC	21-Nov-19	IRWD Check	594.99	Reconciled
404123	IRVINE PROPERTY MANAGEMENT	21-Nov-19	IRWD Check	18.31	Negotiable
404124	IRWD-PETTY CASH CUSTODIAN	21-Nov-19	IRWD Check	915.93	Reconciled
404125	J M ELECTRICAL SERVICES	21-Nov-19	IRWD Check	5,200.00	Negotiable
404126	JHAMB, GINNEY	21-Nov-19	IRWD Check	40.02	Negotiable
404127	JOEY SOTO	21-Nov-19	IRWD Check	2,739.00	Negotiable
404128	JUST ENERGY SOLUTIONS INC.	21-Nov-19	IRWD Check	434.56	Reconciled
404129	KB HOMES	21-Nov-19	IRWD Check	76.36	Negotiable
404130	KERN COUNTY TREASURER TAX COLLECTOR	21-Nov-19	IRWD Check	83,934.56	Reconciled
404131	KEY INFORMATION SYSTEMS, INC.	21-Nov-19	IRWD Check	2,050.00	Reconciled
404132	LANDCARE HOLDINGS, INC.	21-Nov-19	IRWD Check	42,728.00	Negotiable
404133	LCS TECHNOLOGIES, INC.	21-Nov-19	IRWD Check	5,400.00	Reconciled
404134	LEE & RO, INC.	21-Nov-19	IRWD Check	973	Reconciled
404135	LENNAR HOMES	21-Nov-19	IRWD Check	212.51	Reconciled
404136	MAP COMMUNICATIONS, INC.	21-Nov-19	IRWD Check	964.51	Negotiable
404137	MC FADDEN-DALE INDUSTRIAL	21-Nov-19	IRWD Check	86.85	Reconciled
404138	MICHAEL BAKER INTERNATIONAL, INC.	21-Nov-19	IRWD Check	25,773.70	Negotiable
404139	MICROSOFT CORPORATION	21-Nov-19	IRWD Check	374.6	Negotiable
404140	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	21-Nov-19	IRWD Check	3,111.37	Reconciled
404141	NEWAGE INDUSTRIES INC	21-Nov-19	IRWD Check	540.64	Negotiable
404142	NINYO & MOORE	21-Nov-19	IRWD Check	5,030.84	Reconciled
404143	NV5, INC.	21-Nov-19	IRWD Check	24,080.00	Negotiable
404144	OLIN CORPORATION	21-Nov-19	IRWD Check	18,509.34	Negotiable
404145	OLSON, HAGEL & FISHBURN, LLP	21-Nov-19	IRWD Check	723	Reconciled
404146	OMAR DANDASHI	21-Nov-19	IRWD Check	450	Negotiable
404147	ORANGE COUNTY AUTO PARTS CO	21-Nov-19	IRWD Check	1,181.00	Reconciled
404148	ORANGE COUNTY MATTRESS	21-Nov-19	IRWD Check	49.51	Reconciled
404149	ORANGE COUNTY SANITATION DISTRICT	21-Nov-19	IRWD Check	45.82	Reconciled
404150	OUTSOURCE TECHNICAL LLC	21-Nov-19	IRWD Check	9,941.25	Reconciled
404151	PACIFIC HYDROTECH CORPORATION	21-Nov-19	IRWD Check	591,521.30	Negotiable
404152	PACIFIC HYDROTECH CORPORATION	21-Nov-19	IRWD Check	31,132.70	Negotiable
404153	PAULUS ENGINEERING, INC.	21-Nov-19	IRWD Check	20,714.79	Reconciled
404154	PINNACLE TOWERS LLC	21-Nov-19	IRWD Check	749.21	Reconciled
404155	PMC ENGINEERING LLC.	21-Nov-19	IRWD Check	4,455.57	Negotiable
404156	PRO MOBILE AUTO DETAILING	21-Nov-19	IRWD Check	900	Negotiable
404157	PSOMAS	21-Nov-19	IRWD Check	855	Negotiable
404158	QUINTANA, WATTS & HARTMANN, LLC	21-Nov-19	IRWD Check	5,000.00	Reconciled
404159	RAM AIR ENGINEERING INC	21-Nov-19	IRWD Check	6,990.00	Negotiable
404160	RANCHO ALISAL APTS	21-Nov-19	IRWD Check	407.05	Negotiable
404161	RANCHO MARIPOSA APTS	21-Nov-19	IRWD Check	872.25	Negotiable
404162	REACH EMPLOYEE ASSISTANCE INC	21-Nov-19	IRWD Check	2,161.60	Reconciled
404163	REFRIGERATION SUPPLIES DISTRIBUTOR	21-Nov-19	IRWD Check	205.85	Reconciled
404164	RELAX IN STYLE, LLC	21-Nov-19	IRWD Check	186.15	Negotiable
404165	RENTOKIL NORTH AMERICA, INC	21-Nov-19	IRWD Check	8,994.00	Negotiable
404166	RESILIENT COMMUNICATIONS INC.	21-Nov-19	IRWD Check	3,929.94	Negotiable
404167	ROBERTS ROOFING INC	21-Nov-19	IRWD Check	11,400.00	Reconciled
404168	ROCCO, CARLO	21-Nov-19	IRWD Check	414.6	Reconciled
404169	SAN DIEGO FLUID SYSTEM TECH	21-Nov-19	IRWD Check	87.68	Reconciled
404170	SANTA ANA BLUE PRINT	21-Nov-19	IRWD Check	4,847.17	Reconciled
404171	SANTA MARGARITA FORD	21-Nov-19	IRWD Check	1,952.01	Reconciled

**IRVINE RANCH WATER DISTRICT  
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404172	SECURITAS SECURITY SERVICES USA, INC.	21-Nov-19	IRWD Check	63,595.19	Negotiable
404173	SERRANO WATER DISTRICT	21-Nov-19	IRWD Check	7,979.73	Reconciled
404174	SEUNGHEE HUR AND BYONGSE KIM	21-Nov-19	IRWD Check	2,258.51	Negotiable
404175	SHAMROCK SUPPLY CO INC	21-Nov-19	IRWD Check	1,616.47	Reconciled
404176	SOUTH COAST WATER DISTRICT	21-Nov-19	IRWD Check	3,856.13	Negotiable
404177	SOUTHERN CALIFORNIA EDISON COMPANY	21-Nov-19	IRWD Check	50.31	Reconciled
404178	SOUTHERN CALIFORNIA EDISON COMPANY	21-Nov-19	IRWD Check	459,202.23	Reconciled
404179	SOUTHERN CALIFORNIA GAS COMPANY	21-Nov-19	IRWD Check	1,531.70	Negotiable
404180	SOUTHWEST VALVE & EQUIPMENT	21-Nov-19	IRWD Check	8,469.85	Reconciled
404181	SPARKLETTS	21-Nov-19	IRWD Check	54.84	Negotiable
404182	SPARLING INSTRUMENTS LLC	21-Nov-19	IRWD Check	762.98	Reconciled
404183	SPATIAL WAVE, INC.	21-Nov-19	IRWD Check	3,264.00	Reconciled
404184	STANTEC CONSULTING SERVICES INC.	21-Nov-19	IRWD Check	4,061.00	Reconciled
404185	STATE WATER RESOURCES CONTROL BOARD	21-Nov-19	IRWD Check	255,254.00	Negotiable
404186	STATE WATER RESOURCES CONTROL BOARD	21-Nov-19	IRWD Check	1,311.83	Negotiable
404187	STETSON ENGINEERS INC.	21-Nov-19	IRWD Check	9,195.00	Reconciled
404188	SUEZ TREATMENT SOLUTIONS INC.	21-Nov-19	IRWD Check	8,407.43	Reconciled
404189	SUKLE ADVERTISING INC.	21-Nov-19	IRWD Check	22,880.60	Negotiable
404190	TETRA TECH, INC	21-Nov-19	IRWD Check	21,733.75	Negotiable
404191	THERMO ELECTRON NORTH AMERICA LLC	21-Nov-19	IRWD Check	1,043.79	Reconciled
404192	THOMPSON INDUSTRIAL SUPPLY	21-Nov-19	IRWD Check	84.43	Negotiable
404193	TIC-IHC VENTURE LLC	21-Nov-19	IRWD Check	249.8	Reconciled
404194	TIC-RETAIL PROPERTIES	21-Nov-19	IRWD Check	107.27	Reconciled
404195	TIC-SPECTRUM OFFICE	21-Nov-19	IRWD Check	720.51	Reconciled
404196	TRAN, TIEN	21-Nov-19	IRWD Check	302.08	Negotiable
404197	TRIMOVA, ZHULDYZ	21-Nov-19	IRWD Check	23.01	Negotiable
404198	TRIPAC MARKETING INC	21-Nov-19	IRWD Check	1,583.74	Reconciled
404199	TROPICAL PLAZA NURSERY INC	21-Nov-19	IRWD Check	21,077.21	Reconciled
404200	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	21-Nov-19	IRWD Check	1,684.75	Negotiable
404201	UNITED PARCEL SERVICE INC	21-Nov-19	IRWD Check	120.34	Reconciled
404202	UNIVAR SOLUTIONS USA INC.	21-Nov-19	IRWD Check	4,516.00	Reconciled
404203	USA BLUEBOOK	21-Nov-19	IRWD Check	1,114.32	Negotiable
404204	V&A CONSULTING ENGINEERS	21-Nov-19	IRWD Check	3,291.50	Negotiable
404205	VAUGHAN'S INDUSTRIAL REPAIR CO INC	21-Nov-19	IRWD Check	54,421.75	Negotiable
404206	VWR INTERNATIONAL, LLC	21-Nov-19	IRWD Check	590.45	Reconciled
404207	WALTERS WHOLESALE ELECTRIC	21-Nov-19	IRWD Check	2,462.58	Reconciled
404208	WATEREUSE ASSOCIATION	21-Nov-19	IRWD Check	10,298.75	Negotiable
404209	WATERLINE TECHNOLOGIES INC	21-Nov-19	IRWD Check	1,251.00	Reconciled
404210	WAXIE'S ENTERPRISES, INC	21-Nov-19	IRWD Check	2,691.34	Reconciled
404211	WECK LABORATORIES INC	21-Nov-19	IRWD Check	1,350.00	Negotiable
404212	WEST COAST SAFETY SUPPLY INC	21-Nov-19	IRWD Check	14,577.28	Negotiable
404213	WHITE, TOM	21-Nov-19	IRWD Check	370.53	Negotiable
404214	YALE/CHASE EQUIPMENT AND SERVICES, INC.	21-Nov-19	IRWD Check	312.64	Negotiable
404215	YIM, JOSHUA	21-Nov-19	IRWD Check	2.73	Negotiable
404216	ZEBRON CONTRACTING INC	21-Nov-19	IRWD Check	22,290.00	Negotiable
404217	FRANCHISE TAX BOARD	22-Nov-19	IRWD Check	630	Negotiable
404218	INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 47	22-Nov-19	IRWD Check	2,494.98	Negotiable
404219	STATE OF CALIFORNIA, EDD	22-Nov-19	IRWD Check	75	Reconciled
404220	ORANGE COUNTY SHERIFF'S OFFICE	22-Nov-19	IRWD Check	62.5	Negotiable
404221	PERS LONG TERM CARE	22-Nov-19	IRWD Check	538.89	Negotiable
404222	MARINA LANDSCAPE, INC.	22-Nov-19	IRWD Check	3,796.72	Reconciled
404223	ANTHEM BLUE CROSS	22-Nov-19	IRWD Check	234.65	Negotiable
404224	OMAR DANDASHI	22-Nov-19	IRWD Check	1,395.00	Negotiable
<b>SUB-TOTAL CHECK DISBURSEMENTS</b>				<b>9,766,155.37</b>	
13459	CHARD SNYDER & ASSOCIATES, INC.	4-Nov-19	IRWD Wire	19,301.05	Negotiable
13460	CHARD SNYDER & ASSOCIATES, INC.	4-Nov-19	IRWD Wire	3,898.59	Negotiable
13461	YORK INSURANCE SERVICES GROUP INC - CA	5-Nov-19	IRWD Wire	5,111.52	Negotiable
13462	BANK OF NEW YORK MELLON TRUST COMPANY NA	7-Nov-19	IRWD Wire	67,968.75	Negotiable
13463	BANK OF NEW YORK MELLON TRUST COMPANY NA	8-Nov-19	IRWD Wire	88,243.83	Negotiable
13464	U.S. BANK NATIONAL ASSOCIATION	8-Nov-19	IRWD Wire	44,979.42	Negotiable
13465	BANK OF AMERICA	8-Nov-19	IRWD Wire	44,617.84	Negotiable
13466	CALPERS	8-Nov-19	IRWD Wire	1,231.46	Negotiable
13467	INTERNAL REVENUE SERVICE	11-Nov-19	IRWD Wire	217,361.85	Negotiable
13468	FRANCHISE TAX BOARD	11-Nov-19	IRWD Wire	67,842.81	Negotiable
13469	EMPLOYMENT DEVELOPMENT DEPARTMENT	11-Nov-19	IRWD Wire	11,731.45	Negotiable
13470	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	11-Nov-19	IRWD Wire	3,026.42	Negotiable
13471	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	11-Nov-19	IRWD Wire	156,176.51	Negotiable
13472	EMPLOYMENT DEVELOPMENT DEPARTMENT	11-Nov-19	IRWD Wire	3,127.26	Negotiable
13473	CHARD SNYDER & ASSOCIATES, INC.	12-Nov-19	IRWD Wire	19,923.44	Negotiable

**IRVINE RANCH WATER DISTRICT  
AP DISBURSEMENTS AND VOIDS FOR NOVEMBER 2019**

<b>CHECK OR ELECTRONIC #</b>	<b>SUPPLIERS</b>	<b>PAYMENT DATE</b>	<b>PAYMENT METHOD</b>	<b>PAYMENT AMOUNT</b>	<b>STATUS</b>
13474	CHARD SNYDER & ASSOCIATES, INC.	12-Nov-19	IRWD Wire	1,895.27	Negotiable
13475	YORK INSURANCE SERVICES GROUP INC - CA	12-Nov-19	IRWD Wire	4,291.73	Negotiable
13476	ORANGE COUNTY SANITATION DISTRICT	15-Nov-19	IRWD Wire	1,641,898.75	Negotiable
13477	ORANGE COUNTY SANITATION DISTRICT	15-Nov-19	IRWD Wire	1,205,525.62	Negotiable
13478	CALPERS	14-Nov-19	IRWD Wire	518,610.63	Negotiable
13479	CALPERS	14-Nov-19	IRWD Wire	2,892.23	Negotiable
13480	BANK OF NEW YORK MELLON TRUST COMPANY NA	20-Nov-19	IRWD Wire	38,490.44	Negotiable
13481	U.S. BANK NATIONAL ASSOCIATION	20-Nov-19	IRWD Wire	23,268.01	Negotiable
13482	SUMITOMO MITSUI BANKING CORPORATION	20-Nov-19	IRWD Wire	44,805.62	Negotiable
13483	CHARD SNYDER & ASSOCIATES, INC.	22-Nov-19	IRWD Wire	440.49	Negotiable
13484	CHARD SNYDER & ASSOCIATES, INC.	22-Nov-19	IRWD Wire	2,118.86	Negotiable
13485	U.S. BANK NATIONAL ASSOCIATION	22-Nov-19	IRWD Wire	7,559.42	Negotiable
13486	CHARD SNYDER & ASSOCIATES, INC.	22-Nov-19	IRWD Wire	1,444.15	Negotiable
13487	INTERNAL REVENUE SERVICE	22-Nov-19	IRWD Wire	277,259.68	Negotiable
13488	FRANCHISE TAX BOARD	22-Nov-19	IRWD Wire	85,594.45	Negotiable
13489	EMPLOYMENT DEVELOPMENT DEPARTMENT	22-Nov-19	IRWD Wire	12,306.30	Negotiable
13490	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	22-Nov-19	IRWD Wire	3,026.42	Negotiable
13491	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	22-Nov-19	IRWD Wire	210,791.03	Negotiable
13492	CALPERS	22-Nov-19	IRWD Wire	24.4	Negotiable
13493	CALPERS	22-Nov-19	IRWD Wire	229,485.90	Negotiable
13494	CALPERS	25-Nov-19	IRWD Wire	230,966.51	Negotiable
13495	FILANC-BALFOUR BEATTY JV	25-Nov-19	IRWD Wire	214,520.93	Negotiable
13496	YORK INSURANCE SERVICES GROUP INC - CA	25-Nov-19	IRWD Wire	9,204.70	Negotiable
13497	CHARD SNYDER & ASSOCIATES, INC.	25-Nov-19	IRWD Wire	5,610.54	Negotiable
13498	CHARD SNYDER & ASSOCIATES, INC.	25-Nov-19	IRWD Wire	3,870.53	Negotiable
13499	BANK OF NEW YORK MELLON TRUST COMPANY NA	26-Nov-19	IRWD Wire	40,217.39	Negotiable
13500	BANK OF NEW YORK MELLON TRUST COMPANY NA	26-Nov-19	IRWD Wire	43,541.67	Negotiable
13501	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	26-Nov-19	IRWD Wire	2,682,176.26	Negotiable
13502	YORK INSURANCE SERVICES GROUP INC - CA	26-Nov-19	IRWD Wire	7,005.66	Negotiable
13503	SELVAN, PRADEEP	26-Nov-19	IRWD Wire	29.99	Negotiable
13504	LENNAR HOMES	27-Nov-19	IRWD Wire	1,132,901.96	Negotiable
<b>SUB-TOTAL ELECTRONIC DISBURSEMENTS</b>				<b>9,436,317.74</b>	
<b>SUB-TOTAL AP CHECK AND ELECTRONIC DISBURSEMENTS</b>				<b>19,202,473.11</b>	
403747	TABATABAI, MOHAMMED	7-Nov-19	IRWD Check	109.27	Voided
<b>SUB-TOTAL CHECK ISSUED AND VOIDED IN NOVEMBER 2019</b>				<b>109.27</b>	
<b>TOTAL AP DISBURSEMENTS AND VOIDS FOR NOVEMBER 2019</b>				<b>19,202,582.38</b>	

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Exhibit "E"

**MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS**

**November  
2019**

	AMOUNT	VENDOR	PURPOSE
11/8/2019	1,049,004.84	BANK OF AMERICA	ACH Payments for Payroll
11/22/2019	1,309,405.76	BANK OF AMERICA	ACH Payments for Payroll
	<u><b>\$2,358,410.60</b></u>		

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Exhibit "F"


**IRWD Gov Code 53065.5 Disclosure Report**

Payment or Reimbursements for Individual charges of \$100 or more per transaction for services or product received.

01-NOV-19 to 30-NOV-19

NAME	CHECK NO.	CHECK DATE	AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Bennett, Ray	403542	7-Nov-19	180.96	Mileage	Monthly SGMA Meeting - October
Bertsch, Jeff	403800	14-Nov-19	164.82	Other(Misc)	Spare Cisco SFP's Software
Bertsch, Jeff	403800	14-Nov-19	2050.00	Registration Fees	Crowd Strike Cybersecurity Fall Conf., San Diego, CA - Nov. 3-6, 2019
Bertsch, Jeff	403800	14-Nov-19	263.88	Lodging	Crowd Strike Cybersecurity Fall Conf., San Diego, CA - Nov. 3, 2019
Bertsch, Jeff	403800	14-Nov-19	263.88	Lodging	Crowd Strike Cybersecurity Fall Conf., San Diego, CA - Nov. 4, 2019
Bertsch, Jeff	403800	14-Nov-19	263.88	Lodging	Crowd Strike Cybersecurity Fall Conf., San Diego, CA - Nov. 5, 2019
Cano, Marco	404024	14-Nov-19	120.00	Certification Renewal	SWRCB Water Distribution Grade III
Chia, David	403543	7-Nov-19	124.55	Other(Misc)	Safety shoe allowance
Crowe, David	403805	14-Nov-19	120.00	Certification Renewal	SWRCB Water Distribution Grade V
Joseph, Brandon	403550	7-Nov-19	200.00	Certification Renewal	CWEA Collections Systems Maintenance Grade III Exam
Joseph, Brandon	403550	7-Nov-19	185.00	Certification Renewal	CWEA Collections Systems Maintenance Grade II
Kanady, Jacob	403808	14-Nov-19	145.00	Membership Renewal	CWEA membership
Kulick, Michael	404023	14-Nov-19	170.00	Certification Renewal	CWEA Collections Systems Maintenance Grade I
Kwon, Andrew	403551	7-Nov-19	200.00	Other(Misc)	Safety shoe allowance
LaMar, Steve	403809	14-Nov-19	100.34	Other(Misc)	CED Plenary meeting, La Jolla, CA - July 30, 2019 - Mileage
LaMar, Steve	403809	14-Nov-19	255.54	Lodging	CED Plenary meeting, La Jolla, CA - July 30, 2019
Matheis, Mary Aileen	404032	21-Nov-19	269.35	Lodging	Urban Water Institute's Annual Conf., San Diego, CA - Aug. 14, 2019
Matheis, Mary Aileen	404032	21-Nov-19	269.35	Lodging	Urban Water Institute's Annual Conf., San Diego, CA - Aug. 15, 2019
Oldewage, Lars	403555	7-Nov-19	199.00	Membership Renewal	ACS annual membership
Pan, Jenny	403814	14-Nov-19	274.68	Lodging	APP2P Fall 2019 Conf., Scottsdale, AZ - Oct. 15, 2019
Pan, Jenny	403814	14-Nov-19	274.68	Lodging	APP2P Fall 2019 Conf., Scottsdale, AZ - Oct. 16, 2019
Perez, Jesus	403557	7-Nov-19	440.00	Certification Renewal	SWRCB Grade V Wastewater Treatment Plant Operator Exam
Perez, Jesus	403557	7-Nov-19	150.00	Certification Renewal	SWRCB Grade V Wastewater Treatment Plant Operator Exam Fee
Perez, Jesus	403557	7-Nov-19	255.00	Certification Renewal	SWRCB Grade V Wastewater Treatment Plant Operator Certificate
Reinhart, Doug	404034	21-Nov-19	376.75	Lodging	WateReuse 2019 Annual Conf., San Diego, CA - Sept. 10, 2019
Reinhart, Doug	404034	21-Nov-19	269.35	Lodging	Urban Water Institute's Annual Conf., San Diego, CA - Aug. 15, 2019
Rutherford, Allan	404035	21-Nov-19	192.00	Membership Renewal	CWEA membership
Saini, Mohit	403558	7-Nov-19	158.33	Other(Misc)	Meeting supplies
Seesangrit, Melody	403559	7-Nov-19	117.27	Lodging	Water Smart Innovations Conf., Las Vegas, NV - Oct. 2, 2019
<b>Total Amount: \$8,053.61</b>					

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December 16, 2019  
Prepared by: J. Dayer  
Submitted by: R. Mykitta / W. Chambers  
Approved by: Paul A. Cook 

CONSENT CALENDAR

TRUCK-MOUNTED SEWER JETTER CONTRACT AWARD

SUMMARY:

A truck-mounted sewer jetter is utilized to clean and remove material from the IRWD sewer system to ensure that sewage flow is not obstructed. IRWD's existing jetter has reached the end of its useful life and needs to be replaced. Staff recommends the Board authorize the General Manager to execute a contract with Nixon-Egli Equipment Company, Inc. in the amount of \$187,051.38 for the purchase of a 747-TK ECO Truck Jet.

BACKGROUND:

Truck-mounted sewer jettors are equipped with an array of nozzles and other tools that are used to provide effective cleaning of a sewer system under varied conditions. Staff has determined that the 747-TK ECO Truck Jet is the most cost-effective and functional model to meet IRWD's current and future needs. The proposed replacement truck is significantly smaller than the existing truck and will provide more flexibility since it can be used in locations with limited access and work space. The proposal from Nixon-Egli Equipment Company is attached at Exhibit "A". The cost of the smaller truck is \$187,000, which is 50% of the \$374,000 amount previously approved by the Board. Staff recommends the Board authorize the General Manager to execute a contract with Nixon-Egli Equipment Company in the amount of \$187,051.38 for the purchase of one 747-TK ECO Truck Jet.

FISCAL IMPACTS:

Sufficient funds are included in the Fiscal Year 2019-20 Operating Budget.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act (CEQA), Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONTRACT WITH NIXON-EGLI EQUIPMENT COMPANY, INC. IN THE AMOUNT OF \$187,051.38 FOR THE PURCHASE OF ONE 747-TK ECO TRUCK JET.

LIST OF EXHIBITS:

Exhibit "A" – Truck Mounted Sewer Jetter Proposal

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- SO. CALIFORNIA: 2044 South Vineyard Avenue, Ontario, CA 91761 • (909) 930-1822 • FAX (909) 923-2356  
 □ NO. CALIFORNIA: 800 East Grant Line Road, Tracy, CA 95376 • (209) 830-8600 • FAX (209) 830-8884

Irvine Ranch Water District  
 3512 Michelson Drive  
 Irvine, CA 92612

November 12, 2019

Attention: John Dayer

Reference: Quote for (1) 747-TK ECO Jet Truck  
 Contract#: 022014-SCA



Dear Mr. Dayer,

We are pleased to quote you One (1) New 747-TK ECO Truck Mounted High Pressure Sewer Cleaner, Mounted on a New Ford F550 4x4 Gasoline Chassis, as equipped below:

## 747-TK ECO Truck Mounted High Pressure Sewer Cleaner

### Engine & Pump:

3.7L Ford Engine  
 Giant 40 GPM @ 2000 PSI  
 w/30 Min Run Dry Capability  
 Lighted Nema 4 Control Panel  
 Auto Shutdown (For High Engine  
 Temp / Low Oil Pressure)  
 Air Purge Valve  
  
 Painted Steel Shroud Enclosure  
 w/Locking Access Doors  
 Recirculation System  
 Electronic Clutch Engagement  
 Gauge Package (Hour, Tach, Volts,  
 Oil Pressure, & Temp Meters)

### Hose Reel & Hose:

Rotating Safety Reel  
 w/800' Capacity of 3/4" Hose

### Tank & Fill:

700 Gal. Black Super-Poly Water Tank  
 2.5" Fill System

### Truck:

Mounting to Approved Chassis

Mud flaps  
 (1) Aluminum Underbody Toolbox  
 D.O.T. Approved LED Lighting  
 Auxiliary Fuel Tank

### Accessories:

10' Leader Hose  
 BB Hose Guide  
 Tri-Star (Chisel Point) Nozzle  
 DD (High Flow) Nozzle  
 Finned Nozzle Extension  
 Nozzle Rack  
 25' Fill Hose  
 Wash-down Gun w/25' Ext.  
 Hose  
 Upstream Pulley Guide  
 Paper Operator / Owner Manual

### Additional Options Added Into Price:

- Upgrade Water System to Giant 40gpm @ 3000psi plunger style triplex water pump with 30 minute run dry capability.
- Hydraulic pressure gauge
- Upgrade to aluminum shroud
- Automatic level wind with hydraulic up/down action
- Digital smart counter footage meter
- Footage Meter (mounted on jet hose reel)
- 800' sewer hose (3/4" I.D. x 3000 PSI)
- 25' x 3/4" Leader Hose (in lieu of standard 10')
- Upgrade to 1000 gallon Duraporlene (Black) water tank with 10 year warranty
- Hose guide/wash-down gun/upstream pulley guide storage tray
- Long Handled toll storage tube
- Engine water pump compartment light
- LED Flood light
- LED Rotating beacon

- SO. CALIFORNIA: 2044 South Vineyard Avenue, Ontario, CA 91761 • (909) 930-1822 • FAX (909) 923-2356
- NO. CALIFORNIA: 800 East Grant Line Road, Tracy, CA 95376 • (209) 830-8600 • FAX (209) 830-8884

- LED Strobe light
- LED Arrow board
- (3) Additional front opening aluminum tool boxes
- Hand-held wireless 12v/110v rechargeable LED spotlight w/storage bracket
- Wireless remote pendant control (with hose reel F-N-R Control, Throttle up/down, Water on/off, and Kill switch) includes manifold hydraulics
- Rear Back up camera w/ 7" color monitor mounted in cab
- Additional paper operators manual
- USB operator's manual

747-TK ECO:	\$73,509.00
Additional Options:	\$44,036.00
<b>3% Sourcewell Discount:</b>	<b><del>\$(3,526.35)</del></b>
Sales Price with Discount:	\$114,018.65

Ford F550 Gas Chassis:	\$49,565.00
7.75% Sales Tax:	\$12,677.73
<u>Freight, Training, PDI, Registration:</u>	<u>\$10,790.00</u>
<b>Sales Price Total:</b>	<b>\$187,051.38</b>

The above price(s) are valid for 30 days and are plus all applicable tax.

Thank you for the opportunity to quote on your equipment needs. Should you have any further questions, please feel free to contact me.

Sincerely,  
NIXON-EGLI EQUIPMENT CO.

*Tray Hall*

Tray Hall  
Area Manager/Product Specialist  
(213) 806-9173



December 16, 2019  
Prepared by: R. Jacobson  
Submitted by: C. Clary  
Approved by: Paul A. Cook



## CONSENT CALENDAR

### SAND CANYON PROFESSIONAL CENTER PHASE II CONTRACT CHANGE ORDER NO. 8

#### SUMMARY:

The Sand Canyon Professional Center Phase II project includes construction of a 70,000 square-foot for-lease office building and a central outdoor area on land owned by IRWD. Staff recommends the Board authorize the General Manager to execute Contract Change Order No. 8 in the net amount of \$209,900.97 with the project general contractor KPRS Construction Services for Project 06210.

#### BACKGROUND:

Phase II of the Sand Canyon Professional Center includes construction of an approximately 70,000 square-foot professional office building, a central outdoor area, and related site work on land adjacent to IRWD's Sand Canyon building. The medical and professional office combination on the site was recommended in a land use study, and the resulting tenant diversification has been further supported by other local real estate professionals based on zoning, trip allocation constraints and market data for the area.

On October 22, 2018, the Board authorized the General Manager to award a construction contract to KPRS Construction Services in the amount of \$17,992,969 for the project. Construction of the building shell and related site work are expected to be completed in March 2020.

#### Contract Change Order No. 8:

The general contractor for the project has provided a contract change order, which includes additional work and costs, credits and a change to the project completion date based on delays due to weather and required project design modifications and related work. Additional costs and credits required to complete the project include the following:

- An increase in the cost for the contractor's General Conditions for delays related to weather (25 net weather days after deducting the contracted 10-day weather allowance), and delays due to required design modifications and related work (65 days total) since the project's inception in December 2018. Design modifications for critical path items included added roofing joists, beams, required structural support for building HVAC units, changes to the existing onsite water main line, and added / modified gas lines to the building. A detailed listing of critical path impacts is included in Change Order No. 8, which is provided as Exhibit "A". The amount of the increase is \$291,476.13 based on a cost of \$3,170 per day for 90 days;

- A decrease in the cost for removal of a planned living wall in the building lobby including related plumbing and irrigation. The amount of the credit for removing the living wall is \$38,793.85;
- A decrease in the cost due to a change in floor tile type for the building's eight restrooms to a 12" x 24" tile, replacing the original full-size tile pieces required to be shop cut the same size. The amount of the credit is \$23,622.54;
- A net decrease in the cost related to a reduction in the number of pathway bollard light fixtures, which is partially offset by an additional cost for concrete bollard footings not included in the landscape plans. The net amount of the decrease is \$14,305.63; and
- Miscellaneous credits related to a change in the attachment method for exterior stone (\$1,317.95) and a reimbursement of the contractor's fee included in the original bid for the listed amounts credited (\$3,535.19). The total of miscellaneous credits is \$4,853.14.

Staff and the District's construction manager Newport Real Estate Services have reviewed the costs and credits for the change order items and find them to be fair and reasonable. The complete Change Order No. 8 is in the net amount of \$209,900.97.

FISCAL IMPACTS:

Project 06210 is included in the FY 2018-19 Capital Budget with a total budget of \$20,355,630, which includes design, construction, permits / fees and other related costs. Based on the project budget contingency amount, the recommended change order does not require a budget increase. The project is funded by IRWD's Replacement Fund.

ENVIRONMENTAL COMPLIANCE:

A Final Environmental Impact Report has been prepared, certified and the project approved by the County of Orange Environmental Management Agency in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 10, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 8 IN THE AMOUNT OF \$209,900.97 WITH KPRS CONSTRUCTION SERVICES FOR THE SAND CANYON PROFESSIONAL CENTER PHASE II, PROJECT 06210.

LIST OF EXHIBITS:

Exhibit "A" – Contract Change Order No. 8

**CONTRACT CHANGE ORDER**



**Irvine Ranch Water District**

15600 Sand Canyon Avenue  
 P.O. Box 57000  
 Irvine, CA 92619-7000  
 (949) 453-5300

C.O. No. 6 (PCCO8)

Final

Project No. 6210

Sand Canyon Phase II - Professional Office Building

Date: 12/5/2019

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
Please see attached PCCO #8	\$ 209,900.97	\$ -	90
	\$ -	\$ -	
	\$ -	\$ -	
	\$ -	\$ -	
	\$ -	\$ -	
	\$ -	\$ -	
	\$ -	\$ -	
	\$ -	\$ -	
<b>TOTAL</b>	<b>\$ 209,900.97</b>	<b>\$ -</b>	<b>90</b>

DAYS ±

1. NET AMOUNT THIS CHANGE ORDER	=	\$ 209,900.97	90
2. ORIGINAL CONTRACT AMOUNT	=	\$ 17,992,969.00	0
3. TOTAL PREVIOUS CHANGE ORDER(S)	=	\$ 394,345.92	0
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=	\$ 18,387,314.92	0
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=	\$ 18,597,215.89	90

We hereby agree to make the above change subject to the terms of this change order for the sum of: \_\_\_\_\_

Two Hundred Nine Thousand Nine Hundred and 97/100 ----- Dollars

12/4/2019

KPRS

Date

Contractor

By: \_\_\_\_\_

SIGNATURE	DATE	APPROVAL LEVEL REQUIRED
_____	_____	Department Director Approval Required <input type="checkbox"/>
IRWD Engineer or Consulting Engineer	Date	Executive Director Approval Required <input type="checkbox"/>
_____	_____	General Manager Approval Required <input type="checkbox"/>
Engineering Manager	Date	Board Approval Required <input checked="" type="checkbox"/>
_____	_____	
Executive Director of Technical Services	Date	
_____	_____	
General Manager	Date	
		610514
		Purchase Order No.

NOTE: The documents supporting this Change Order, including any drawings and estimates of cost, if required are attached hereto and made a part hereof. This Change Order shall not be considered as such until it has been signed by the Owner and the Contractor. Upon final approval, distribution of copies will be made as required. The parties mutually agree the pricing set forth in this Change Order are complete and fair compensation for the entirety of the work authorized under this Change Order and that no additional compensation is warranted nor shall it be allowed.

CHANGES: All workmanship and materials called for by this Change Order shall be fully in accord with the original Contract Documents insofar as the same may be applied without conflict to the conditions set forth by this Change Order. The time for completing the contract will not be extended unless expressly provided for in this Change Order.



**PCCO #008**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

Project: 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Change Order #008: PCCO #008 = PCO 34R3-35-37-39-41-46**

<b>TO:</b>	<b>Irvine Ranch Water District</b> 15600 Sand Canyon Avenue Irvine, California 92618	<b>FROM:</b>	<b>KPRS Construction Services, Inc</b> 2850 Saturn St Brea California 92821
<b>DATE CREATED:</b>	12/ 04 /2019	<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>CONTRACT STATUS:</b>	Pending - In Review	<b>REVISION:</b>	0
<b>DESIGNATED REVIEWER:</b>		<b>REVIEWED BY:</b>	
<b>DUE DATE:</b>		<b>REVIEW DATE:</b>	
<b>INVOICED DATE:</b>		<b>PAID DATE:</b>	
<b>SCHEDULE IMPACT:</b>	90 days New Completion Date 3-30-2020	<b>EXECUTED:</b>	No
<b>CONTRACT FOR:</b>	218073:Prime Contract	<b>TOTAL AMOUNT:</b>	\$ 209,900.97

**DESCRIPTION:**  
 This change order is for PCO #34R3-35-37-39-41-46 to provide the additional scope of work and or credits as directed by Owner. Please see each individual PCO for specific cost breakdown, inclusions, exclusions and notes as to cost impact and or schedule impact. This specifically changes the schedule completion date from 11-19-2019 to 3-30-2020 and provides additional general conditions coverage for KPRS staff. KPRS agreed to remove the additional security cost.

**ATTACHMENTS:**  
[PCO #035 Credit PFT-1a - Use Bedrosians Chateau Bathroom Floors.pdf](#) [PCO #039 Bulletin #002 Delete Living Wall Landscape & Plumbing Costs Only.pdf](#) [PCO #041 RFI 92-139 & Bulletin 3 Add Footing Reduce Fixture Qty.pdf](#) [PCO #046 Fee Credit 4% PCO 33-35-37-39-41.pdf](#) [PCO #037 Bulletin #2 Exterior Stone Revised Attachment Method.pdf](#) [PCO #034-R3 Schedule Delay Impact - GC & Security Costs PCO 6-10-14-18-24-25-27-31-32-WD #31.pdf](#)

**POTENTIAL CHANGE ORDERS IN THIS CHANGE ORDER:**

PCO #	Title	Schedule Impact	Amount
034	CE #043 - Schedule Delay Impact - General Conditions & Security Cost - PCO 6-10-14-18-24-25-27-31-32-WD #31	90 days	291,476.13
035	CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24		(23,622.54)
037	CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only		(1,317.95)
039	CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only		(38,793.85)
041	CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty		(14,305.63)
046	CE #065 - Fee Credit 4% PCO 33-35-37-39-41		(3,535.19)
<b>TOTAL:</b>			<b>\$ 209,900.97</b>



PCCO #008

The original (Contract Sum)	\$ 17,992,969.17
Net change by previously authorized Change Orders	\$ 394,345.92
The contract sum prior to this Change Order was	\$ 18,387,315.09
The contract sum would be changed by this Change Order in the amount of	\$ 209,900.97
The new contract sum including this Change Order will be	\$ 18,597,216.06
The contract time will be increased by this Change Order by 90 days	

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
Sean Wisner

12-4-2019

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE



KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

Project: 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #034: CE #043 - Schedule Delay Impact - General Conditions & Security Cost - PCO 6-10-14-18-24-25-27-31-32-WD #31**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	034 / 3	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Pending - In Review	<b>CREATED DATE:</b>	8/4 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>	90 days	<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	\$291,476.13

POTENTIAL CHANGE ORDER TITLE: CE #043 - Schedule Delay Impact - General Conditions & Security Cost - PCO 6-10-14-18-24-25-27-31-32-WD #31

CHANGE REASON: Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION: (The Contract Is Changed As Follows)**

CE #043 - Schedule Delay Impact - General Conditions and Security Cost - PCO 6-10-14-18-24-25-27-31-32-WD #31

This additional cost impact is for KPRS General Conditions and security costs only, and are due to contract schedule delay impact caused by PCO 6-10-14-18-24-25-27-31-32 and through WD #31. These schedule delay impacts are due to added scope of work that have impacted the critical path schedule and final completion date. The original contract completion date was 11-19-2019, and the new completion date is shown as 3-31-2020, see attached updated contract schedule. This is a 90 day schedule impact. KPRS is submitting the cost for the 90 as shown on attached updated schedule and cost breakdown as follows:

1. General Conditions cost as previously detailed in PCO #014-R are \$3,170/day x 90 = \$285,300.
2. Security System cost impact, \$369.52/day x 90 = \$33,247.80. Note, Per Project Team Meeting on 11-11-2019, KPRS as part of Global Cost Settlement will Zero Security Cost.

Please note - KPRS excludes any potential cost impact from subcontractors for any delay claims they may submit related to material, labor, staff, management cost impacts or cost increases or associated costs due to delay, and reserves the right to submit them if subcontractors make a claim. Also, KPRS has reduced the total 31 days of rain by the 10 rain days included in contract for a total of 21 days.

**ATTACHMENTS:**

[Contract Schedule Rev PCO 6-10-14-18-24-25-27-31-32-WD31 Delay 3-30-2020.pdf](#)

#	Cost Code	Description	Type	Amount
1	00-7200 - General Conditions	Schedule Delay Impact - General Conditions Cost - PCO 6-10-14-18-24-25-27-31-32- WD31 Delay 90 x \$3,170/day = \$285,300	Other	\$ 285,300.00
2	01-5920 - Security Service	Schedule Delay Impact - Security System Cost - PCO 6-10-14-18-24-25-27-31-32-WD31. Delay 90 days x \$369.42 = \$33,247.80. Per Project Team Meeting on 11-11-2019, KPRS agreed to remove the Security Cost to settle Overall Additional GC Cost Impact. This is a Global Settlement for PCO #034 and GC Cost Above Will Remain as Submitted.	Other	\$ 0.00
<b>Subtotal:</b>				<b>\$285,300.00</b>

<b>KPRS P&amp;P Bond: 1.00% Applies to all line item types.</b>	<b>\$ 2,853.00</b>
<b>KPRS Builders Risk: 0.50% Applies to all line item types.</b>	<b>\$ 1,440.77</b>
<b>KPRS GL Insurance: 0.65% Applies to all line item types.</b>	<b>\$ 1,882.36</b>
<b>Grand Total:</b>	<b>\$291,476.13</b>

**Newport Real Estate Services, Inc.**  
Glen Allen

**Irvine Ranch Water District**  
Paul Cook

**KPRS Construction Services**  
Sean Wisner

\_\_\_\_\_  
SIGNATURE DATE

\_\_\_\_\_  
SIGNATURE DATE

 12-4-2019  
\_\_\_\_\_  
SIGNATURE DATE



## PCO #034-R3 Critical Path Schedule Impact

**PROJECT TITLE:** IRWD Sand Canyon Office Building

**PROJECT NO:** 218073

**SUBJECT:** Critical Path Schedule Impact

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### Critical Path Delay PCO Numbers Included with PCO #034-R3 Schedule Impact:

1. PCO #006 = 4 Days, see schedule update line item #10 dry wet soils.
2. PCO #010 = 7 Days, see schedule update line item #14 WMP bond cost delay for building permit.
3. PCO #014 = 0 Days, KPRS reduced to zero, as this was tracking previous weather delay days that are now accounted for as noted on updated schedule.
4. PCO #018 = 4 Days, see schedule update line item #16 Bulletin #1 plumbing changes.
5. PCO #024 = 15 Days, see schedule update line item #17 added HVAC unit curbs on roof.
6. PCO #025 = 10 Days, see schedule update line item #18 RFI #76 revised roof joist and beam camber.
7. PCO #027 = 10 Days, see schedule update line item #12 on site water main lowering impacted site OX and grading.
8. PCO #031 = 10 Days, see schedule update line item #19 added new gas line to building and lowered existing gas line as it was too shallow and needed to be lowered to allow completion of OX and grading.
9. PCO #032 = 15 Days, see schedule update line item #13 RFI #141 added joist, beams, decking and upgraded material sizing, and joist added supports.
10. Weather Delays #001 Through #031 = 31 Days. KPRS removed the 10 days included in original contract schedule for total of 21 days.

PCO #034-R3 includes total of 90 days for schedule impact for general conditions, based on schedule update. KPRS agreed to drop the cost impact for additional 90 days of security costs in order to resolve overall cost.

Original completion date 11-19-2019

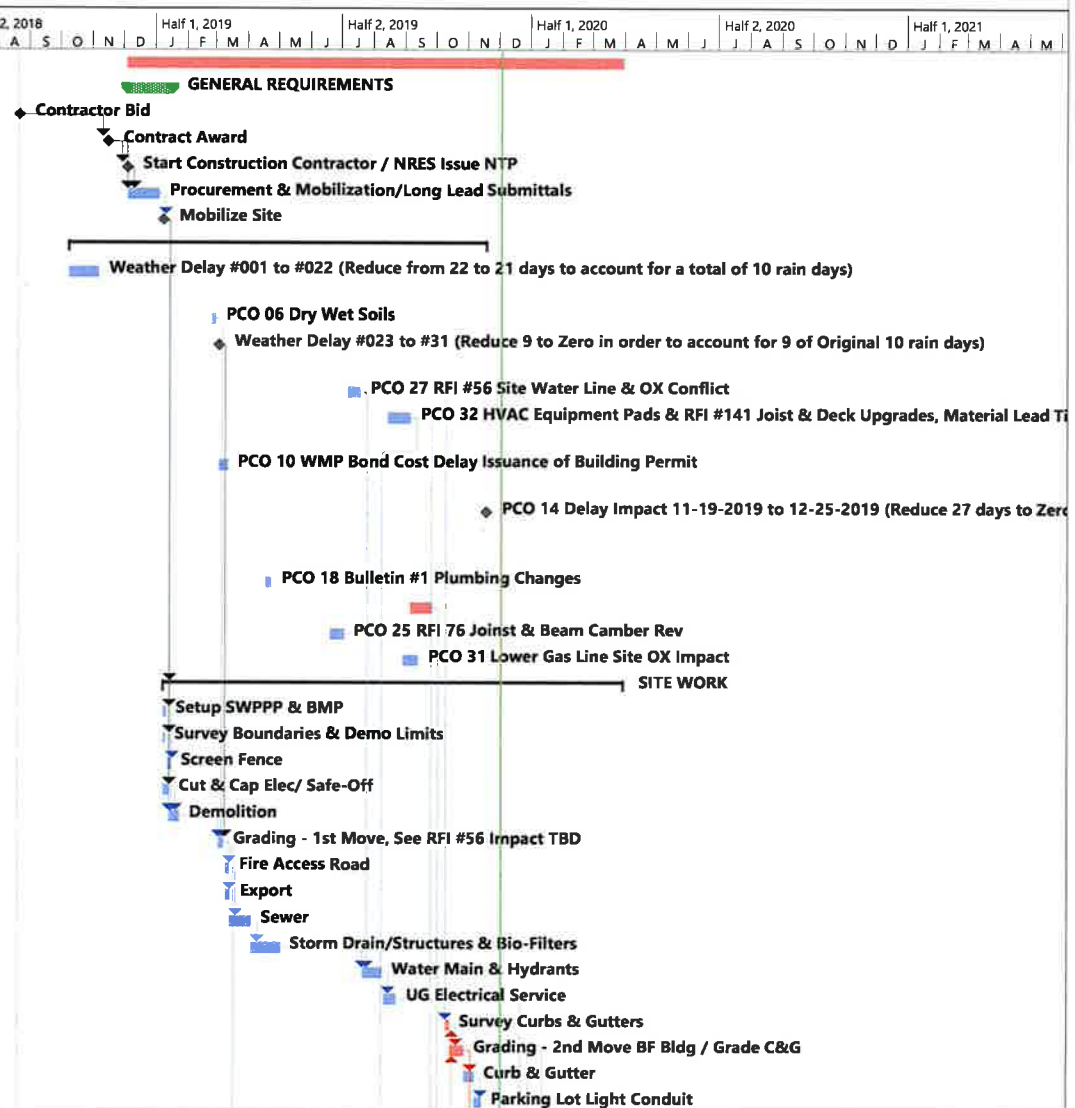
Revised completion date 3-30-2020 per latest critical path schedule update = 90 working days

Note: The total number of delay days is 96, based on item #1 through 10 as listed above. However, the schedule update shows 90 working days of delay, therefore, KPRS will only claim the 90 days based on schedule update.



IRWD Professional Center

ID	Task Name	Duration	Start	Finish	Half 2, 2018	Half 1, 2019	Half 2, 2019	Half 1, 2020	Half 2, 2020	Half 1, 2021
					J A S O N D	J F M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J
1	<b>IRWD PROFESSIONAL CENTER</b>	<b>337 days</b>	<b>Tue 12/4/18</b>	<b>Mon 3/30/20</b>						
2	<b>GENERAL REQUIREMENTS</b>	<b>30 days</b>	<b>Tue 12/4/18</b>	<b>Thu 1/17/19</b>						
3	Contractor Bid	1 day	Tue 8/21/18	Tue 8/21/18						
4	Contract Award	8 days	Mon 11/5/18	Thu 11/15/18						
5	Start Construction Contractor / NRES Issue NTP	1 day	Tue 12/4/18	Tue 12/4/18						
6	Procurement & Mobilization/Long Lead Submittals	20 days	Wed 12/5/18	Fri 1/4/19						
7	Mobilize Site	2 days	Mon 1/7/19	Tue 1/8/19						
8	<b>Schedule Delay Impact</b>	<b>279 days</b>	<b>Tue 10/9/18</b>	<b>Tue 11/19/19</b>						
9	Weather Delay #001 to #022 (Reduce from 22 to 21 days to account for a total of 10 rain days)	21 days	Tue 10/9/18	Tue 11/6/18						
10	PCO 06 Dry Wet Soils	4 days	Mon 2/25/19	Thu 2/28/19						
11	Weather Delay #023 to #31 (Reduce 9 to Zero in order to account for 9 of Original 10 rain days)	0 days	Mon 3/4/19	Mon 3/4/19						
12	PCO 27 RFI #56 Site Water Line & OX Conflict	10 days	Mon 7/8/19	Fri 7/19/19						
13	PCO 32 HVAC Equipment Pads & RFI #141 Joist & Deck Upgrades, Material Lead Time, Fab,	15 days	Thu 8/15/19	Thu 9/5/19						
14	PCO 10 WMP Bond Cost Delay Issuance of Building Permit	7 days	Mon 3/4/19	Tue 3/12/19						
15	PCO 14 Delay Impact 11-19-2019 to 12-25-2019 (Reduce 27 days to Zero as these are weather related and noted above)	0 days	Tue 11/19/19	Tue 11/19/19						
16	PCO 18 Bulletin #1 Plumbing Changes	4 days	Fri 4/19/19	Wed 4/24/19						
17	PCO 24 RFI 38 & 69 Concrete Curb at 5 Ton Unit	15 days	Fri 9/6/19	Thu 9/26/19						
18	PCO 25 RFI 76 Joist & Beam Camber Rev	10 days	Thu 6/20/19	Wed 7/3/19						
19	PCO 31 Lower Gas Line Site OX Impact	10 days	Fri 8/30/19	Fri 9/13/19						
20	<b>SITE WORK</b>	<b>314 days</b>	<b>Wed 1/9/19</b>	<b>Mon 3/30/20</b>						
21	Setup SWPPP & BMP	3 days	Wed 1/9/19	Fri 1/11/19						
22	Survey Boundaries & Demo Limits	2 days	Wed 1/9/19	Thu 1/10/19						
23	Screen Fence	3 days	Mon 1/14/19	Wed 1/16/19						
24	Cut & Cap Elec/ Safe-Off	4 days	Wed 1/9/19	Mon 1/14/19						
25	Demolition	7 days	Tue 1/15/19	Thu 1/24/19						
26	Grading - 1st Move, See RFI #56 Impact TBD	5 days	Mon 3/4/19	Fri 3/8/19						
27	Fire Access Road	4 days	Mon 3/11/19	Thu 3/14/19						
28	Export	5 days	Mon 3/11/19	Fri 3/15/19						
29	Sewer	15 days	Fri 3/15/19	Thu 4/4/19						
30	Storm Drain/Structures & Bio-Filters	20 days	Fri 4/5/19	Thu 5/2/19						
31	Water Main & Hydrants	15 days	Mon 7/22/19	Fri 8/9/19						
32	UG Electrical Service	10 days	Mon 8/12/19	Fri 8/23/19						
33	Survey Curbs & Gutters	2 days	Fri 10/11/19	Mon 10/14/19						
34	Grading - 2nd Move BF Bldg / Grade C&G	10 days	Tue 10/15/19	Mon 10/28/19						
35	Curb & Gutter	8 days	Tue 10/29/19	Thu 11/7/19						
36	Parking Lot Light Conduit	5 days	Fri 11/8/19	Thu 11/14/19						













**PCO #035**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

**Project:** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #035: CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	035 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	8/23 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>		<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	(\$23,622.54)

**POTENTIAL CHANGE ORDER TITLE:** CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24

**CHANGE REASON:** No Change Reason

**POTENTIAL CHANGE ORDER DESCRIPTION:** *(The Contract Is Changed As Follows)*

CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24

This CREDIT change order request is due to Ware Malcomb approval of submittal #09-3013-1 and #09-3012-1.1, to utilize Bedrosians Chateau "Canvas" 12" x 24" in lieu of the original PFT-1a full size pieces that would have been required to be shop cut from full size tile down to 12 x 24. The credit is for the savings on materials only, at bathroom floor tile locations only.  
 Credit 2,200 sf x \$10.51/sf = (\$23,122).

**ATTACHMENTS:**

[Snd Cnyn 09-3013-1.1 Ceramic Tile - Samples.pdf](#) [KPRS Submittal\\_09-3013-1 Ceramic Tile - Samples\\_\(WM-Response\)2019-07-30.pdf](#)

#	Cost Code	Description	Type	Amount
1	09-3000 - Tiling	Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24: 2,200 sf x \$10.51 = (\$23,122)	Other	(\$23,122.00)
<b>Subtotal:</b>				(\$23,122.00)
<b>KPRS P&amp;P Bond: 1.00% Applies to all line item types.</b>				(\$231.22)
<b>KPRS Builders Risk: 0.50% Applies to all line item types.</b>				(\$116.77)
<b>KPRS GL Insurance: 0.65% Applies to all line item types.</b>				(\$152.55)
<b>Grand Total:</b>				<b>(\$23,622.54)</b>

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
 Sean Wisner

08/23/2019 2:54:57 PM

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



Radan COR #001: Per approved ceramic tile submittal 09-3013-1 and 09-3013-1.1, the original PFT-1a is being replaced with Bedrosians Chateau "Canvas 12 x 24 inch". This results in a material only credit to the Owner as detail led below.

**CHANGE ORDER REQUEST**

DATE: 8/23/2019

PROJECT NAME: IRWD Sand Canyon  
 ADDRESS: 15550 Sand Canyon Ave  
Irvine, CA 92618

PROJECT NUMBER: 218073

CHANGE ORDER NUMBER: \_\_\_\_\_

DESCRIPTION OF WORK: Radan COR #001  
Material Credit only Bedrosians  
Chateau in lieu of PFT-1a

**LABOR:** (Use separate lines for Reg & OT hours)

REF NUM	LABOR CLASSIFICATION	HOURS	RATE	Labor
1	Install		\$ -	\$ -
2			\$ -	\$ -
3			\$ -	\$ -
4			\$ -	\$ -
5			\$ -	\$ -
6			\$ -	\$ -
7			\$ -	\$ -
8			\$ -	\$ -
9			\$ -	\$ -
10			\$ -	\$ -
<b>TOTAL LABOR:</b>				\$ -

**MATERIALS:** (Materials over \$500 must have an invoice)

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	Unit credit Bedrosians in lieu of Cateau	SqFt	2200	\$ (10.51)	\$ (23,122.00)
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
<b>TOTAL MATERIAL:</b>					\$ (23,122.00)
(% of Line 2) <b>SALES TAX:</b>					\$ -

**EQUIPMENT/OTHER COSTS:** (Invoice is needed for all equipment costs)

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1				\$ -	\$ -
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
<b>TOTAL OTHER COSTS:</b>					\$ -
(Sum of Lines 1, 2, 3, and 4) <b>SUBTOTAL:</b>					\$ (23,122.00)
(15% of Line 5) <b>MARK-UP:</b>					\$ -
(Sum of Lines 5 and 6) <b>SUBTOTAL:</b>					\$ (23,122.00)

**SUBCONTRACTS:** (Attach Subcontractor's proposal W/Breakdown)

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1		\$ -
2		\$ -
3		\$ -
4		\$ -
<b>SUBCONTRACT COSTS:</b>		\$ -
(5% Of Line 8) <b>MARK-UP:</b>		\$ -
(Total of Lines 8 and 9) <b>TOTAL SUBCONTRACT COSTS:</b>		\$ -
(Total of Lines 7 and 10) <b>GRAND TOTAL:</b>		\$ (23,122.00)

SUBMITTED BY: \_\_\_\_\_

**TOTAL CHANGE REQUESTED:** **\$ (23,122.00)**



# Submittal #093013-1.0 093013 - CERAMIC TILING

KPRS Construction Services Inc.  
2850 Saturn Street  
Brea, California 92821  
Phone (714) 672-0800  
Fax (714) 672-0871

Project 218073 - Sand Canyon Office Building  
15550 Sand Canyon Avenue  
Irvine, California 92618

## Ceramic Tile - Samples

<b>SPEC SECTION</b>	093013 - CERAMIC TILING	<b>SUBMITTAL MANAGER</b>	Nickolas Espinoza (KPRS Construction Services, Inc)
<b>STATUS</b>	Open	<b>DATE CREATED</b>	07/24/2019
<b>ISSUE DATE</b>	07/24/2019	<b>REVISION</b>	0
<b>RESPONSIBLE CONTRACTOR</b>		<b>RECEIVED FROM</b>	
<b>RECEIVED DATE</b>		<b>SUBMIT BY</b>	
<b>FINAL DUE DATE</b>	08/8/2019	<b>LOCATION</b>	
<b>SUB JOB</b>		<b>COST CODE</b>	
<b>APPROVERS</b>	Keith Bryant (Ware Malcomb Architects, Inc.), Kimberly Huffman (Ware Malcomb Architects, Inc.), Angelique Lestienne (Ware Malcomb Architects, Inc.)		

**BALL IN COURT**  
Nickolas Espinoza (KPRS Construction Services, Inc)

**DISTRIBUTION**  
Sean Wisner (KPRS Construction Services, Inc) , Anthony Vaccaro (Newport Real Estate Services, Inc.) , John Brock (KPRS Construction Services, Inc)

**DESCRIPTION**  
Ceramic Tile - Samples  
-PFT1 - Laminam by Crossville-Fokos-Sale 1M x 3M  
-PFT1A - Laminam by Crossville-Fokos-Sale 12" x 24"  
-PFT2 - Laminam by Crossville-Fokos-Roccia 1M x 3M  
-CWT1 - Daltile-Modern Dimensions-Arctic White 4" x 12"  
-CTB1 - Daltile-Arctic White to match CWT1

Crossville tile - To be the 5.6mm thickness at all floor locations per manufacturers recommendations, Copy of manufacturers literature attached. The Bedrosian alternate is acceptable at the bathrooms provided the slip resistance requirements for wet locations are met.

Daltile - Use the 4 1/4"x12 3/4" tile at both wall and base. At outside corners use bullnose or 1/4 round. No schluters are to be used

Samples were giving to Keith @ onsite meeting on 7/25

**ATTACHMENTS**

**SUBMITTAL WORKFLOW**

NAME	SUBMITTER/APPROVER	SENT DATE	DUE DATE	RETURNED DATE	RESPONSE	ATTACHMENTS	COMMENTS
Nickolas Espinoza	Submitter		7/25/2019		Pending		
Keith Bryant	Approver		8/8/2019		Pending		
Kimberly Huffman	Approver		8/8/2019		Pending		
Angelique Lestienne	Approver		8/8/2019		Pending		

**KPRS CONSTRUCTION SERVICES, INC.**  
**SUBMITTAL REVIEW**

REVIEWED  RESUBMIT

**SUBMITTAL NO:**

REVIEWED FOR GENERAL COMPLIANCE WITH REFERENCE TO PLANS AND SPECIFICATION ONLY. THIS REVIEW DOES NOT RELIEVE THE SUBCONTRACTOR OF THE RESPONSIBILITY FOR MAKING THE WORK CONFORM TO THE REQUIREMENTS OF THE CONTRACT. THE SUBCONTRACTOR IS RESPONSIBLE FOR ALL FIELD CONDITIONS, DIMENSIONS, CURRENT FABRICATION, COORDINATION AND ACCURATE FIT WITH WORK OF OTHER TRADES.

DATE: 7/25/19

**WARE MALCOMB**  
SAND CANYON OFFICE BUILDING

project name: IRV14 0175 02

NO EXCEPTIONS TAKEN  MAKE CORRECTIONS NOTED  
 FOR REVIEW ONLY  REVISE AND RESUBMIT  
 REJECT  NOTIFY SUBMITTER

Reviewed for general compliance with the design of the project and general coordination with the construction of the project documents. Approval does not constitute an endorsement of the design or construction. Construction is the responsibility of the contractor. The contractor shall coordinate with the site. The contractor shall provide a copy of the submittal to the architect. The architect shall provide a copy of the submittal to the contractor.

DATE: 7/30/2019 BY: KEITH BRYANT

COPIES TO





2850 Saturn Street  
Brea, CA 92821  
(714) 672-0800  
(714) 672-0871

### Transmittal

Date: 7/25/2019

**TO** Ware Malcomb  
Attn: Keith Bryant  
10 Edelman  
Irvine, CA 92618

KPRS No: 218073  
Project: IRWD Sand Canyon Office  
Address: 15550 Sand Canyon Ave.  
City, State Zip: Irvine, CA 92618

We are transmitting the following documents:

via: Hand delivered @ Job-site Meeting

Date	Quantity	Description
7/25/2019		Ceramic Tile - Samples - Submittal #093013-1
		-(1) FFT1 - Laminam by Crossville-Fokos-Sale 1M x 3M
		-(1) FFT1A - Laminam by Crossville-Fokos-Sale 12" x 24"
		-(1) FFT2 - Laminam by Crossville-Fokos-Roccia 1M x 3M
		-(1) CWT1 - Daltile-Modern Dimensions-Arctic White 4" x 12"
		-(1) CTB1 - Daltile-Arctic White to match CWT1

\*\*\* Submittal #093013-1 Ceramic Tile - Samples\*\*\*

Action Requested: For Your Review

Comments:

Transmitted By:   
Nick Espinoza  
Project Engineer

Copies:



**PCO #037**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone (714) 672-0800  
 Fax (714) 672-0871

**Project** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #037 CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only**

<b>TO</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION</b>	037 / 0	<b>CONTRACT</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM</b>		<b>CREATED BY</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS</b>	Approved	<b>CREATED DATE</b>	8/24 /2019
<b>REFERENCE</b>		<b>PRIME CONTRACT CHANGE ORDER</b>	None
<b>FIELD CHANGE</b>	No		
<b>LOCATION</b>		<b>ACCOUNTING METHOD</b>	Amount Based
<b>SCHEDULE IMPACT</b>		<b>PAID IN FULL</b>	No
		<b>TOTAL AMOUNT</b>	(\$1,317.95)

**POTENTIAL CHANGE ORDER TITLE** CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only

**CHANGE REASON** No Change Reason

**POTENTIAL CHANGE ORDER DESCRIPTION** *(The Contract Is Changed As Follows)*

**CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only**

This change order is in regards to Bulletin #2, revised exterior stone attachment method at the two West elevations only. Other Bulletin #2 changes will be addressed under separate cover. Attachment will be achieved via Poly Mortar, in lieu of lath and scratch coat.

The exterior stone attachment method was revised to ensure structural integrity of attachment method, and has been accepted via approved Bulletin #2 issuance and approval by City of Irvine.

**ATTACHMENTS**

[PCO #37 Back-up.pdf](#)

#	Cost Code	Description	Type	Amount
1	04-2000 - Unit Masonry	Majestic Masonry COR #001 - Bulletin #2 - Exterior Stone Revised Attachment Method Only	Other	\$ 27,085.09
2	09-2200 - Supports for Plaster and Gypsum Board	NU-Enterprise CDR #001 Bulletin #2 - Exterior Stone Revised Attachment Method Only	Other	(\$28,375.12)
<b>Subtotal</b>				(\$1,290.03)
KPRS P P Bond 1.00 Applies to all line item types.				(\$12.00)
KPRS Builders Risk 0.50 Applies to all line item types.				(\$8.51)
KPRS GL Insurance 0.05 Applies to all line item types.				(\$8.51)
<b>Grand Total</b>				(\$1,317.95)



PCO #037

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
Sean Wisner

\_\_\_\_\_  
SIGNATURE                                  DATE

\_\_\_\_\_  
SIGNATURE                                  DATE

  
08/24/2019 11:28 AM  
\_\_\_\_\_  
SIGNATURE                                  DATE

KPRS Construction Services Inc.

page 2 of 2

Printed On 8/24/2019 11 28 AM

Majestic Masonry COR #1: Bulletin #2 changes Extra cost for poly mortar & Co ncrete panel prep in lieu of type s spec mix over lath & scratch.

**CHANGE ORDER REQUEST**

DATE: 8/19/2019

PROJECT NAME: IRWD Sand Canyon  
 ADDRESS: 15550 Sand Canyon Ave  
Irvine, CA 92618

PROJECT NUMBER: 218073 CHANGE ORDER NUMBER: \_\_\_\_\_  
 DESCRIPTION OF WORK: \_\_\_\_\_

**LABOR: (Use separate lines for Reg & OT hours)**

REF NUM	LABOR CLASSIFICATION	x1.0 HOURS	RATE	LABOR
1	Foreman	8	\$ 75.00	\$ 600.00
2	Mason	56	\$ 71.00	\$ 3,976.00
3	Tender	56	\$ 65.00	\$ 3,640.00
4	Truck	8	\$ 95.00	\$ 760.00
5			\$ -	\$ -
6			\$ -	\$ -
7			\$ -	\$ -
8			\$ -	\$ -
9			\$ -	\$ -
10			\$ -	\$ -
<b>TOTAL LABOR:</b>				<b>\$ 8,976.00</b>

**MATERIALS: (Materials over \$500 must have an invoice)**

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	Poly Mortar	Bags	254	\$ 59.75	\$ 15,176.50
2	Tilt Up Panels to Receive Prep for Stone	Buckets	4	\$ 145.00	\$ 580.00
3				\$ -	\$ -
4	Type S Spec Mix	Bags	-355	\$ 7.55	\$ (2,680.25)
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
<b>TOTAL MATERIAL:</b>					<b>\$ 13,076.25</b>
(% of Line 2) <b>SALES TAX:</b>					<b>\$ -</b>

**EQUIPMENT/OTHER COSTS: (Invoice is needed for all equipment costs)**

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1	Reach Lift/Delivery/Rental	Ea	1	\$ 1,500.00	\$ 1,500.00
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
<b>TOTAL OTHER COSTS:</b>					<b>\$ 1,500.00</b>
(Sum of Lines 1, 2, 3, and 4) <b>SUBTOTAL:</b>					<b>\$ 23,552.25</b>
(15% of Line 5) <b>MARK-UP:</b>					<b>\$ 3,532.84</b>
(Sum of Lines 5 and 6) <b>SUBTOTAL:</b>					<b>\$ 27,085.09</b>

**SUBCONTRACTS: (Attach Subcontractor's proposal W/Breakdown)**

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1		\$ -
2		\$ -
3		\$ -
4		\$ -
<b>SUBCONTRACT COSTS:</b>		<b>\$ -</b> Line 8
(5% Of Line 8) <b>MARK-UP:</b>		<b>\$ -</b> Line 9
(Total of Lines 8 and 9) <b>TOTAL SUBCONTRACT COSTS:</b>		<b>\$ -</b>
(Total of Lines 7 and 10) <b>GRAND TOTAL:</b>		<b>\$ 27,085.09</b>

SUBMITTED BY: \_\_\_\_\_

**TOTAL CHANGE REQUESTED: \$ 27,085.09**

Nu Enterprise COR #1: Credit for labor and material to delete lath and sc ratch for stone per bulletin #2

**CHANGE ORDER REQUEST**

DATE: 8/19/2019

PROJECT NAME: IRWD Sand Canyon  
 ADDRESS: 15550 Sand Canyon Ave  
Irvine, CA 92618

PROJECT NUMBER: 218073

CHANGE ORDER NUMBER: \_\_\_\_\_

DESCRIPTION OF WORK: \_\_\_\_\_

**LABOR:** (Use separate lines for Reg & OT hours)

REF NUM	LABOR CLASSIFICATION	x1.0 HOURS	RATE	Labor
1	Lather	-60	\$ 74.47	\$ (4,468.20)
2	Plasterer	-124	\$ 80.83	\$ (10,022.92)
3			\$ -	\$ -
4			\$ -	\$ -
5			\$ -	\$ -
6			\$ -	\$ -
7			\$ -	\$ -
8			\$ -	\$ -
9			\$ -	\$ -
10			\$ -	\$ -

**TOTAL LABOR:** \$ (14,491.12)

**MATERIALS:** (Materials over \$500 must have an invoice)

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	Lath and Trims	EA	-1	\$ 4,034.98	\$ (4,034.98)
2	Riverside Cement	Bag	-150	\$ 12.90	\$ (1,935.00)
3	Plaster Sand	Ton	-45	\$ 65.00	\$ (2,925.00)
4	Misc. Materials	EA	-1	\$ 533.70	\$ (533.70)
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -

**TOTAL MATERIAL:** \$ (9,428.68)

(% of Line 2) **SALES TAX:** 8.00%

\$ (754.29)

**EQUIPMENT/OTHER COSTS:** (Invoice is needed for all equipment costs)

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1				\$ -	\$ -
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -

**TOTAL OTHER COSTS:** \$ -

(Sum of Lines 1, 2, 3, and 4) **SUBTOTAL:** \$ (24,674.01)

(15% of Line 5) **MARK-UP:** \$ (3,701.10)

(Sum of Lines 5 and 6) **SUBTOTAL:** \$ (28,375.12)

**SUBCONTRACTS:** (Attach Subcontractor's proposal W/Breakdown)

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1		\$ -
2		\$ -
3		\$ -
4		\$ -

**SUBCONTRACT COSTS:** \$ - Line 8

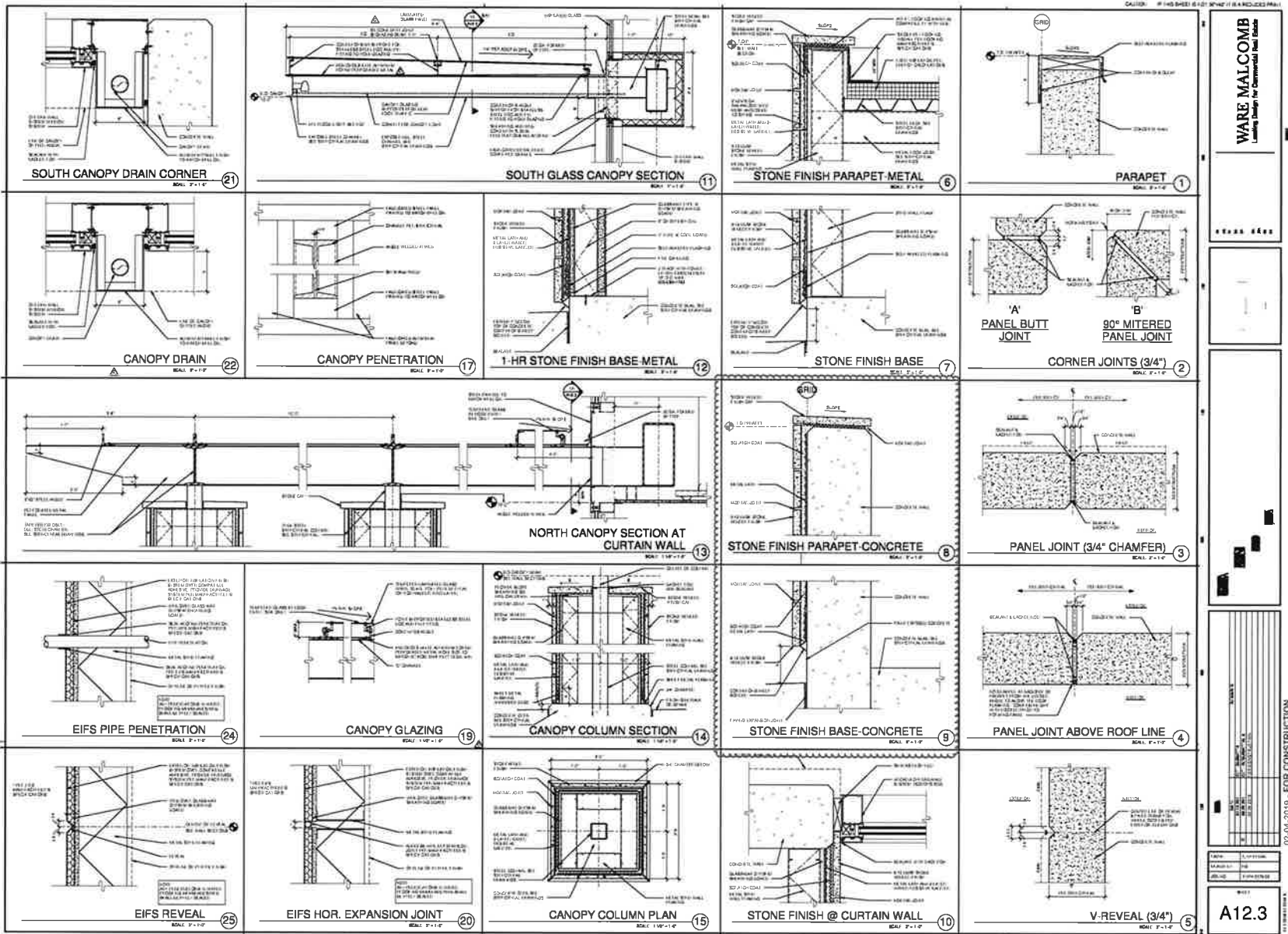
(5% Of Line 8) **MARK-UP:** \$ - Line 9

(Total of Lines 8 and 9) **TOTAL SUBCONTRACT COSTS:** \$ -

(Total of Lines 7 and 10) **GRAND TOTAL:** \$ (28,375.12)

SUBMITTED BY: \_\_\_\_\_

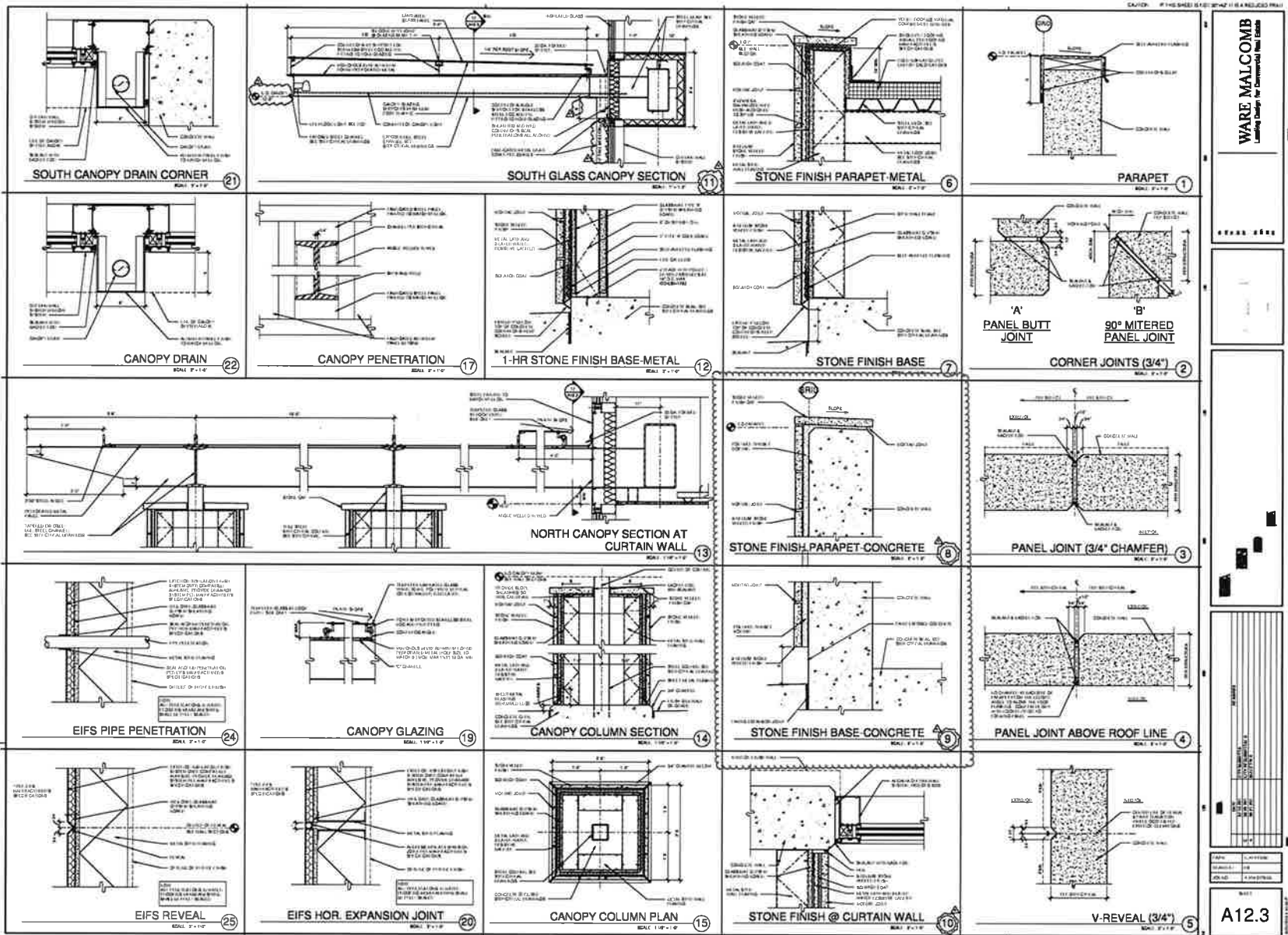
**TOTAL CHANGE REQUESTED:** \$ (28,375.12)



**WARE MALCOMB**  
Leading Design for Commercial Real Estate

02-04-2019 - FOR CONSTRUCTION

**A12.3**



**WARE MALCOMB**  
 Leading Design for Commercial Real Estate



**PCO #039**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

**Project:** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #039: CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	039 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	8/26 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>		<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	(\$38,793.85)

**POTENTIAL CHANGE ORDER TITLE:** CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only

**CHANGE REASON:** Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION:** *(The Contract Is Changed As Follows)*

CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only

This change order request is due to Bulletin #2 for deletion of the living wall only, as noted on landscape, plumbing and architectural plans. Other Bulletin #2 related costs will be submitted under separate cover for trade specific costs.

**ATTACHMENTS:**

#	Cost Code	Description	Type	Amount
1	32-8000 - Landscape and Irrigation	Calpak COR #002 Bulletin #2 - Delete Living Wall Landscape Costs Only	Other	(\$35,817.90)
2	22-0001 - Plumbing	PV&C Plumbing Bulletin #2 - Delete Living Wall Plumbing Costs Only	Other	(\$2,153.94)
<b>Subtotal:</b>				(\$37,971.84)
<b>KPRS P&amp;P Bond: 1.00% Applies to all line item types.</b>				(\$379.72)
<b>KPRS Builders Risk: 0.50% Applies to all line item types.</b>				(\$191.76)
<b>KPRS GL Insurance: 0.65% Applies to all line item types.</b>				(\$250.53)
<b>Grand Total:</b>				<b>(\$38,793.85)</b>

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
 Sean Wisner

08/26/2019 3:12:37 PM

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



**Calpak Landscape COR #2:** Bulletin #2 delete living wall only, see details L- 2, L-5, L-17, Setalls 1, 2 &3/A2.1, A2.1a and A10.1. No other costs or credits are included with this change order request, and it is only for credit of living wall. The credit is based on Square Foot Unit Cost and includes all labor, material, equipment, taxes and delivery.

**CHANGE ORDER REQUEST**

DATE: 8/26/2019  
 PROJECT NAME: IRWD Sand Canyon PROJECT NUMBER: 218073 CHANGE ORDER NUMBER: #002  
 ADDRESS: 15550 Sand Canyon Ave DESCRIPTION OF WORK: Calpak: Delete Living Wall  
Irvine, CA 92618

**LABOR:** (Use separate lines for Reg & OT hours)

REF NUM	LABOR CLASSIFICATION	HOURS x1.0	RATE	Labor
1			\$ -	\$ -
2			\$ -	\$ -
3			\$ -	\$ -
4			\$ -	\$ -
5			\$ -	\$ -
6			\$ -	\$ -
7			\$ -	\$ -
8			\$ -	\$ -
9			\$ -	\$ -
10			\$ -	\$ -
<b>TOTAL LABOR:</b>				\$ -

**MATERIALS:** (Materials over \$500 must have an invoice)

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	Credit Unit Cost Living Wall	SF	358	\$ (87.00)	\$ (31,146.00)
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
<b>TOTAL MATERIAL:</b>					\$ (31,146.00)
(% of Line 2) <b>SALES TAX:</b>					\$ -

**EQUIPMENT/OTHER COSTS:** (Invoice is needed for all equipment costs)

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1				\$ -	\$ -
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
<b>TOTAL OTHER COSTS:</b>					\$ -
(Sum of Lines 1, 2, 3, and 4)				<b>SUBTOTAL:</b>	\$ (31,146.00)
(15% of Line 5)				<b>MARK-UP:</b>	\$ (4,671.90)
(Sum of Lines 5 and 6)				<b>SUBTOTAL:</b>	\$ (35,817.90)

**SUBCONTRACTS:** (Attach Subcontractor's proposal W/Breakdown)

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1		\$ -
2		\$ -
3		\$ -
4		\$ -
<b>SUBCONTRACT COSTS:</b>		\$ -
(5% Of Line 8)		<b>MARK-UP:</b>
(Total of Lines 8 and 9)		\$ -
<b>TOTAL SUBCONTRACT COSTS:</b>		\$ -
(Total of Lines 7 and 10)		<b>GRAND TOTAL:</b>
(Sum of Lines 7 and 10)		\$ (35,817.90)
<b>TOTAL CHANGE REQUESTED:</b>		\$ (35,817.90)

SUBMITTED BY: \_\_\_\_\_

**PV&C Plumbing COR #6:** Bulletin #2 delete living wall only, see plumbing sheet P-3.0 highlighted to show deleted items. No other adds or credits are included for Bulletin #2 and this is only for credit of living wall. Any subsequent Bulletin #2 plumbing changes will be noted on separate change order submittal for plumbing.

**CHANGE ORDER REQUEST**

DATE: 8/26/2019  
 PROJECT NAME: IRWD Sand Canyon PROJECT NUMBER: 218073 CHANGE ORDER NUMBER: #006  
 ADDRESS: 15550 Sand Canyon Ave DESCRIPTION OF WORK: PV&C: Delete Living Wall  
Irvine, CA 92618

**LABOR:** (Use separate lines for Reg & OT hours)

REF NUM	LABOR CLASSIFICATION	HOURS	RATE	Labor
1	Plumber JM	-6	\$ 92.51	\$ (555.06)
2			\$ -	\$ -
3			\$ -	\$ -
4			\$ -	\$ -
5			\$ -	\$ -
6			\$ -	\$ -
7			\$ -	\$ -
8			\$ -	\$ -
9			\$ -	\$ -
10			\$ -	\$ -
<b>TOTAL LABOR:</b>				<b>\$ (555.06)</b>

**MATERIALS:** (Materials over \$500 must have an invoice)

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	3" ABS Pipe and fittings	Flat	-1	\$ 97.80	\$ (97.80)
2	2" ABS pipe and fittings	Flat	-1	\$ 23.75	\$ (23.75)
3	3" Floor clean out	Flat	-1	\$ 155.41	\$ (155.41)
4	1 ft copper pipe and fittings	Flat	-1	\$ 173.30	\$ (173.30)
5	2" pipe hangers	Ea	-7	\$ 1.77	\$ (12.39)
6	1" felt ring hangers	Ea	-5	\$ 2.45	\$ (12.25)
7	2" roof flashing	Flat	-1	\$ 44.53	\$ (44.53)
8	2" cast iron pipe and fittings (vent)	Flat	-1	\$ 143.50	\$ (143.50)
<b>TOTAL MATERIAL:</b>					<b>\$ (662.93)</b>
(% of Line 2) <b>SALES TAX:</b>					<b>\$ -</b>

**EQUIPMENT/OTHER COSTS:** (Invoice is needed for all equipment costs)

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1	Backhoe	Hours	-3	\$ 135.00	\$ (405.00)
2	25 ft man lift	Day	-1	\$ 250.00	\$ (250.00)
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
<b>TOTAL OTHER COSTS:</b>					<b>\$ (655.00)</b>
				(Sum of Lines 1, 2, 3, and 4)	<b>SUBTOTAL: \$ (1,872.99)</b>
				(15% of Line 5)	<b>MARK-UP: \$ (280.95)</b>
				(Sum of Lines 5 and 8)	<b>SUBTOTAL: \$ (2,153.94)</b>

**SUBCONTRACTS:** (Attach Subcontractor's proposal W/Breakdown)

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1		\$ -
2		\$ -
3		\$ -
4		\$ -
<b>SUBCONTRACT COSTS:</b>		<b>\$ -</b> Line 8
(5% Of Line 8)		<b>MARK-UP: \$ -</b> Line 9
(Total of Lines 8 and 9)		<b>TOTAL SUBCONTRACT COSTS: \$ -</b>
(Total of Lines 7 and 10)		<b>GRAND TOTAL: \$ (2,153.94)</b>
<b>TOTAL CHANGE REQUESTED:</b>		<b>\$ (2,153.94)</b>

SUBMITTED BY: \_\_\_\_\_



**PCO #041**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

**Project:** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #041: CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	041 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	9/7 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No	<b>ACCOUNTING METHOD:</b>	Amount Based
<b>LOCATION:</b>		<b>PAID IN FULL:</b>	No
<b>SCHEDULE IMPACT:</b>	5 days	<b>TOTAL AMOUNT:</b>	(\$14,305.63)

**POTENTIAL CHANGE ORDER TITLE:** CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty

**CHANGE REASON:** Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION:** *(The Contract Is Changed As Follows)*

**CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty**

This change order request is due to RFI #92, #139 and Bulletin #3 to provided added scope of work to install footing at Fixture Type E light bollard, and to credit the reduced quantity of fixture Type E as noted on RFI #139 and Bulletin #3.

The attached add/credit cost breakdown provides additional information as to overall credit.

Note, KPRS is excluding the cost for additional soils export for added bollard footings, as this cost will be tracked under separate cover for the overall export, that has been noted in Owner meeting, will exceed engineers estimate.

**ATTACHMENTS:**

#	Cost Code	Description	Type	Amount
1	26-0001 - Electrical	Haveco Electric COR #008 Credit Deleted Fixture Type E	Other	(\$38,597.06)
2	03-0001 - Concrete	H&H COR #007 Added 54 Fixture Type E Bollard Footings Per RFI #92	Other	\$ 21,714.56
3	01-7123 - Field Engineering	TCG COR RFI #92 Added Bollard Footing Engineering 12 Hours for Office Calculations & Field Engineering x \$240/hr =	Other	\$ 2,880.00
<b>Subtotal:</b>				(\$14,002.50)
<b>KPRS P&amp;P Bond: 1.00% Applies to all line item types.</b>				(\$140.03)
<b>KPRS Builders Risk: 0.50% Applies to all line item types.</b>				(\$70.71)
<b>KPRS GL Insurance: 0.66% Applies to all line item types.</b>				(\$92.39)
<b>Grand Total:</b>				<b>(\$14,305.63)</b>


Newport Real Estate Services, Inc.

Irvine Ranch Water District

**KPRS Construction Services**  
Sean Wisner

\_\_\_\_\_  
SIGNATURE DATE

\_\_\_\_\_  
SIGNATURE DATE

  
09/07/2019 10:00:55 AM  
\_\_\_\_\_  
SIGNATURE DATE

Haveco COR #8: RFI #139 credit for voiding 28 fixture type E per the bulletin 3 plans

### CHANGE ORDER REQUEST

PROJECT NAME: IRWD Sand Canyon PROJECT NUMBER: 218073 DATE: 8/27/2019  
 ADDRESS: 15550 Sand Canyon Ave CHANGE ORDER NUMBER: #008  
Irvine, CA 92618 DESCRIPTION OF WORK: Credit Deleted Bollard  
Fixture Type E

**LABOR:** (Use separate lines for Reg & OT hours)

REF NUM	LABOR CLASSIFICATION	x1.0	HOURS	RATE	Labor
1	Journeyman	-48		\$ 95.00	\$ (4,560.00)
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
9				\$ -	\$ -
10				\$ -	\$ -
<b>TOTAL LABOR:</b>					<b>\$ (4,560.00)</b>

**MATERIALS:**

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	Type E Fixtures	EA	-28	\$ 925.00	\$ (25,900.00)
2	Underground Branch Raceway		-1	\$ 413.45	\$ (413.45)
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
<b>TOTAL MATERIAL:</b>					<b>\$ (26,313.45)</b>
(% of Line 2) <b>SALES TAX:</b>					<b>7.75%</b>
					<b>\$ (2,039.29)</b>

**EQUIPMENT/OTHER COSTS: (Invoice is needed for all equipment costs)**

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1	Trencher	Day	-1	\$ 650.00	\$ (650.00)
2				\$ -	\$ -
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
<b>TOTAL OTHER COSTS:</b>					<b>\$ (650.00)</b>
(Sum of Lines 1, 2, 3, and 4) <b>SUBTOTAL:</b>					<b>\$ (33,562.66)</b>
(15% of Line 5) <b>MARK-UP:</b>					<b>\$ (5,034.40)</b>
(Sum of Lines 5 and 6) <b>SUBTOTAL:</b>					<b>\$ (38,597.06)</b>

**SUBCONTRACTS:** (Attach Subcontractor's proposal W/Breakdown)

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1		\$ -
2		\$ -
3		\$ -
4		\$ -
<b>SUBCONTRACT COSTS:</b>		<b>\$ -</b> Line 8
(5% of Line 8) <b>MARK-UP:</b>		<b>\$ -</b> Line 9
(Total of Lines 8 and 9) <b>TOTAL SUBCONTRACT COSTS:</b>		<b>\$ -</b>
(Total of Lines 7 and 10) <b>GRAND TOTAL:</b>		<b>\$ (38,597.06)</b>
<b>TOTAL CHANGE REQUESTED:</b>		<b>\$ (38,597.06)</b>

SUBMITTED BY: \_\_\_\_\_



H&H CRX #7: Provide labor and materials to ogger 54 holes for light fixture E. Set rebar cages, set bolt templates and pour concrete.

**CHANGE ORDER REQUEST**

PROJECT NAME: IRWD Sand Canyon PROJECT NUMBER: 218073 DATE: 8/27/2019  
 ADDRESS: 15550 Sand Canyon Ave CHANGE ORDER NUMBER: #007  
Irvine, CA 92618 DESCRIPTION OF WORK: RFI #92 Added 54 Concrete  
Light Bollard Footings

**LABOR: (Use separate lines for Reg & OT hours)**

REF NUM	LABOR CLASSIFICATION	x1.0	HOURS	RATE	Labor
1	Foreman	16		\$ 105.32	\$ 1,685.12
2	Carpenter	88		\$ 79.08	\$ 6,959.04
3	Laborer	48		\$ 73.45	\$ 3,525.60
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
9				\$ -	\$ -
10				\$ -	\$ -
<b>TOTAL LABOR:</b>					<b>\$ 12,169.76</b>

**MATERIALS:**

REF	MATERIAL DESCRIPTION	UNITS	QTY	UNIT COST	MATERIAL COST
1	Concrete	YD	10	\$ 113.25	\$ 1,132.50
2	2x4, Nails, etc		1	\$ 360.00	\$ 360.00
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
7				\$ -	\$ -
8				\$ -	\$ -
<b>TOTAL MATERIAL:</b>					<b>\$ 1,492.50</b>
(% of Line 2) <b>SALES TAX:</b>					<b>7.75%</b>
					<b>\$ 115.67</b>

**EQUIPMENT/OTHER COSTS: (Invoice is needed for all equipment costs)**

REF	DESCRIPTION	UNITS	QTY	UNIT COST	OTHER COST
1	Bobcat with ogger rental	Days	2	\$ 247.00	\$ 494.00
2	Concrete Pump	Ea	1	\$ 2,145.00	\$ 2,145.00
3				\$ -	\$ -
4				\$ -	\$ -
5				\$ -	\$ -
6				\$ -	\$ -
<b>TOTAL OTHER COSTS:</b>					<b>\$ 2,639.00</b>
(Sum of Lines 1, 2, 3, and 4) <b>SUBTOTAL:</b>					<b>\$ 16,417.01</b>
(15% of Line 5) <b>MARK-UP:</b>					<b>\$ 2,462.55</b>
(Sum of Lines 5 and 6) <b>SUBTOTAL:</b>					<b>\$ 18,879.56</b>

**SUBCONTRACTS: (Attach Subcontractor's proposal W/Breakdown)**

REF	SUBCONTRACTOR NAME / DESCRIPTION	SUBCONTRACT COST
1	Rebar Cages	\$ 2,700.00
2		\$ -
3		\$ -
4		\$ -
<b>SUBCONTRACT COSTS:</b>		<b>\$ 2,700.00</b> Line 8
(5% of Line 8) <b>MARK-UP:</b>		<b>\$ 135.00</b> Line 9
(Total of Lines 8 and 9) <b>TOTAL SUBCONTRACT COSTS:</b>		<b>\$ 2,835.00</b>
(Total of Lines 7 and 10) <b>GRAND TOTAL:</b>		<b>\$ 21,714.56</b>

SUBMITTED BY: \_\_\_\_\_

**TOTAL CHANGE REQUESTED: \$ 21,714.56**



RFI #92

KPRS Construction Services Inc.  
2850 Saturn Street  
Brea, California 92821  
Phone: (714) 872-0800  
Fax: (714) 872-0871

Project: 218073 - Sand Canyon Office Building  
15550 Sand Canyon Avenue  
Irvine, California 92618

### Light Fixture E Concrete Base

<b>TO:</b>	Keith Bryant (Ware Malcomb Architects, Inc.) Kimberly Huffman (Ware Malcomb Architects, Inc.) Angeliqne Lestienne (Ware Malcomb Architects, Inc.)	<b>FROM:</b>	Nickolas Espinoza (KPRS Construction Services, Inc) 2850 Saturn St Brea, California 92821
<b>DATE INITIATED:</b>	04/25/2019	<b>STATUS:</b>	Open
<b>LOCATION:</b>		<b>DUE DATE:</b>	05/13/2019
<b>PROJECT STAGE:</b>		<b>COST CODE:</b>	
<b>SUB JOB:</b>		<b>SCHEDULE IMPACT:</b>	
<b>COST IMPACT:</b>		<b>SPEC SECTION:</b>	
<b>DRAWING NUMBER:</b>	E1.0	<b>REFERENCE:</b>	
<b>LINKED DRAWINGS:</b>			
<b>RECEIVED FROM:</b>			
<b>COPIES TO:</b>	John Brock (KPRS Construction Services, Inc), Anthony Vaccaro (Newport Real Estate Services, Inc. ), Sean Wisner (KPRS Construction Services, Inc)		

**Question from Nickolas Espinoza (KPRS Construction Services, Inc) at 03:12 PM on 04/25/2019**

There is no concrete base detail for fixture E (Bollard LED Light). We do not believe these should be set directly into the dirt & should sit separate above the dirt.

- Please provide a concrete base detail for light fixture E

**Attachments:**  
[E-1.0 ELECTRICAL SYMBOLS LIST, DETAILS AND NOTES Rev.0.1 \(2\).pdf](#)

Awaiting an Official Response

**All Replies:**

**Response from Nickolas Espinoza (KPRS Construction Services, Inc) at 02:39 PM on 05/06/2019**

The hatched item on the marked up sheet appears to be concrete. Please advise the following questions

- How far into the ground is it embedded and is there rebar required? Please provide a Structural detail to install.

**Attachments:**  
[RFI092\\_Light Fixture E Concrete Base\\_RPM RESPONSE\\_2019-05-06.pdf](#)

**Response from Angeliqne Lestienne (Ware Malcomb Architects, Inc.) at 02:07 PM on 05/06/2019**

See response in RFI 092\_Light Fixture E Concrete Base\_RPM RESPONSE\_2019-05-06.pdf

**Attachments:**  
[RFI 092\\_Light Fixture E Concrete Base\\_RPM RESPONSE\\_2019-05-06.pdf](#)

BY \_\_\_\_\_ DATE \_\_\_\_\_ COPIES TO \_\_\_\_\_

KPRS Construction Services Inc.





**PCO #046**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

**Project:** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #046: CE #065 - Fee Credit 4% PCO 33-35-37-39-41**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	046 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	10/23 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>		<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	(\$3,535.19)

**POTENTIAL CHANGE ORDER TITLE:** CE #065 - Fee Credit 4% PCO 33-35-37-39-41

**CHANGE REASON:** Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION:** *(The Contract Is Changed As Follows)*

**CE #065 - Fee Credit 4% PCO 33-35-37-39-41**

This Credit change order request is to resolve fee credit at 4% (Original Bid Fee) for credit PCO 33-35-37-39-41. This resolves all fee credit request based on all change order through date of this change order request.

**ATTACHMENTS:**

[Back-Up.pdf](#)

#	Cost Code	Description	Type	Amount
1	00-7400 - Contractor Fee	Fee Credit 4% PCO 33-35-37-39-41 / See Attached Backup	Other	(\$3,535.19)
<b>Subtotal:</b>				(\$3,535.19)
<b>Grand Total:</b>				(\$3,535.19)

**Newport Real Estate Services, Inc.**

**Irvine Ranch Water District**

**KPRS Construction Services**  
 Sean Wisner

SIGNATURE

DATE

SIGNATURE

DATE

SIGNATURE

DATE

10/23/2019 8:50:03 AM



**PCO #033**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

**Project:** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #033: CE #042 - RFI #138 HVAC  
 Screen Backside Remove Berridge S-Deck**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	033 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	8/2 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>		<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	(\$11,993.60)

**POTENTIAL CHANGE ORDER TITLE:** CE #042 - RFI #138 HVAC Screen Backside Remove Berridge S-Deck

**CHANGE REASON:** Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION:** *(The Contract Is Changed As Follows)*

**CE #042 - RFI #138 HVAC Screen Backside Remove Berridge S-Deck**

This change order request is due to RFI #138 response to remove HVAC screen Berridge S-Deck from backside of screen only. This is being noted on returned submittal #07-5000-8, and was also shown on construction set of drawings but not clouded to identify project team of proposed change.

**ATTACHMENTS:**

#	Cost Code	Description	Type	Amount
1	07-6000 - Flashing and Sheet Metal	A&A COR #004 - RFI #138 HVAC Screen Backside Remove Berridge S-Deck	Other	(\$11,993.60)
			<b>Subtotal:</b>	(\$11,993.60)
			<b>Grand Total:</b>	(\$11,993.60)

→ ST: \$11,993.60 × 4% = \$479.74 →

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
 Sean Wisner

*(Signature)*  
 08/02/2019 3:09:14 PM

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



PCO #035

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

Project: 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #035: CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	035 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	8/23 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>		<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	(\$23,622.54)

POTENTIAL CHANGE ORDER TITLE: CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24

CHANGE REASON: No Change Reason

**POTENTIAL CHANGE ORDER DESCRIPTION: (The Contract Is Changed As Follows)**

CE #046 - Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24

This CREDIT change order request is due to Ware Malcomb approval of submittal #09-3013-1 and #09-3012-1.1, to utilize Bedrosians Chateau "Canvas" 12" x 24" in lieu of the original PFT-1a full size pieces that would have been required to be shop cut from full size tile down to 12 x 24. The credit is for the savings on materials only, at bathroom floor tile locations only.  
 Credit 2,200 sf x \$10.51/sf = (\$23,122).

**ATTACHMENTS:**

[Snd Cnyn 09-3013-1.1 Ceramic Tile - Samples.pdf](#) [\\_KPRS Submittal\\_09-3013-1 Ceramic Tile - Samples\\_\(WM-Response\)2019-07-30.pdf](#)

#	Cost Code	Description	Type	Amount
1	09-3000 - Tiling	Bathroom Floor Tile PFT-1a - Replaced by Bedrosians Chatequ 12 x 24: 2,200 sf x \$10.51 = (\$23,122)	Other	(\$23,122.00)
<b>Subtotal:</b>				(\$23,122.00)
<b>KPRS P&amp;P Bond: 1.00% Applies to all line item types.</b>				(\$231.22)
<b>KPRS Builders Risk: 0.50% Applies to all line item types.</b>				(\$116.77)
<b>KPRS GL Insurance: 0.65% Applies to all line item types.</b>				(\$152.55)
<b>Grand Total:</b>				(\$23,622.54)

→ ST: 23,122.00 x 4% = < 924.88 >

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
 Sean Wisner

08/23/2019 2:54:57 PM

SIGNATURE

DATE

SIGNATURE

DATE

SIGNATURE

DATE



PCO #037

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

Project: 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #037: CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	037 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	8/24 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No	<b>ACCOUNTING METHOD:</b>	Amount Based
<b>LOCATION:</b>		<b>PAID IN FULL:</b>	No
<b>SCHEDULE IMPACT:</b>		<b>TOTAL AMOUNT:</b>	(\$1,317.95)

POTENTIAL CHANGE ORDER TITLE: CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only

CHANGE REASON: No Change Reason

**POTENTIAL CHANGE ORDER DESCRIPTION: (The Contract Is Changed As Follows)**

CE #048 - Bulletin #2 - Exterior Stone Revised Attachment Method Only

This change order is in regards to Bulletin #2, revised exterior stone attachment method at the two West elevations only. Other Bulletin #2 changes will be addressed under separate cover. Attachment will be achieved via Poly Mortar, in lieu of lath and scratch coat. The exterior stone attachment method was revised to ensure structural integrity of attachment method, and has been accepted via approved Bulletin #2 issuance and approval by City of Irvine.

**ATTACHMENTS:**

[PCO #37 Back-up.pdf](#)

#	Cost Code	Description	Type	Amount
1	04-2000 - Unit Masonry	Majestic Masonry COR #001 - Bulletin #2 - Exterior Stone Revised Attachment Method Only	Other	\$ 27,085.09
2	09-2200 - Supports for Plaster and Gypsum Board	NU-Enterprise COR #001 Bulletin #2 - Exterior Stone Revised Attachment Method Only	Other	(\$28,375.12)
<b>Subtotal:</b>				(\$1,290.03)
KPRS P&P Bond: 1.00% Applies to all line item types.				(\$12.90)
KPRS Builders Risk: 0.50% Applies to all line item types.				(\$6.51)
KPRS GL Insurance: 0.65% Applies to all line item types.				(\$8.51)
<b>Grand Total:</b>				(\$1,317.95)

→ ST: \$1,290.03 x 4% = \$51.60



**PCO #039**

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

**Project:** 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #039: CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only**

<b>TO:</b>	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	<b>FROM:</b>	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
<b>PCO NUMBER/REVISION:</b>	039 / 0	<b>CONTRACT:</b>	218073 - Prime Contract
<b>REQUEST RECEIVED FROM:</b>		<b>CREATED BY:</b>	Sean Wisner (KPRS Construction Services, Inc)
<b>STATUS:</b>	Approved	<b>CREATED DATE:</b>	8/26 /2019
<b>REFERENCE:</b>		<b>PRIME CONTRACT CHANGE ORDER:</b>	None
<b>FIELD CHANGE:</b>	No		
<b>LOCATION:</b>		<b>ACCOUNTING METHOD:</b>	Amount Based
<b>SCHEDULE IMPACT:</b>		<b>PAID IN FULL:</b>	No
		<b>TOTAL AMOUNT:</b>	(\$38,793.85)

**POTENTIAL CHANGE ORDER TITLE:** CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only

**CHANGE REASON:** Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION:** *(The Contract Is Changed As Follows)*

CE #050 - Bulletin #2 - Delete Living Wall Landscape & Plumbing Costs Only

This change order request is due to Bulletin #2 for deletion of the living wall only, as noted on landscape, plumbing and architectural plans. Other Bulletin #2 related costs will be submitted under separate cover for trade specific costs.

**ATTACHMENTS:**

#	Cost Code	Description	Type	Amount
1	32-8000 - Landscape and Irrigation	Calpak COR #002 Bulletin #2 - Delete Living Wall Landscape Costs Only	Other	(\$35,817.90)
2	22-0001 - Plumbing	PV&C Plumbing Bulletin #2 - Delete Living Wall Plumbing Costs Only	Other	(\$2,153.94)
<b>Subtotal:</b>				(\$37,971.84)
KPRS P&P Bond: 1.00% Applies to all line item types.				(\$379.72)
KPRS Builders Risk: 0.50% Applies to all line item types.				(\$191.76)
KPRS GL Insurance: 0.65% Applies to all line item types.				(\$250.53)
<b>Grand Total:</b>				(\$38,793.85)

→ ST: 37,971.84 x 4% = (\$1,518.87)

Newport Real Estate Services, Inc.

Irvine Ranch Water District

KPRS Construction Services  
 Sean Wisner

08/26/2019 3:12:37 PM

SIGNATURE

DATE

SIGNATURE

DATE

SIGNATURE

DATE



PCO #041

KPRS Construction Services Inc.  
 2850 Saturn Street  
 Brea, California 92821  
 Phone: (714) 672-0800  
 Fax: (714) 672-0871

Project: 218073 - Sand Canyon Office Building  
 15550 Sand Canyon Avenue  
 Irvine, California 92618

**Prime Contract Potential Change Order #041: CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty**

TO:	Irvine Ranch Water District 15600 Sand Canyon Avenue Irvine California, 92618	FROM:	KPRS Construction Services, Inc 2850 Saturn St Brea California, 92821
PCO NUMBER/REVISION:	041 / 0	CONTRACT:	218073 - Prime Contract
REQUEST RECEIVED FROM:		CREATED BY:	Sean Wisner (KPRS Construction Services, Inc)
STATUS:	Approved	CREATED DATE:	9/7 /2019
REFERENCE:		PRIME CONTRACT CHANGE ORDER:	None
FIELD CHANGE:	No	ACCOUNTING METHOD:	Amount Based
LOCATION:		PAID IN FULL:	No
SCHEDULE IMPACT:	5 days	TOTAL AMOUNT:	(\$14,305.63)

POTENTIAL CHANGE ORDER TITLE: CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty

CHANGE REASON: Client Request

**POTENTIAL CHANGE ORDER DESCRIPTION: (The Contract Is Changed As Follows)**

CE #055 - RFI 92 & 139 & Delta 6 Bulletin 3 Fixture Type E Added Bollard Footing & Deleted Qty

This change order request is due to RFI #92, #139 and Bulletin #3 to provided added scope of work to install footing at Fixture Type E light bollard, and to credit the reduced quantity of fixture Type E as noted on RFI #139 and Bulletin #3.


The attached add/credit cost breakdown provides additional information as to overall credit.

Note, KPRS is excluding the cost for additional soils export for added bollard footings, as this cost will be tracked under separate cover for the overall export, that has been noted in Owner meeting, will exceed engineers estimate.

**ATTACHMENTS:**

#	Cost Code	Description	Type	Amount
1	26-0001 - Electrical	Haveco Electric COR #008 Credit Deleted Fixture Type E	Other	(\$38,597.06)
2	03-0001 - Concrete	H&H COR #007 Added 54 Fixture Type E Bollard Footings Per RFI #92	Other	\$ 21,714.56
3	01-7123 - Field Engineering	TCG COR RFI #92 Added Bollard Footing Engineering 12 Hours for Office Calculations & Field Engineering x \$240/hr =	Other	\$ 2,880.00
Subtotal:				(\$14,002.50)
KPRS P&P Bond: 1.00% Applies to all line item types.				(\$140.03)
KPRS Builders Risk: 0.50% Applies to all line item types.				(\$70.71)
KPRS GL Insurance: 0.65% Applies to all line item types.				(\$92.39)
Grand Total:				(\$14,305.63)

→ ST:  $8/17, 002.50 \times 4\% = \langle 18560.10 \rangle$

December 16, 2019  
Prepared by: T. Bonkowski / M. Cortez  
Submitted by: K. Burton  
Approved by: Paul A. Cook 

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT BIOSOLIDS  
AND ENERGY RECOVERY FACILITIES LANDSCAPING  
FINAL ACCEPTANCE

SUMMARY:

The MWRP Biosolids and Energy Recovery Facilities Landscaping project is complete. IRWD's contractor, Marina Landscape, Inc., has completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

The project installed a complete irrigation system, hardscape improvements, and landscape for the Biosolids site, including the adjacent flood protection berms around the site.

Project Title:	MWRP Biosolids and Energy Recovery Facilities Landscaping
Project Nos.:	04286
Design Engineer:	Kobzeff and Associates Landscape Architects
Construction Management by:	IRWD Staff
Contractor:	Marina Landscape, Inc.
Original Contract Cost:	\$596,474.00
Final Contract Cost:	\$704,484.57
Original Contract Days:	175
Final Contract Days:	216
Final Change Order Approved On:	December 9, 2019

FISCAL IMPACTS:

Project 04286 is included in the FY 2019-20 Capital Budget. The existing budget is sufficient to fund the final payment for the project.



ENVIRONMENTAL COMPLIANCE:

The MWRP Biosolids and Energy Recovery Facilities is subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, a Supplemental Environmental Impact Report, SCH # 2011031091, was certified by IRWD on October 22, 2012. The City of Irvine Planning Commission approved a conditional use permit for the IRWD Biosolids Project on December 6, 2012.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE MWRP BIOSOLIDS AND ENERGY RECOVERY FACILITIES LANDSCAPING PROJECT 04286, AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION, AND AUTHORIZE THE PAYMENT OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

None.



December 16, 2019

Prepared by: J. Baquerizo / N. Hastings /  
A. McNulty

Submitted by: F. Sanchez / P. Weghorst

Approved by: Paul A. Cook



## CONSENT CALENDAR

### WATERSMART SOFTWARE VARIANCE NO. 1

#### SUMMARY:

In 2016, IRWD executed a Professional Services Agreement with WaterSmart Software, Inc. to develop and implement the WaterSmart Program, which provides enhanced water use information to residential, commercial, industrial and institutional customers. The program is an effective tool that promotes water use efficiency and customer engagement through monthly water reports and leak alert notifications, and creates opportunities for customer outreach. Additional funds are necessary for staff to continue to administer the program through the remainder of Fiscal Year (FY) 2019-20 and for FY 2020-21, and to develop additional custom reports and improved program integration with IRWD's billing system. Staff recommends that the Board authorize the General Manager to execute Variance No. 1 to IRWD's Professional Services Agreement with WaterSmart Software Inc. in the amount of \$243,850.

#### BACKGROUND:

The WaterSmart Program was first implemented as a pilot program in 2012 with 1,000 IRWD customers. Based on the amount of water savings and positive customer responses, the program was expanded into a full-scale program that targeted over-allocation, single-family customers in FY 2013-14. The following year the program was expanded to include commercial, industrial and institutional customers. After a competitive bidding process in 2016, IRWD entered into an agreement with WaterSmart Software to continue the program. WaterSmart Software is a proprietary program from a company whose staff has developed a unique understanding of the requirements of IRWD and its customers.

#### Overview of WaterSmart Program:

The WaterSmart Program provides monthly water reports comparing a customer's water use to the water usage of similar households to inform customers about typical and efficient water use. The reports also inform customers about IRWD's programs and incentives for water use efficiency as well as customized ways to save water. The report content is modified for each billing cycle to encourage customers to participate in appropriate programs or events, or to take action to resolve potential leaks.

On average, 40,000 water reports are sent to customers monthly by electronic mail and standard mail. Customers who receive paper reports are encouraged to sign up online to receive electronic reports and to access the Customer Portal, which presents customer water usage information in an easy-to-understand format. Customer response to the program has been very positive and has proven to be an effective way for staff to provide support and assistance to customers.

Variance No. 1 with WaterSmart:

IRWD's Professional Services Agreement with WaterSmart expires on December 31, 2019. Variance No. 1 to the agreement, which is attached as Exhibit "A", would extend the WaterSmart Program through the end of FY 2020-21. Variance No. 1 also includes a scope of work to perform the following tasks:

- Develop custom reports that will enable staff to validate and update customer variance information and email addresses from WaterSmart to IRWD's billing system; and
- Incorporate Invoice Cloud bill payment functionality within the WaterSmart Customer portal, which will provide easier and streamlined payment options to IRWD customers. This task would be implemented at the direction of the Finance and Administrative Services Department.

Staff negotiated the costs associated with Variance No. 1 and finds the variance to be fair and reasonable. Staff recommends that the Board authorize the General Manager to execute Variance No. 1 to the Professional Services Agreement with WaterSmart Software in the amount of \$243,850.

FISCAL IMPACTS:

Funding for the WaterSmart Program is included in the adopted FY 2019-20 and FY 2020-21 Operating Budget.

ENVIRONMENTAL COMPLIANCE:

IRWD's WaterSmart Program is not a project as defined in the California Environmental Quality Act as authorized under the California Code of Regulations, Title 14, Chapter 3 and Section 15378.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on December 9, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 TO THE PROFESSIONAL SERVICES AGREEMENT BETWEEN IRWD AND WATERSMART SOFTWARE, INC. IN THE AMOUNT OF \$243,850.

LIST OF EXHIBITS:

Exhibit "A" – WaterSmart Software Variance No. 1

**Exhibit "A"**

**IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE**

Project Title: WaterSmart Reports Program

Project No.: \_\_\_\_\_ Date: January 1, 2020

Purchase Order No.: 607958 Variance No.: 1

Originator:  IRWD  ENGINEER/CONSULTANT  Other (Explain) \_\_\_\_\_

Description of Variance (*attach any back-up material*):

This variance is to extend the current program contract through fiscal year 2020/21. The variance amount will increase the current contract to \$243,850, provide funding for WaterSmart to build custom reports and embed Invoice Cloud payment functionality.

**Engineering & Management Cost Impact:**

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Program Administration FY 20/21				\$232,350		\$232,350
Customer Indoor Variance Report				\$2,000		\$2,000
Customer Outdoor Variance Report				\$2,000		\$2,000
Customer Email Verification Report				\$2,000		\$2,000
Embed Invoice Cloud				\$5,500		\$5,500
<b>Total \$ =</b>						<b>\$243,850</b>

**Schedule Impact:**

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
1	Program Administration	Jan 2016 – Dec 2019	1.5 year renewal	Jan 2020 – June 2021

**Required Approval Determination:**

Total Original Contract	<u>\$ 489,510</u>	<input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000.
Previous Variances \$0	_____	
This Variance	<u>\$243,850</u>	<input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000.
Total Sum of Variances	<u>\$243,850</u>	
New Contract Amount	<u>\$733,360</u>	<input type="checkbox"/> Board: Single Variance greater than \$60,000.
Percentage of Total Variances to Original Contract	<u>50</u> %	
		<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.

ENGINEER/CONSULTANT: Water Smart Software Inc.

IRVINE RANCH WATER DISTRICT

Company Name

*Az McHarty*  
Project Engineer/Manager

11/27/19  
Date

\_\_\_\_\_  
Department Director

\_\_\_\_\_  
Date

*R. Anderson*  
Engineer's/Consultant's Management

11/29/19  
Date

\_\_\_\_\_  
General Manager/Comm./Board

\_\_\_\_\_  
Date

# IRVINE RANCH WATER DISTRICT

## PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: WaterSmart Reports Program

Project No.: \_\_\_\_\_ Project Manager: Amy McNulty

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Contract extension and customization	1/1/20		\$243,850



## **Scope of Work and Budget Description for Variance No. 1**

This scope of work is to continue to provide services for the remainder of FY 2019-20 and FY 2020-2021. The below pricing, established in the October 10, 2016 agreement, includes the core WaterSmart Platform: Utility Dashboard and Portal, mobile access, My Use Notifications and Group Messenger, and leak alerts. In addition, there will be two enhancements to the Utility Dashboard, work to embed InvoiceCloud compatibility, and the development of three customized reports.

1. The core Program Design includes the following:
  - a. Up to 6,000 print Home Water Reports pushed out monthly
  - b. Unlimited email Home Water Reports pushed out monthly
  - c. WaterSmart will select Home Water Report recipients as follows:
    - i. All new account holders, enrolled on a rolling basis. New accounts without an email address on file will receive print Home Water Reports for a maximum of six months, after which they will be removed from the recipient group. If they provide their email address at any time in the first six months, they will continue to receive Home Water Reports by email for the duration of this contract.
    - ii. All single-family residential accounts that have been over their allocation by at least 5 CCF for at least three of the last twelve months. WaterSmart will update this group every six months, removing accounts that no longer meet the criteria and adding accounts that do. The account selection thresholds may be adjusted



at any time to maintain alignment with the report capacity included in the program design.

iii. Any IRWD customer who opts in to receive email Home Water Reports.

2. WaterSmart will add the following enhancements requested by IRWD to the Utility Dashboard in 2020:

- a. Four new columns to the Group Messenger downloadable report: date opened; time opened; date clicked; time clicked (target date: Q1)
- b. Inclusion of a variable for irrigable square feet in Group Messenger (target date: Q2)

3. WaterSmart will work to embed the InvoiceCloud payments functionality within the WaterSmart Customer Portal.

4. The development of the following reports to be added by June 30, 2021:

- a. Customer Indoor Variance Report: this report will identify accounts with additional people data that is greater than what is on file in the IRWD billing database.
- b. Customer Outdoor Variance Report: this report will identify accounts with larger landscape areas than the areas that are on file in the IRWD billing database.
- c. Customer Email Verification Report: this report will improve customer email addresses on file in the IRWD billing database.


Table 1 shows the pricing for the remainder of fiscal year (FY) 2019-20 and FY 2020-21.

**Table 1**

Item	Cost
FY 2019-20 (6 months): Program fee	\$77,450
FY 2020-21: Program fee	\$154,900
Utility Dashboard Enhancements	No cost
Embed InvoiceCloud	\$5,500
Customer Indoor Variance Report:	\$2,000
Customer Outdoor Variance Report:	\$2,000
Customer Email Verification Report:	\$2,000
<b>Total:</b>	<b>\$243,850</b>

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December 16, 2019  
Prepared by: E. Lin  
Submitted by: C. Clary  
Approved by: Paul A. Cook 

## CONSENT CALENDAR

### FY 2018-19 COMPREHENSIVE ANNUAL FINANCIAL REPORT

#### SUMMARY:

The District's auditor, Davis Farr LLP, has completed its annual audit of the District's financial statements for the Fiscal Year (FY) ended June 30, 2019. As stated in its report, Davis Farr concluded that in all material aspects, the statements fairly present the District's financial position as of June 30, 2019 and conform with generally accepted accounting principles.

#### BACKGROUND:

A draft of the Comprehensive Annual Financial Report (CAFR), including the Introductory Section, audited financial statements, accompanying auditor's report, Management's Discussion and Analysis, and Statistical Section is attached as Exhibit "A".

At the Finance and Personnel Committee meeting, Davis Farr presented its required Auditor Communication pursuant to Statement on Auditing Standards 114 *The Auditor's Communication with Those Charged with Governance*. This letter, attached as Exhibit "B", reflects the auditor's understanding of key management assumptions and practices and indicates that there were no disagreements with management during the scope of the audit. The auditors also provided a *Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards*, attached as Exhibit "C", which stated that the audit did not identify any material weakness deficiencies in internal control. In addition, the report stated that the result of the audit disclosed no instances of noncompliance or other matters that were required to be reported under government auditing standards.

The FY 2018-19 CAFR was prepared for the sixteenth consecutive year by the District. All of IRWD's previous CAFRs have won awards from the Government Finance Officers Association (GFOA), which encourages state and local governments to prepare and publish expanded financial reports in conformity with generally accepted accounting principles (GAAP) and provides awards to recognize contributions to the practice of government finance that exemplify outstanding financial management. The awards stress practical, documented work that offers leadership to the profession and promotes improved public finance.

Staff will continue to produce an enhanced electronic version with key references hyperlinked throughout the document. The CAFR will also be posted on the IRWD website.

#### FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act (CEQA), Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on November 5, 2019.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit "A" – Draft FY 2018-19 Comprehensive Annual Financial Report

Exhibit "B" – SAS 114 Auditor's Communication with Those Charged with Governance from  
Davis Farr LLP

Exhibit "C" – Report on Internal Control over Financial Reporting and on Compliance and Other  
Matters Based on an Audit of Financial Statements Performed in Accordance with  
Government Auditing Standards from Davis Farr LLP





Irvine Ranch Water District  
Irvine, California

# COMPREHENSIVE ANNUAL FINANCIAL REPORT

for fiscal year ended June 30, 2019



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# Comprehensive Annual Financial Report

For fiscal year ended June 30, 2019

Irvine Ranch Water District  
Irvine, California

## Board of Directors

Steven E. LaMar, President

Mary Aileen Matheis, Vice President

Douglas J. Reinhart

Peer A. Swan

John B. Withers

## General Manager

Paul A. Cook

## Prepared by:

Irvine Ranch Water District

Finance Department

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# Introductory Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2019

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December 16, 2019

To The Board of Directors,  
Irvine Ranch Water District:

Management of the Irvine Ranch Water District (IRWD or the District) has prepared a Comprehensive Annual Financial Report of IRWD for the fiscal year ended June 30, 2019. This document, which contains a complete set of basic financial statements, is presented in conformity with generally accepted accounting principles (GAAP) and audited in accordance with generally accepted government auditing standards by a firm of licensed certified public accountants. State law requires that all special-purpose local governments publish these basic financial statements within six months of the close of the agency's fiscal year.

This report contains management's representations concerning the finances of the District. Management assumes full responsibility for the completeness and reliability of the information contained in this report. To provide a reasonable, rather than absolute, basis for making these representations, IRWD management has established a comprehensive framework of internal controls. These controls are designed to protect the District's assets from loss, theft, or misuse, and to ensure sufficiently reliable information for the preparation of the District's basic financial statements in conformity with GAAP. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the basic financial statements are free of any material misstatements. As management, we assert that this financial report is complete and reliable in all material respects.

The District's basic financial statements have been audited by Davis Farr LLP, a firm of licensed certified public accountants. The goal of the independent audit was to provide reasonable assurance that the basic financial statements of the District for the fiscal year ended June 30, 2019 were free of material misstatements. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the basic financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. The independent auditor rendered an unmodified opinion that the District's basic financial statements for the fiscal year ended June 30, 2019 are fairly presented in conformity with GAAP. The independent auditor's report is presented as the first component of the financial section of this report.

A profile of the District is presented in this Introductory Section. In the Financial Section, Management's Discussion and Analysis (MD&A) immediately follows the independent auditor's report and provides an overview and analysis of the basic financial statements. This letter of transmittal and introduction is designed to complement the MD&A and should be read in conjunction with it.

# Profile of Irvine Ranch Water District

## Overview

Irvine Ranch Water District was established in 1961 as a California Water District under the provisions of the California Water Code. As a special district, IRWD focuses on four primary services - providing potable water, collecting sewage, producing and distributing recycled and other non-potable water, and implementing urban runoff source control and treatment programs.

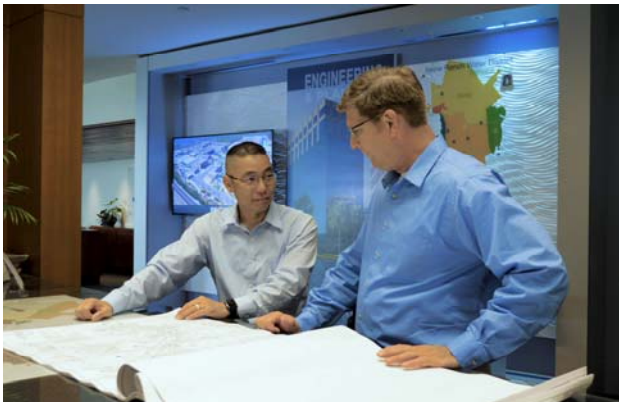
IRWD is an independent public agency governed by a five-member, publicly elected Board of Directors. The members of the Board each have varied professional backgrounds, coupled with an average tenure for the Board members of approximately 25 years. The District is a leader in developing and implementing resource management initiatives such as water recycling, urban runoff control and treatment, water efficiency, and water banking. The District is a pioneer in financial management practices such as variable rate debt financing and long-term infrastructure replacement program development and funding.

The District serves a 181 square mile area, which includes all of the City of Irvine and portions of the cities of Tustin, Newport Beach, Costa Mesa, Orange and Lake Forest, as well as certain unincorporated areas of Orange County. Extending from the Pacific Coast to the top of the foothills of eastern Orange County, the District's region is semi-arid with a mild climate and an average annual rainfall of approximately 12 inches. The total estimated daytime population served is approximately 600,000 and includes approximately 117,000 water and 111,000 sewer service and recycled water connections. The number of service connections has increased by approximately 21% over the last ten years.

The District provides its core services to its customers by focusing on the following areas:

- *Operational Reliability* – having multiple sources of water supply, various sewage treatment alternatives, and emergency power capabilities to ensure reliable services.
- *Organizational Strength* – having professional staff work in close collaboration with the Board of Directors striving to exceed the expectations of our customers.
- *Long-Term Financial Planning* – ensuring sufficient funds are available to construct, operate, maintain, and replace facilities, while retaining competitive rates now and in the future.

## People



The District employs approximately 400 staff who are responsible for administering daily operations and implementing strategic objectives and policies set forth by the Board. The District actively promotes the training and education of employees to increase effectiveness and retention. The average tenure of District employees is approximately 10 years.

## Services

The District is functionally organized into four core service areas:

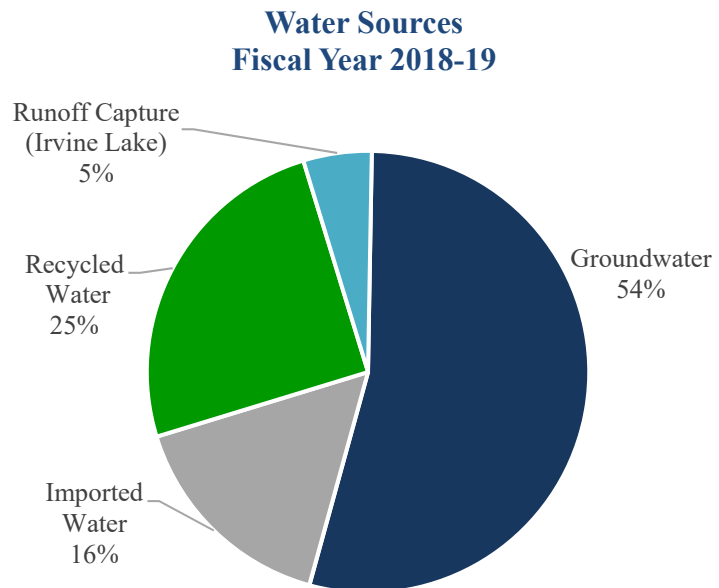
### Drinking or “Potable” Water System

For many years, the District received virtually all of its drinking water from imported sources. To minimize this dependence on imported water, in the early 1980’s, the District developed a series of local wells known as the Dyer Road Wellfield to access high quality groundwater from the Orange County Groundwater Basin, managed by the Orange County Water District (OCWD).

IRWD also operates many other groundwater wells with water from some of these wells requiring treatment. In Fiscal Year (FY) 2018-19, local groundwater accounted for 54% of the District’s total water supply.

Groundwater currently is significantly less expensive, more reliable, and less energy intensive than imported water that is transported over hundreds of miles into Southern California and subsequently treated.

The District purchased 16% of its water supply in FY 2018-19 from the Municipal Water District of Orange County (MWDOC), the region’s local wholesale water supplier. This water is imported from both the Colorado River, which is transported approximately 240 miles through deserts and over mountain ranges to Southern California, and from the Delta, from which water is transported approximately 400 miles from Northern California.



### Recycled and Non-Potable Water Systems

The District treats sewage to provide water for irrigation, commercial, industrial and agricultural purposes which further reduces its reliance on the more expensive imported water and increases its system reliability. Sewage from the community is collected and recycled to California State Water Resources Control Board Title 22 standards at the Michelson Water Recycling Plant and the Los Alisos Water Recycling Plant, which have the combined capacity to produce nearly 33.5 million gallons of tertiary recycled water per day. The District produced and utilized over 7 billion gallons in the current fiscal year.

Once treated, the recycled water is distributed throughout the service area and in FY 2018-19 accounted for approximately 25% of the District’s total water supply. Approximately 80% of all business and community landscaped areas (parks, school grounds, golf courses, street medians, etc.) in the District’s service area are irrigated with recycled water. The District also provides recycled water for various industrial and commercial uses. IRWD’s goal is to recycle its sewage flows whereby recycled water will represent 25% to 30% of its total water supply after the District’s service area is fully developed.



The District operates a non-potable system which includes 5 wells, 5 open reservoirs and 12 tanks that store water for non-potable uses. In total, the District has approximately 4,500 acre feet of active recycled water storage capacity. IRWD has a majority ownership in Irvine Lake, a 25,000 acre-feet reservoir that can capture and store stormwater and can also store imported water supplies.

### **Sewage Collection and Treatment System**

The District has an extensive network of gravity sewers, force mains, sewage lift stations, and siphons that convey sewage to two District-owned water recycling plants or the Orange County Sanitation District (OCSD). In FY 2018-19, the District treated approximately 77% of its sewage while the remainder of the sewage collected by the District was diverted to the OCSD treatment facilities. The District plans to expand its treatment capacity when necessary to serve its growing population. This expansion is discussed in more detail in the *Major Initiatives* section of this document.

### **Urban Runoff Source Control and Treatment System**

IRWD is statutorily authorized to control and treat urban runoff, and conducts various projects and programs as part of an effort to protect water quality in the San Diego Creek watershed. In the 1990s, the District constructed wetlands at the San Joaquin Marsh where natural biological processes remove a substantial pollutant load from San Diego Creek dry weather flow before it reaches the environmentally sensitive Upper Newport Bay State Ecological Reserve. The District operates a regional urban runoff treatment network known as the Natural Treatment System (NTS). As of June 30, 2019, the NTS consists of 39 constructed wetland treatment sites located throughout the San Diego Creek Watershed and one outside of the IRWD service area with several more currently under construction. In addition, IRWD has recently added an urban runoff diversion facility along Peters Canyon Wash, which pumps runoff resulting from selenium-rich high groundwater into OCSD's sewers, eventually flowing to OCWD's groundwater replenishment system.



**San Joaquin Marsh**

## Infrastructure Assets

The District builds and maintains significant capital infrastructure in order to provide superior service to its customers. The table below provides key information relating to its water and sewer system assets from 2010 to 2019.

Infrastructure Assets		
	<u>2010</u>	<u>2019</u>
<b>Potable System</b>		
Miles of Water Line	1,169	1,919
Number of Storage Tanks	37	36
Maximum Storage Capacity (acre feet)	456	456
Number of Pumping Stations	43	39
Number of Wells	24	27
Well Production Capacity (cfs)	117	118
Water Banking Storage Capacity (acre feet)	107,600	126,000
Potable Treatment Plants	3	5
<b>Non-Potable and Recycled Systems</b>		
Miles of Recycled Line	407	565
Number of Storage Tanks	11	12
Number of Open Reservoirs	4	5
Maximum Storage Capacity (acre feet)	23,703	24,155
Number of Pumping Plants	19	19
Number of Wells	5	5
Well Production Capacity (cfs)	10	10
<b>Sewer System</b>		
Miles of Sewer Line	940	1,134
Number of Lift Stations	18	23
Treatment Plants	2	2
Treatment Capacity (mgd) (Tertiary)	23.5	33.5
Sewage Flows to Michelson Plant	66%	65%
Sewage Flows to Los Alisos Plant	14%	12%
Sewage Flows to Orange County Sanitation District	20%	23%
1 acre foot = 325,900 gallons		
cfs = cubic feet per second		
mgd = millions gallons per day		

## 2019 Accomplishments

The District has a Strategic Planning Process where the Board annually adopts goals and annual target activities. The approved Target Activities are associated with eighteen goals for the District to accomplish within the next five years. Major accomplishments achieved in FY 2018-19 are:

1. Implemented a 2-year budget and Proposition 218 noticing.
2. Executed key agreements to optimize Irvine Lake as a water resource facility for IRWD, and its partners. Resolved issues regarding use of Irvine Lake for water rights and quality and participated in developing an interim agreement to initiate fishing at the lake.
3. Completed construction and initiated start-up of the \$200 million Michelson Water Recycling Plant Biosolids & Energy Recovery Facilities capital project for the handling of solids, which will cost effectively provide resource recovery of solids and gas for IRWD.
4. Continued to promote water use efficiency and long term conservation measures leading District's customers to have one of the lowest residential gallons per capita per day (gpcd) rates in California. In 2018-19, IRWD's residential water use (indoors and outdoors) averaged 64 gpcd, which was 35% lower than the statewide average of 99 gpcd.
5. Completed triennial Benchmark Salary Survey to ensure District salaries remain competitive to market rates.
6. Completed new three-year labor agreements with represented personnel.
7. Initiated construction of the remaining Sand Canyon Office property. The investment contributes to keeping customer rates low.
8. Implemented re-designed customer bill to enhance customer understanding and communication.
9. Fully funded IRWD employee pension plan, including the Pension Plan Trust which contains funds adequate to cover the District's CalPERS projected pension liability as of the current fiscal year end.
10. Received the United States Environmental Protection Agency's WaterSense Excellence Award and the Silver Anvil Award for Community Outreach from the Public Relations Society of America.



**Biosolids and Energy Recovery Facilities**

## Future Goals

The District has the following Board adopted goals for IRWD to accomplish within the next five years, along with Target Activities that are typically accomplished within 12 to 18 months:

1. Optimize and protect local water supply utilization: develop and implement projects to increase IRWD's access to local groundwater and stormwater capture.
2. Evaluate and invest in projects and programs that will enhance future long-term water supply reliability: pursue projects and supply arrangements to enhance water supply reliability, including increased water banking and water recycling. Provide additional water storage opportunities for regional water supply reliability.
3. Optimize use of Irvine Lake as a water resource facility for IRWD and its partners: resolve property related issues and implement projects which will enhance the safety of the reservoir.



4. Develop water banking recharge, storage, and extraction capacity for IRWD and water banking partners, and store water as it becomes available: continue development of IRWD water banking facilities in Kern County.
5. Develop and implement the Kern Fan Groundwater Storage Project: execute agreements and secure additional water storage investment funding.
6. Develop water recycling facilities and applications for optimal benefit: identify new opportunities for IRWD to utilize recycled water locally.
7. Maximize resource recovery from fully functional biosolids and other resource recovery facilities: continue start-up of IRWD’s Biosolids and Energy Recovery Facilities.
8. Improve energy service reliability, manage demands, and control costs: implement cost-effective battery storage and solar power installations. Develop capability to continue operation of key facilities during short and long-term power outages.
9. Maximize watershed protection: control and treat urban runoff while preventing sewer spills.
10. Ensure financial and rate stability: ensure adequate funding for future infrastructure replacement needs, continue to provide low rates for IRWD customers, maintain strong financials through solid debt coverage, liquidity balances, mixed debt profile, and pension plan obligation funding of at least 90 percent.
11. Identify, assess and implement new technologies and systems to improve operating efficiency: implement new systems such as Enterprise Asset Management while protecting existing and future systems through advanced cybersecurity measures.
12. Enhance customer communications: Implement improved customer web access portal and strategically extend community outreach.
13. Maximize water use efficiency in the community: explore future opportunities for increased water use efficiency and expand database for improved analytics.
14. Recruit, develop and retain a highly skilled, motivated, and educated work force: develop employee skills, develop and implement employee expectations for corporate values and ensure appropriate employee compensation.
15. Guide and lead local, state and federal policies and legislation: actively engage in issues of key interest to IRWD including water use efficiency, water rate structures, and others.
16. Engage and shape policies and regulations put forth by local, state and federal agencies: influence regulations to align with best practices for recycled water use and other applications.
17. Increase collaboration with other agencies and entities through leadership and innovation: engage at a high-level in industry associations, regional water agencies, and development of opportunities of mutual benefit for IRWD and partners.
18. Implement opportunities that enhance safety, security, and emergency preparedness throughout the District: protect the health and safety of IRWD employees and facilities.

## Water Use Efficiency

The District continues to be a leader in the innovation and implementation of water use measures that promote the most efficient use of water, both on a per capita and per acre basis.

The District’s budget-based tiered rate structure, implemented in 1991, was carefully designed to promote the efficient use of water by providing customers pricing signals related to over-use of water in a financially sustainable way. This structure is recognized as a model for other agencies to emulate.

In 2016, Governor Brown issued an Executive Order calling for Californians to build on the actions taken during the recent statewide drought, and to “Make Conservation a Way of Life in California”. In response, legislation requiring statewide long-term water use efficiency passed in 2018. As a result, the

state will establish new long-term water efficiency objectives by June 30, 2022. IRWD has a long history of implementing cost-effective water efficiency programs, and it is well prepared to meet the future efficiency standards. The District’s customers have one of the lowest residential gallons per capita per day (gpcd) rates in California.

The District’s Water Use Efficiency Plan provides a comprehensive strategy that includes environmental considerations and addresses the considerable financial benefits of water use efficiency for the District and its customers. Specifically, the Plan addresses:

- Increasing water demands and the impact to the District’s unit cost of water, which would increase if the District needed to purchase more expensive imported water.
- Reducing urban runoff (typically the result of “over-watering”) which minimizes water quality degradation from fertilizers, pesticides and animal waste in creeks, rivers and the ocean.
- Reducing water demands, which reduces energy usage and related costs needed to convey water.
- Reducing water use indoors, which results in reduced sewage generation and attendant treatment costs and capital costs for additional infrastructure.

The basic tenets of the Water Use Efficiency Plan include local, state and national policy development and leadership, rate structure improvements, focused customer interface, extensive education and outreach, technology advances, and the development of financial incentives.

During the past fiscal year, the District provided financial incentives to residential and business customers to install water efficient devices such as high efficiency clothes washers, toilets, irrigation equipment, and conversions from high water use turf landscape to water-efficient landscapes. Due to the investments made by the District to diversify its resources, expand the use of recycled water and improve water use efficiency, IRWD provides reliable, high quality water to its customers in a cost effective manner.

The District has also led the use of recycled water beginning in the late 1960s and presently serves over 6,100 sites, with approximately 28,000 acre feet of recycled water sold in FY 2018-19 representing 25% of the District’s total water supply. The use of recycled water reduced the District’s need to import more expensive potable supplies.

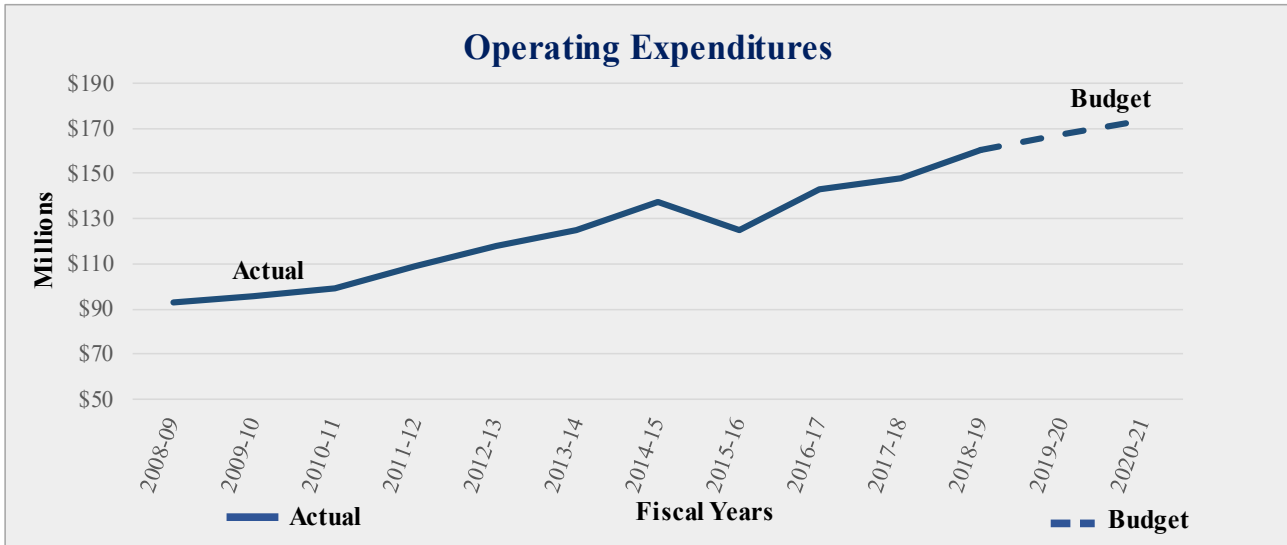
## **Legislative and Regulatory Affairs**

The District actively monitors and works to influence local, state and federal legislation, policies and regulatory actions that could affect IRWD’s operations, existing and future facilities and strategic planning efforts. The Board of Directors is frequently engaged in, and takes active positions on, relevant pending legislation and regulatory actions. The District continues to engage proactively in policy discussions surrounding water use efficiency, recycled water, and water rates in California. The District and its Board of Directors also participate in state and regional trade associations including the Association of California Water Agencies, the California Association of Sewer Agencies, the Water Reuse Association, the California Special District Association, and the California Municipal Utilities Association.

## **Financial Plan**

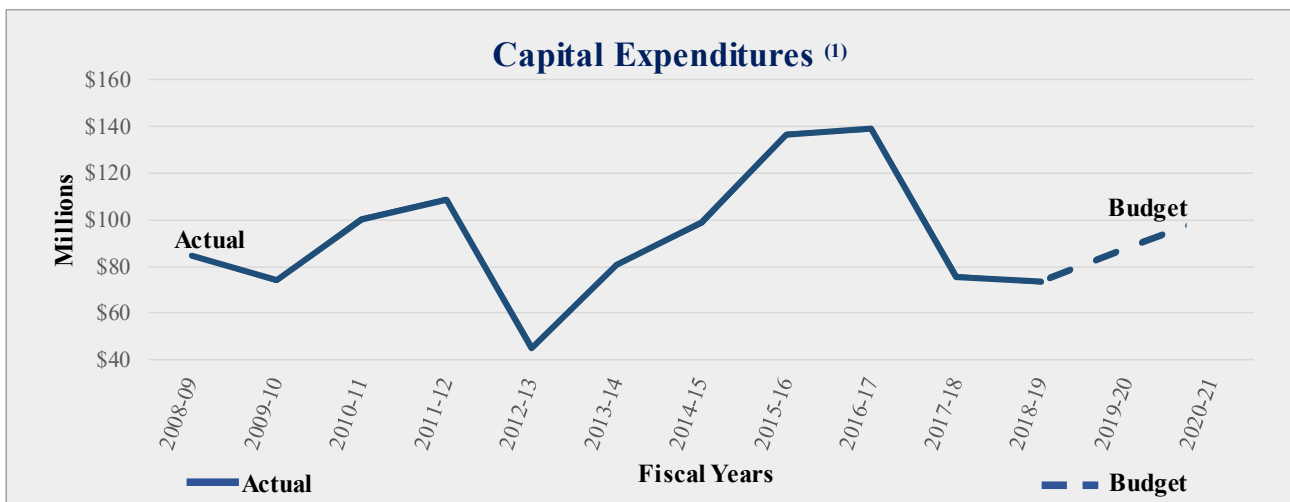
New this year, the Board approved a two-year (biennial) operating budget to improve IRWD’s long term planning, enhance funding stability, and create greater efficiency in the budgeting process. The goal of the District’s operating budget process is to appropriately fund the resources required to provide

excellent service to IRWD customers as cost-efficiently as possible. The graph below shows the actual operating expenditures through FY 2018-19, as well as the Board approved operating budgets for FY 2019-20 and 2020-21. Increases reflect costs associated with customer growth within the District, as well as an increase in overall operating expenses. Increases have been kept to a minimum by aggressively pursuing reductions in expenses to offset uncontrollable expenses, such as pass-through rate increases from outside agencies.



The approved FY 2019-20 budget increased to \$167.0 million from \$157.1 million or 6.3% from FY 2018-19 and to \$173.6 million or 4.0% in FY 2020-21. The primary reasons were increases in labor and associated benefits for additional positions necessary to support new operating facilities, increases in the cost of water due to rate increases from outside agencies, and higher operating and maintenance costs associated with new facilities coming on line. The decrease in FY2015-16 expenses is primarily due to lower water demands.

The Board also approved a two-year capital budget based on new, enhancement and replacement infrastructure needs. The following chart shows the actual capital expenditures through FY 2018-19 and the budget for FY 2019-20 and FY 2020-21.



(1) Actual capital expenditures excluding overhead, intangibles and capitalized interest.

The reduced spending in 2012-13 and 2017-18 from prior years represents the District's completion of several projects including the MWRP Upgrade Project, the Baker Water Plant, and the subsequent design phase for the Michelson Biosolids and Energy Recovery Facilities, which began construction in FY 2013-14. The Board approved capital budget was \$90.9 million for FY 2019-20 and \$93.8 million for 2020-21. Many capital budget projects extend beyond one fiscal year.

## **User Rates & Charges**

User rates and charges are primarily used to fund the District's operation and maintenance expenses. The District separates the cost of constructing water and sewer infrastructure from the cost of daily operations and maintenance. User rates, as discussed below, are billed to customers on a monthly basis, and include a component for the inevitable replacement of existing infrastructure. The District sets replacement monies aside in advance to help stabilize rates and avoid significant potential future rate impacts. In 2015, the District completed a detailed cost of service study which confirmed that user rates billed to customers are based on actual costs to provide the services.

The District allocates capital costs within its service area through the use of water and sewer improvement districts, for which general obligation bond authorization is obtained and used as needed to fund new capital projects. Ad valorem property tax rates are set annually by the District, as are connection fees paid by property developers and landowners. Generally, the District's policy is to allocate the cost of new infrastructure evenly between the developers/landowners and the ultimate property owners who utilize the water and sewer infrastructure.

### **Water Rates**

The District's rate structure for water use is separated into a commodity charge component and a fixed service charge component. The commodity charge reflects the cost of providing the District's water supplies while the fixed service charge funds the fixed operational and maintenance expenses of the District. For FY 2018-19, the District's water fixed service charge was \$10.35 per month. The District has a long history of planning for the inevitable replacement of capital infrastructure, and sets monies aside into enhancement and replacement funds for this purpose. In FY 2018-19, the monthly fixed service charge includes a user enhancement and replacement component of \$0.70 and \$2.10, respectively, per month, intended to fund current and future replacement and refurbishment costs that provide reliability and redundancy to the District's infrastructure.

The District has a four-tiered rate structure that promotes water use efficiency. A basic use allocation is established for each customer account that provides a reasonable amount of water for the customer's needs based on factors such as the number of occupants, type or classification of use, size of the irrigated area, evapotranspiration rate for the billing period and other consistently applied criteria. The chart below illustrates the four-tier structure that reflects the increased cost associated with usage in the higher tiers.

## FY 2018-19 Residential Rate Structure – Potable Water (Commodity Charge)

Tier	Percent of Estimated Customer Need	Cost per ccf
Low Volume	0 – 40%	\$1.40
Base Rate	41 – 100%	\$1.89
Inefficient	101 – 140%	\$4.73
Wasteful	141% +	\$13.35

One ccf (100 cubic feet) = 748 gallons

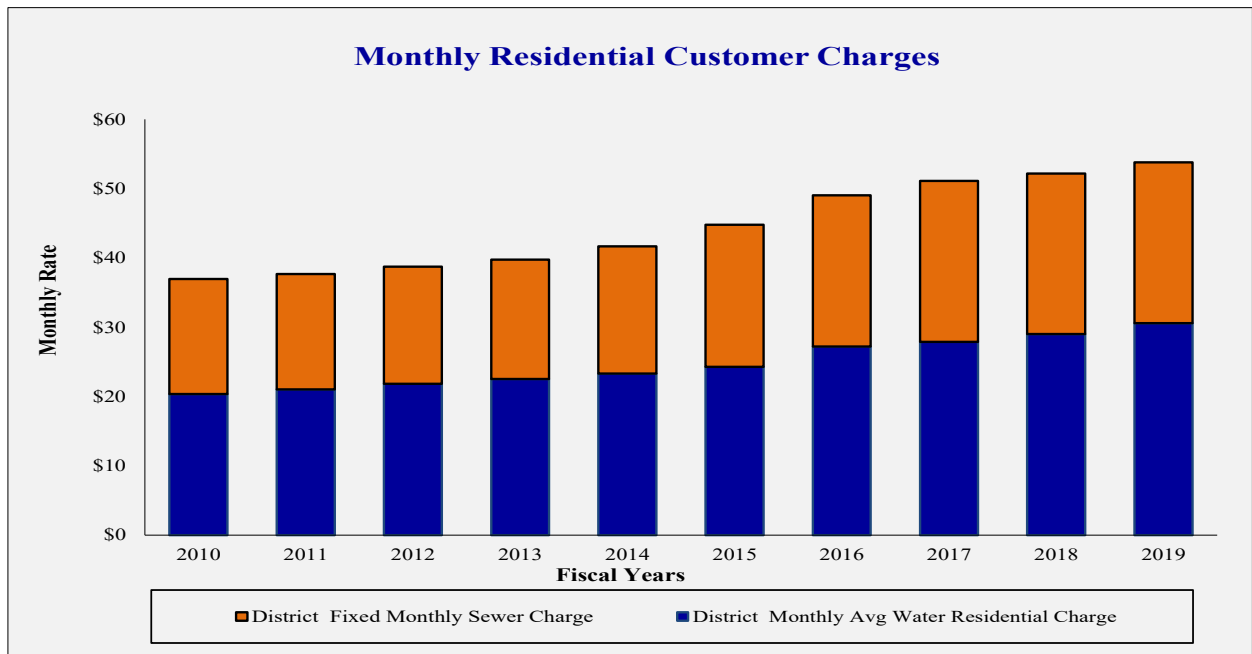
As of June 2019, approximately 81% of the District’s customers were within the first two tiers and approximately 94% of customers fell within the District’s first three tiers. IRWD residential bills are consistently among the lowest in Orange County.

### Sewer Rates

The District’s sewer rates are also among the lowest in Orange County, with a fixed monthly service charge of \$23.20 in FY 2018-19 for a typical residential customer covering the collection and treatment of sewage. This monthly service charge includes a user enhancement and replacement component of \$0.82 and \$9.31, respectively, per month, which is intended to fund current and future capital costs to replace, refurbish and upgrade the existing system. The monthly service fee of \$9.31 includes \$3.00 to fund the replacement portion of the Michelson Biosolids and Energy Recovery Facilities discussed in more detail under *Major Initiatives – Expanded Water Recycling Options and System Reliability*.

### Historic Rate Trends

The following chart reflects the annual “base rate” charge for an average customer’s water and sewer service through FY 2018-19. The District has raised rates in each of the last several years due largely to increased costs from outside agencies or wholesale supplies and increased fixed service costs for both water and sewer, including funding for future infrastructure replacement.



## Factors Affecting Financial Condition

The information presented in the Financial Section is best understood in the context of the economic environment in which the District operates, as discussed below.

### State and Local Economy

Orange County is the third most populous county in California with nearly 3.2 million residents and a varied economy in which no single industry is considered dominant. With a location central to Orange County, the District's service area is the home to numerous corporate headquarters such as Oakley, Edwards Life Sciences, Blizzard Entertainment and Glidewell Laboratories. The District is also home to various educational institutions, including University of California Irvine, Concordia University, two community colleges, and other colleges and universities with satellite campuses. The total estimated daytime population served is in approximately 600,000.

During FY 2018-19, the District continued to expand its operating facilities to accommodate approximately 4,700 new water and sewer service connections constructed within District boundaries. Development and entitlement needs of the builders continue to change and there remains less than 20% left for future development, including the Northern Sphere area of Irvine, Lake Forest and property from two de-commissioned military bases. Requirements for these areas have been included in the planning and these facilities are included in the capital budget. The assessed value of land within the District's service area has grown significantly in the last decade from \$34.8 billion in 2010 to more than \$66.3 billion in 2019, demonstrating the strength of the local economy.

The State of California's financial condition has historically impacted local governments such as cities, counties and special districts. In 1992, special districts were subjected to legislation that could shift substantial amounts of property tax revenue to the State.

### Long-Term Conservation

In 2016, Governor Brown issued an Executive Order calling for Californians to build on the actions taken during the recent statewide drought, and to "Make Conservation a Way of Life in California". In response, legislation requiring statewide long-term water use efficiency passed in 2018. As a result, the state will establish new long-term water efficiency objectives by June 30, 2022. IRWD has a long history of implementing cost-effective water efficiency programs, and is well prepared to meet the future efficiency standards. The District is well positioned to sustain any potential reduction in revenues and meet future efficiency targets with minimal impact on net revenues due to its rate structure which effectively splits costs into variable and fixed rate components. Any decrease in consumption would be offset by a decrease in related variable costs while the fixed rate component would cover the fixed operating and maintenance costs.

## Financial Planning & Budgeting

### Short-Term

The Board of Directors approves operating and capital budgets every two years and allocates required funding accordingly. The General Manager has limited discretion to transfer capital between activities and Board approval is required for any overall increase or substantial changes. Throughout the fiscal year, actual expenditures are compared to budget. Variances between budget and actual results are analyzed and evaluated to ensure the District's financial goals and objectives are being met. The budget process is further supported by the District's long-term financial models, enabling the Board to make



informed decisions on setting rates and charges that ensure the long-term stability of the District. Funding needs are assessed using these financial planning models.

### **Long-Term**

Meeting the goals of reliable, cost effective long-term water and sewer service requires substantial planning for both capital improvements and changing operating conditions. The District's capital program anticipates the need to update, expand or provide redundancy as well as refurbish and replace existing facilities as they reach the end of their useful life. District staff identifies future infrastructure requirements well in advance of needs to ensure the necessary funding for those projects is available. Capital projects are funded through a combination of connection fees, property taxes and user rates.

The District has a long history of planning for the enhancement and replacement of aging water and sewer infrastructure. Recognizing that infrastructure replacement is both inevitable and costly, the District established infrastructure Enhancement and Replacement Funds to provide funding for updating, expanding, creating redundancy, as well as replacing and refurbishing various components of the water and sewer systems. The objective of the funds is to help moderate the financial impact on future user rates attributable to expenditures associated with enhancing and replacing capital facilities. For FY 2018-19, the combined water and sewer user enhancement/replacement fees were \$12.93 per month.

Over time, the District has evolved from a newly developing area to becoming a fully developed area. While many of the projects slated for construction will provide additional capacity for ultimate demands, the focus of the District is transitioning from building new infrastructure projects to ongoing operations and maintenance activities, as well as upgrading and replacing existing infrastructure. Connection fees paid by developers, which generated \$32.7 million for new capital in FY 2017-18 declined to \$18.2 million in 2018-19 as the District nears build-out. The District utilizes a sophisticated financial model to factor in such variables as future development, construction costs, growth rates, inflation, redevelopment and other criteria in order to project rate setting for funding future capital needs.

In 2013, the District completed a strategic review of its existing current capital funding plan which resulted in a master consolidation plan that combined certain improvement districts in order to maintain the future financial viability of each area. The master plan allocates funding responsibility for capital improvements to the areas which will benefit from those respective facilities and separates areas on the basis of projected timing of development. Diversification of the District's water supply and sewage treatment options are also major objectives of the District's master plan. Those objectives are discussed in further detail in the *Major Initiatives* section of this introduction.

The District's approach to infrastructure replacement and funding reflects industry best practice and illustrates the District's commitment to financial stability and protection of its customers from significant future rate increases.

## **Pension Funding**

The District recognizes that defined benefit plans and the related future pension obligations pose significant issues for many government agencies. The District has taken a proactive approach to address the issue and, in 2013, established a Pension Benefits Trust to substantially fund its PERS unfunded liability. The Pension Benefits Trust provides the District with an additional funding option to PERS that allows for investment by a professional fund management team selected and monitored by the District. The Pension Benefits Trust holds the funding contributions for the District pending future remittance to the PERS pension trust fund which will pay all retiree benefit payments to employees

associated with the plan. Future contributions will be transferred from the Pension Benefits Trust to PERS at the District’s discretion.

Investment policy and asset allocation decisions relating to the Pension Benefits Trust are made by a Retirement Board consisting of two members from the IRWD Board of Directors and the District’s General Manager. In FY 2013, the District made an initial \$35.0 million contribution to the Pension Benefits Trust, and since then has made additional annual contributions ranging from \$1.9 million to \$12.8 million. As of June 30, 2019, the fair market value of the assets in the Pension Benefits Trust was approximately \$78.4 million. These assets are in an irrevocable trust and may only be used to pay for the pension liability.

The following schedule shows the recent history of pension plan assets and liabilities including the trust assets (in thousands):

<b>Fiscal Year</b>	<b>Total Pension Liability</b>	<b>Total Pension Assets</b>	<b>Total Pension Assets as a Percentage of the Total Pension Liability</b>
06/30/17	\$238,009	\$226,901	95.3%
06/30/18	264,399	263,819	99.8%
06/30/19	275,457	284,426	103.2%

## Cash Management Policies and Practices

The District is regulated by State law (primarily California Government Code Section 53600, et seq.) as to the types of fixed-income securities in which it can invest cash assets. In addition, the Board of Directors annually adopts an investment policy that is generally more restrictive than the State codes. The District’s standard practice is to maintain an appropriate balance between safety, liquidity and yield of investments to fund required expenditures in conformance with all applicable State laws, the District’s investment policy, and prudent cash management principles.

For FY 2018-19, the District's fixed-income investment portfolio consisted primarily of short-term securities with a portfolio average maturity of approximately 9 months. These securities included U.S. Treasury notes, U.S. government agency notes and the State-managed Local Agency Investment Fund. The average annual return on all of the District’s cash investments in FY 2018-19 was 1.82%. Including real estate investments, the weighted average rate of return was 3.96% for the same period.

At June 30, 2019, the District's cash and investments totaled approximately \$374.0 million. Cash balances are allocated to various funds including the Replacement Fund, New Capital Fund, Debt Service Fund and others.

## Real Property Investments

As a means to match its long-term responsibility to replace water and sewer facilities when they reach the end of their useful lives with long-term funding investments, the District obtained legislative authority from the State to invest a portion of its capital facilities Replacement Fund in real property located in Orange County.

As of June 30, 2019, the District owns or has an interest in six properties with an approximate market value of \$229.6 million. The District’s income-producing real estate investments have a weighted



average return (on original cost) for FY 2018-19 of 14.9%. Net revenues of \$8.4 million generated in FY 2018-19 from the District's real estate investments are retained within the Replacement Fund.

## Debt Management Policies and Practices

The District strives to minimize the cost of its long-term debt. In 1984, the District obtained State legislation that allowed for the use of variable rate debt to help achieve this goal. The Board minimizes its exposure to interest rate risk by utilizing both fixed and variable rate debt and has leveraged opportunities provided by the low interest rate environment in recent years. The District maintains a healthy balance between fixed and variable rate debt. As of June 30, 2019, the District's debt portfolio included fixed rate debt at 59.0%, synthetically fixed (hedged) variable rate debt at 14.0% and unhedged variable rate debt at 27.0%, resulting in an average all-in cost of debt of 3.57% for the fiscal year.

In FY 2016-17, the Board of Directors adopted a Debt Management Policy Statement (Debt Policy). Debt Policy objectives formalize previous District guidelines related to timing and amount of future debt issuance, allowable debt types and structures and spending requirements of bond proceeds. The Debt Policy also addresses underwriter selection and allowable methods of sale, continuing disclosure requirements, financial advisor and credit rating agency relationships and other key debt-related topics.

As of June 30, 2019, there were eight outstanding GO bond issues consisting of \$271.7 million in variable rate mode and \$278.4 million in fixed rate mode (excluding any unamortized premium or discount). As of June 30, 2019, the District also had two outstanding COPs issues with a balance of \$118.7 million in fixed rate mode. The District has secured direct pay letters of credit to enhance certain issues of its variable rate debt.

The GO bond issues are secured by the District's ability to levy ad valorem property taxes to pay debt service. Although the District has elected to use a combination of ad valorem property taxes and other legally available funds to pay debt service, the legal authority exists to fully fund GO bond debt service through such ad valorem taxes. In addition to the ad valorem tax pledge, certain GO bond issues are also secured by the net revenues of the District. The COPs issues are also secured by the net revenues of the District.

The District is required under some of its debt covenants to collect revenues sufficient to provide net revenues equal to 125% (1.25 times) of senior debt service coverage during the fiscal year. As of June 30, 2019, the District had net revenues equal to 4.8 times senior debt service coverage.

Prior to FY 2003-04, all of the District's outstanding debt was in a variable rate mode and the Board of Directors took certain actions to manage and mitigate the interest rate risk. The District's practice is to maintain a target amount of investment assets equal to at least 75% of the District's outstanding unhedged variable rate debt. In addition, in 2004 the District began an interest rate swap program under which LIBOR-based fixed payer interest rate swaps were executed to hedge a portion of the District's variable rate exposure. In June 2019, \$70 million of the District's \$130 million of outstanding fixed payer swaps matured, with the remaining \$60 million notional amount due to mature in March 2029. The outstanding interest rate swaps allow the District to limit the interest rate risk exposure on approximately \$89.5 million of its remaining tax-exempt variable rate debt to 3.81% (assuming a historical ratio for the tax-exempt SIFMA Index versus taxable 1-month LIBOR of 67%).

In FY 2010-11, the District issued \$175 million of general obligation fixed rate debt utilizing the taxable Build America Bond (BABs) program. BABs, created under the American Recovery and Reinvestment

Act, are taxable bonds with subsidy payments made by the Treasury Department to issuers equaling 35% of the interest costs. In FY 2018-19, Federal subsidy payments were cut by 6.2% under congressionally mandated sequestration. As a result of the reduced subsidy payments, the net interest rate for the District's BABs issue increased from 4.30% to 4.45%.

## **Risk Management**

The District utilizes a combination of self-insurance and third-party liability insurance to minimize loss exposures from property claims, third-party liability claims and workers compensation claims. The District self-insures the first \$25,000 per occurrence for property losses, \$100,000 per occurrence for third-party liability claims and \$125,000 per occurrence for workers compensation claims. Various control techniques used to minimize loss include, but are not limited to, regular employee safety meetings and training sessions, the use of uniform language in contracts designed to limit or prevent liability exposure, general risk assessments, and the development of emergency plans, including a business continuation plan.

The District engages an outside firm annually to evaluate the District's network security. The objective of the security assessment is to identify risks and vulnerabilities from the Internet or local wireless networks and make recommendations for remediation wherever appropriate. The assessment includes tests, scans, and surveys to identify vulnerabilities and configuration issues. In addition, the District hired an outside firm to conduct a detailed Information Security Assessment. This comprehensive review identified the District's critical data assets, potential system vulnerability risks, and overall ability of the District to respond to a cybersecurity threat or event. The annual external network security and cybersecurity assessments and ongoing staff education and awareness are just a few of the ongoing efforts by the District to safeguard information.

## **Major Initiatives**

The District's major initiatives during FY 2018-19 include continuing programs to secure water supplies, as well as expanding sewage treatment capacity and diverting sewage flows, water education programs, and the continuing implementation of the Water Use Efficiency Plan.

### **Water Supply Reliability**

#### **Groundwater Program**

One of the goals of the District's Water Resources Master Plan is to identify a reliable water supply mix which includes developing sufficient groundwater production capacity to pump IRWD's portion of the Orange County Ground Water Basin, additional local groundwater production, and to have enough capacity to meet demands during outage conditions. Currently, the District meets these goals and has the ability to produce approximately 45,000 – 50,000 acre feet per year (AFY) of potable groundwater and 4,000 – 5,000 AFY of non-potable groundwater.

#### **Water Banking**

In addition to developing its local groundwater and recycled water systems, the District is further improving its water supply reliability by developing and operating water banking facilities in Kern County, California. These projects are known as the Strand Ranch Integrated Banking Project and the Stockdale Integrated Banking Project (collectively, the IRWD Water Bank). The IRWD's Water Bank is situated on groundwater recharge lands that overlie the regional Kern County groundwater basin. The

purpose of the IRWD Water Bank is to improve the District's water supply reliability by capturing and storing low cost water available during wet hydrologic periods for use during dry periods. The IRWD Water Bank enhances the District's ability to respond to drought conditions and potential water supply interruptions and enables it to reduce the cost of water delivered under such conditions.

The District has entered into agreements for a 30-year water banking partnership with the Rosedale-Rio Bravo Water Storage District (Rosedale) in Kern County. These agreements provide for Rosedale to operate the IRWD Water Bank on behalf of the District and permits the District: (i) to store up to 76,000 acre feet of water in the aquifer; (ii) to recharge a minimum of 44,600 acre feet of water per year in the aquifer; and (iii) to recover a minimum of 28,750 acre feet of water per year from the aquifer. An additional 50,000 acre feet of leased storage will be available in the future as part of the Stockdale Integrated Banking Project.

The District has constructed groundwater recharge ponds and related facilities at its IRWD Water Bank that are necessary to divert water from an adjacent canal into the ponds. Groundwater wells have been constructed on the Strand Ranch and Stockdale West properties. The District, in partnership with Rosedale and others, has also constructed additional wells that will increase the ability to recover water from the District Water Bank during peak summer demand periods. The District has secured water from a number of sources for recharge at the IRWD Water Bank.

The District has entered into agreements with Metropolitan Water District of Southern California (MWD) which allows it to transfer water from the IRWD Water Bank into the District's service area. The District recovered and delivered approximately 1,000 acre feet from the Water Bank in FY 2015-16.

Since 2010, the District has delivered a total of approximately 70,575 acre feet of water to the IRWD Water Bank through its water supply partnerships. The District has returned its partner's share of the water and holds approximately 32,000 acre feet of water in storage for future use in IRWD's service area. The District is currently pursuing additional potential water supply opportunities for diversion into the IRWD Water Bank.

### **Kern Fan Groundwater Storage Project**

The Kern Fan Groundwater Storage Project (Kern Fan Project) will develop a regional water bank in the Kern Fan area to capture, recharge and store unallocated Article 21 water from the State Water Project (SWP) during wet hydrologic periods. The project is a joint venture between IRWD and Rosedale-Rio Bravo Water Storage District. The stored water would be extracted when needed to provide ecosystem, emergency supply and water supply benefits. IRWD's share of the Kern Fan Project would be used in conjunction with the Strand Ranch and Stockdale Integrated Banking Projects to meet IRWD's contingency storage needs at build-out. IRWD's goal for contingency storage is to secure supplies adequate to backfill the loss of imported supplies for three consecutive years. The Kern Fan Project, along with the IRWD Water Bank will allow IRWD to meet this goal.

In August 2017, IRWD and Rosedale jointly submitted a grant application to the California Water Commission (CWC) for the proposed Kern Fan Project. The application sought Proposition 1 funds available from the CWC through the Water Storage Investment Program (WSIP). In July 2018, the CWC conditionally awarded \$67.5 million to the Kern Fan Project. The District is currently pursuing additional funding opportunities.

## **Water Rights**

The District also owns property with rights to State Water Project water which can be stored in the IRWD Water Bank. The water is available as a result of the District's acquisition of property located within the Dudley Ridge Water District, including the rights to use approximately 1,750 acre feet of Table A State Water Project water allocated to Dudley Ridge. The District can store its Table A water in the IRWD Water Bank with half of the water being available for future use in the District's service area. The acquisition also includes certain participation rights in the Kern Water Bank allowing the District to store up to approximately 9,500 acre feet of water.

The District owns approximately 3,100 acres of agricultural land (PVID Properties) in Riverside County, California. IRWD's PVID Properties are located within Palo Verde Irrigation District (PVID), which has first priority rights on the Colorado River. Approximately 969 acres of the land are included in a Metropolitan Water District of Southern California (MWD) and PVID fallowing program under which MWD makes payments to landowners in exchange for letting land lie fallow. Water that is conserved through fallowing is available for use within MWD's service area (which includes the District's service area). The District has leased the PVID Properties to tenant farmers for agricultural uses.

## **Syphon Recycled Water Seasonal Storage Facility**

Syphon Reservoir, located in the northern portion of Irvine, is a sixty-year-old untreated water storage reservoir historically used for agricultural purposes. The District purchased Syphon Reservoir in January 2010, and in 2015 completed the process of converting the reservoir into a recycled water seasonal storage facility. Seasonal storage reservoirs allow the District to store excess recycled water produced in the winter months for use in higher demand summer months. This will increase water reliability by reducing the District's dependency on imported water from MWD used to supplement the recycled water system.

In 2013, the District completed a feasibility study to increase storage capacity in Syphon Reservoir from its current capacity of 450 acre feet to 5,000 acre feet. Additional storage capacity could allow the District to utilize more of the recycled water it produces. An expansion of Syphon Reservoir to 5,000 acre feet would allow for recycling 100% of the sewage flows tributary to MWRP and could reduce the District's need to supplement the recycled water system with imported water in dry years. The District is currently performing geotechnical investigations of the site and evaluating funding alternatives for the reservoir expansion.

## **Expanded Water Recycling Options, Resource Recovery and System Reliability**

The District is continuing its program to increase the reliability of the sewage system by diversifying treatment options and increasing the reliability of critical sewage collections facilities. The goals of the program are to collect sewage in the most cost effective method available, create a high quality and reliable recycled water supply for irrigation and commercial uses and minimize environmental impacts and risks. Sewage collected throughout the District is treated at three locations: The Michelson Water Recycling Plant (MWRP), the Los Alisos Water Recycling Plant (LAWRP) and at the Orange County Sanitation District (OCSD). The District owns and operates the MWRP and LAWRP, and owns capacity in the OCSD facilities.

The most recent example of expanded water recycling reliability is a major capacity expansion of the MWRP from 18 million gallons per day (mgd) to 28 mgd, completed in 2014. The two plants operated by the District currently have capacities of 28 (MWRP) and 7.5 (LAWRP) mgd, with a collective capacity of 35.5 mgd. Expanding existing infrastructure for sewage treatment has four primary benefits including:

- Increased recycled water production and utilization.
- Decreased exposure to third party treatment costs and operational constraints.
- Decreased dependencies on imported water supplies.
- Lower total cost.



**Biosolids and Energy Recovery Facilities Project**

In addition to the projects identified above, the District evaluated alternative approaches to recover the solids generated by its water recycling facilities. The evaluation of alternative approaches for handling MWRP solids, currently conveyed to Fountain Valley for treatment by OCSD, included consideration of many factors such as costs and potential community impacts.

As a result, in FY 2013-14, the District began construction of new capital facilities at the MWRP which integrates a new state-of-the-art organic handling system. The system makes efficient and sustainable use of locally generated renewable resources by creating a beneficial use of biosolids and biogases that are produced during the sewage treatment/recycling process. This project aligns with green and sustainable business practices, while at the same time creating an effective cost management of sewage/recycling services for IRWD customers.

The biosolids treatment process allows for the conversion of biogas into electricity thereby further reducing the District's dependency on its third party electricity provider. The construction of the MWRP Biosolids and Energy Recovery Facilities is completed and the facilities are anticipated to be fully operational by mid-2020 at an estimated project cost in excess of \$200 million.

## Community Education and Outreach

The District's commitment to community education and outreach recognizes the significant impact lifelong water education can have on a community. Irvine Ranch Water District sponsors community events, workshops, water efficiency programs, demonstration gardens and multi-media outreach to further enhance our mission to foster an appreciation for water and the environment.

Community water education and awareness of water use efficiency can begin at a young age. The District provides innovative water education programs to students in its service area through a unique partnership with the Discovery Science Foundation. These exceptional programs are available to all kindergarten through middle school students in any public, private or home school in the District's service area and meet all California curriculum content standards while bringing water education to life for the next generation of community leaders.



**Discovery Cube Booklets**



The District's San Joaquin Marsh Campus, which houses the IRWD Learning Center and Visitors Center, embodies the District's dedication to lifelong water education. The campus provides a wide variety of educational venues and teaching opportunities using the District's Natural Treatment System, the Butterfly Garden, and San Diego Creek. The Learning Center is a dedicated facility for water education, featuring two state-of-the-art classrooms and a patio that can be used for outdoor learning.

Throughout the year, the Learning Center houses not only the District's education programs but also its resident tours, community events, and programs run by the District's Marsh partner, Sea & Sage Audubon. The Visitors Center at the historic Irvine Ranch Marsh House provides informative self-guided tours of the District's environmental and water use efficiency efforts and is open to the public seven days a week.

Irvine Ranch Water District is active in the community as well, promoting water education through water use efficiency, water quality and recycled water workshops; resident tours, community functions, science fair participation, poster contests and educational events such as the Children's Water Festival. Customized in-class lectures for high school and college classes and educational tours for community organizations are offered throughout the year.

The District has responded to the abatement of statewide drought conditions by moving from urgency-based water efficiency outreach efforts to the development of a new water efficiency outreach program that communicates the value of water, sustains current levels of water savings, and seeks additional permanent water savings among customer groups that have been traditionally difficult to reach. The new program builds on the success of drought outreach efforts, which effectively increased awareness and participation in District conservation programs and resulted in IRWD's success in meeting its previous state-mandated drinking water conservation targets.

To support these efforts, the District continues to offer targeted workshops that teach customers about water efficient landscaping and efficient irrigation techniques. The District offers rebates on items such as high-efficiency rotating spray nozzles, rain barrels, clothes washers and toilets.

In 2019, Irvine Ranch Water District received the United States Environmental Protection Agency's WaterSense Excellence Award and the Public Relations Society of America's Silver Anvil Award for outstanding water efficiency outreach.



**Tap Water 101 Workshop**

The District maintains two water efficiency websites that offer self-guided landscape design and interactive demonstration resources as well as inspirational garden galleries and customized plant lists: *rightscapenow.com* and *rightscaperesources.com*. IRWD WaterStar and WaterStar Restaurant business recognition programs provide incentives for local companies to increase their efficiency; and the Sewer Savvy program recognizes businesses for exceptional sewer maintenance habits.

The District's demonstration gardens display a palette of more than 80 different drought-tolerant, California-native, and fire-resistant plants, along with practical information for customers to use when redesigning their home landscapes for water efficiency.

# Awards and Acknowledgments

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Irvine Ranch Water District for its comprehensive annual financial report (CAFR) for the fiscal years ended June 30, 2004 through June 30, 2018. In order to be awarded a Certificate of Achievement, IRWD was required to publish an easily readable and efficiently organized CAFR that satisfied both GAAP and applicable legal requirements.

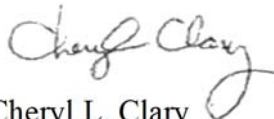
A Certificate of Achievement is valid for a period of one year. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we will be submitting it to the GFOA to determine its eligibility for another certificate.

Staff would like to acknowledge the IRWD Board of Directors for their support and for maintaining the highest standards of professionalism in the management of the District's operations and finances. We would also like to thank the dedicated employees of the District for their commitment to providing high quality service to the District's customers. The preparation of this report would not have been possible without the efficient and dedicated service of the entire Finance Department staff. We also wish to express our appreciation to all staff that assisted and contributed to the preparation of this report.

Respectfully submitted,



Paul A. Cook  
General Manager



Cheryl L. Clary  
Executive Director of Finance & Administration

**Irvine Ranch Water District**  
List of Principal Officials

**Board of Directors**

President and Director	Steven E. LaMar
Vice President and Director	Mary Aileen Matheis
Director	Douglas J. Reinhart
Director	Peer A. Swan
Director	John B. Withers

**Executive Management**

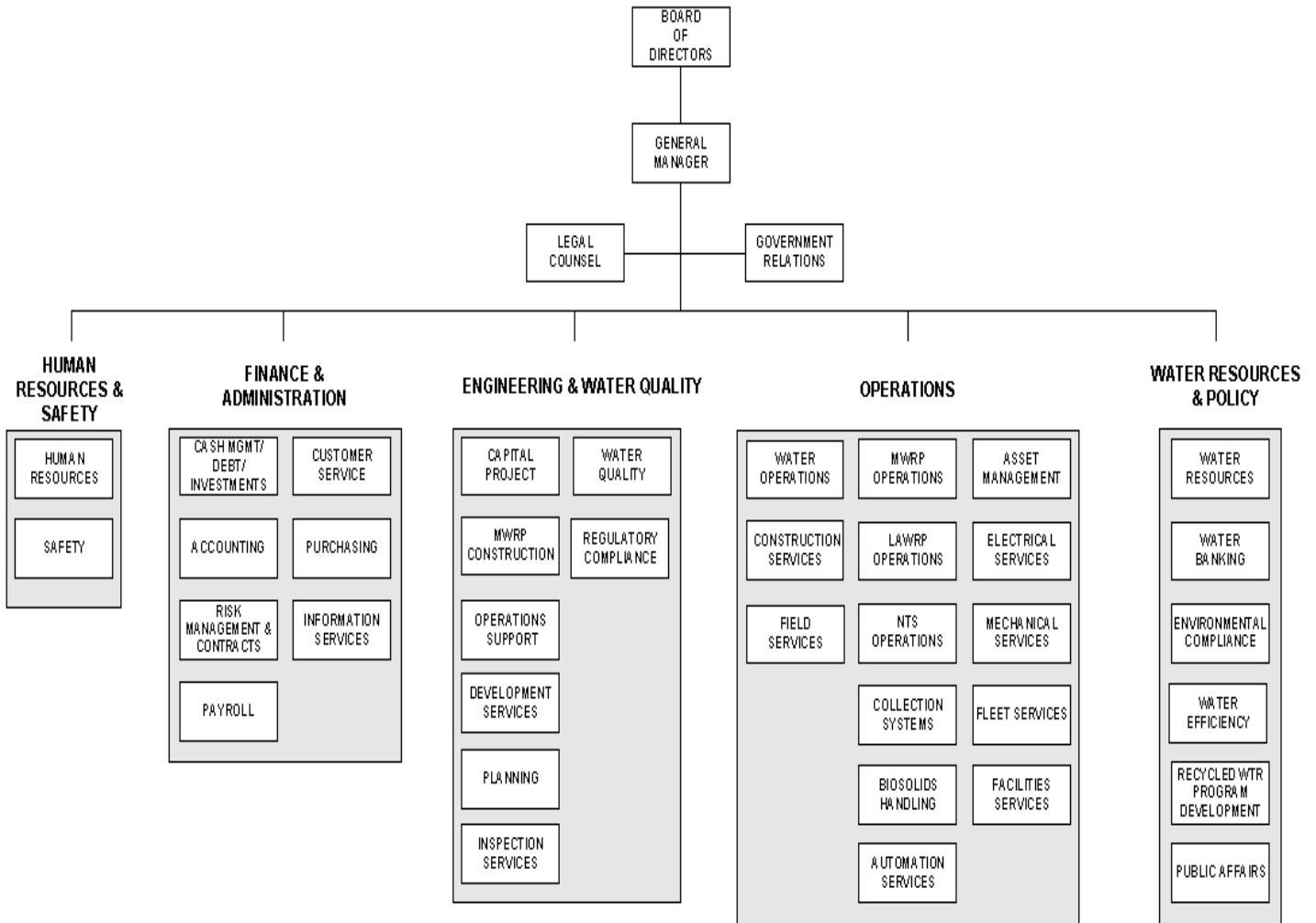
General Manager	Paul A. Cook
Executive Director of Finance & Administration	Cheryl L. Clary
Executive Director of Operations	Wendy L. Chambers
Executive Director of Engineering & Water Quality	Kevin L. Burton
Executive Director of Water Resources & Policy	Paul A. Weghorst
Director of Human Resources	Jenny L. Roney
Director of Water Resources	Fiona M. Sanchez
Director of Public Affairs	Beth M. Beeman
Director of Administrative Services	Tony J. Mossbarger
Director of Treasury and Risk Management	Robert C. Jacobson
Director of Water Operations	Thomas S. Roberts
Director of Recycling Operations	Jose Zepeda
Director of Maintenance	Richard S. Mykitta
Director of Water Quality & Regulatory Compliance	James E. Colston



# Irvine Ranch Water District

## Organizational Chart (By Function)

### Fiscal Year 2018-19





Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Irvine Ranch Water District  
California**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2018**

*Christopher P. Morrill*

Executive Director/CEO

# Financial Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2019

## **Independent Auditors' Report**

Board of Directors  
Irvine Ranch Water District  
Irvine, California

### **Report on the Financial Statements**

We have audited the accompanying financial statements of Irvine Ranch Water District (the District), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the District's financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Irvine Ranch Water District, as of June 30, 2019, and the respective change in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### **Report on Summarized Comparative Information**

We have previously audited the District's 2018 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated November 12, 2018. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2018 is consistent, in all material respects, with the audited financial statements from which it has been derived.

### **Other Matters**

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that *management's discussion and analysis, schedule of changes in net pension liability and related ratios, schedule of contributions – defined benefit pension plan, schedule of changes in the OPEB liability and related ratios, and schedule of contributions – OPEB* be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements.

The *introductory section* and the *statistical section* are presented for purposes of additional analysis and are not a required part of the basic financial statements. The *introductory section* and the *statistical section* have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Board of Directors  
Irvine Ranch Water District  
Page Three

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 12, 2019, on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

A handwritten signature in blue ink that reads "Davis Fan LLP". The signature is written in a cursive, flowing style.

Irvine, California  
November 12, 2019

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the financial performance of the Irvine Ranch Water District (District) provides an overview of the District's financial activities for the fiscal year ended June 30, 2019. This section should be read in conjunction with the basic financial statements and notes to the basic financial statements, which follow this analysis.

### **Financial Highlights:**

- Total assets and deferred outflows of resources exceed total liabilities and deferred inflows of resources by \$1,928.0 million (net position), consisting of \$1,238.8 million in net investment in capital assets, \$313.0 million restricted for water services and \$376.2 million restricted for sewer services. This is an increase of \$87.1 million or 4.7 percent over the prior fiscal year net position of \$1,840.9 million.
- Total assets are \$2,762.5 million, an increase of \$74.3 million or 2.8 percent over the prior fiscal year. This is due primarily to a \$67.9 million increase in the District's capital assets. The District added \$127.8 million in water and sewer assets during the year partially offset by an increase of \$57.4 million in accumulated depreciation.
- Total liabilities are \$871.2 million, a decrease of \$13.0 million or 1.5 percent from the prior year. Liabilities consist primarily of \$722.1 million of debt, net pension and OPEB liabilities of \$80.8 million, swap liability of \$20.7 million and accounts payable and other liabilities of \$47.6 million. The total decrease over the prior year is due primarily to \$13.0 million in principal debt payments during the fiscal year.
- The Irvine Ranch Water District Post-Employment Benefits Trust (Pension Benefits Trust) was established in June 2013 to assist in funding the District's CalPERS unfunded liability. As of June 30, 2019, the District's total pension assets (including the CalPERS and Pension Benefits Trust assets) as a percentage of the total pension liability is 103.2 percent. For more detail, see Note 13 of the Notes to the Basic Financial Statements.
- Total revenues are \$283.5 million, an increase of \$29.0 million or 11.4 percent over the prior fiscal year. Operating revenues increased by \$9.5 million or 5.9 percent over the prior year due primarily to customer growth, Board approved rate increases and an increase of \$5.2 million in water-banking revenue associated with providing storage to other water banking partners. Non-operating revenues increased \$19.5 million or 20.9 percent over the prior year due primarily to a \$9.8 million increase in the fair value of investments including trust and real estate assets, \$5.9 million of higher property tax receipts, and \$2.1 million higher interest income on the District's investments.
- Total expenses are \$245.8 million, an increase of \$7.8 million or 3.3 percent over the prior fiscal year. This is due primarily to an increase of \$7.4 million in sewer expenses, associated with heavy rainfall filling reservoirs resulting in sending higher sewage flows to the District's third party provider, a \$2.5 million increase in expensed projects partially offset by a decrease of \$3.9 million in real estate expense.
- Capital contributions are \$49.4 million, a decrease of \$11.2 million or 18.5 percent over the prior fiscal. Connection fees paid by developers were \$14.5 million lower due to a slowdown in the building industry partially offset by a \$7.3 million increase in facilities completed and donated from developers to the District.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

More detailed analysis about the overall District's financial position and operations is provided in the following sections.

### **Overview of the Financial Statements:**

The basic financial statements of the District consist of the financial statements (the Statement of Net Position, the Statement of Revenues, Expenses, and Changes in Net Position, and the Statement of Cash Flows) and notes to the basic financial statements. The basic financial statements are prepared using the accrual basis of accounting. This report also contains other supplementary information in addition to the basic financial statements.

**Statement of Net Position** depicts the District's financial position at June 30, the end of the District's fiscal year. The statement of net position shows all financial assets and liabilities of the District. Net position represents the District's residual interest after liabilities and deferred inflows of resources are deducted from assets and deferred outflows of resources. Net position is displayed in two components: net investment in capital assets and restricted for water and sewer services.

**Statement of Revenues, Expenses and Changes in Net Position** provides information on the District's operations and can be used to determine whether the District has recovered all of its costs through operating and non-operating revenues.

**Statement of Cash Flows** provides information on the District's cash receipts, cash payments and changes in cash resulting from operations, investments and financing activities.

**Notes to the Basic Financial Statements** provide additional information essential to a full understanding of the data provided in the basic financial statements.

The **Other Information** includes *required supplementary information* concerning the District's progress in funding its obligations to provide pension and other post-employment benefits to its employees.

### **Financial Analysis of the District:**

The following condensed schedules contain summary financial information extracted from the basic financial statements to assist general readers in evaluating the District's overall financial position and results of operations as described in this Management's Discussion and Analysis (MD&A). Increases or decreases in these schedules can be used as performance indicators to assess whether the District's overall financial position has improved or deteriorated. Other external factors such as changes in economic conditions, customer growth, and legislative mandates should also be considered as part of this analysis.



## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

### **Financial Position Summary:**

The Statement of Net Position reflects the District's financial position as of June 30. The statement includes assets, deferred outflow of resources, liabilities, and deferred inflows of resources. The net position represents the District's net worth including, but not limited to, capital contributions and net investment in capital assets. A condensed summary of the District's total net position at June 30 is set forth below:

<b>Table 1 - Summary of Net Position (in millions)</b>				
	<b>2019</b>	<b>2018</b>	<b>Increase/(Decrease)</b>	
			<b>Amount</b>	<b>Percentage</b>
<b>Assets</b>				
Current assets	\$ 407.5	\$ 418.3	(\$10.8)	-2.6%
Capital assets, net	1,958.7	1,890.8	67.9	3.6%
Other noncurrent assets	396.3	379.1	17.2	4.5%
<b>Total assets</b>	<b>2,762.5</b>	<b>2,688.2</b>	<b>74.3</b>	<b>2.8%</b>
<b>Deferred Outflows of Resources</b>	<b>41.2</b>	<b>41.7</b>	<b>(0.5)</b>	<b>-1.2%</b>
<b>Liabilities</b>				
Current liabilities	53.8	52.5	1.3	2.5%
Long-term liabilities	817.4	831.7	(14.3)	-1.7%
<b>Total liabilities</b>	<b>871.2</b>	<b>884.2</b>	<b>(13.0)</b>	<b>-1.5%</b>
<b>Deferred Inflows of Resources</b>	<b>4.5</b>	<b>4.8</b>	<b>(0.3)</b>	<b>-6.3%</b>
<b>Net Position</b>				
Net investment in capital assets	1,238.8	1,155.5	83.3	7.2%
Restricted for water services	313.0	289.5	23.5	8.1%
Restricted for sewer services	376.2	395.9	(19.7)	-5.0%
<b>Total net position</b>	<b>\$1,928.0</b>	<b>\$1,840.9</b>	<b>\$87.1</b>	<b>4.7%</b>

As shown in Table 1, the District's total assets increased \$74.3 million or 2.8 percent during the current fiscal year. Current assets decreased \$10.8 million. Amounts due from other agencies relating to cash deposits held by the Orange County Sanitation District (OCSD), the District's third party provider for excess sewage flows, decreased by \$18.0 million based on the agreements between the two agencies for future obligations. This is partially offset by a \$7.0 million increase in water banking inventories.

Capital assets increased \$67.9 million or 3.6 percent during the current fiscal year. The District added \$127.8 million in water and sewer assets during the year partially offset by an increase of \$57.4 million in accumulated depreciation. The largest capital spending during the year was \$26.0 million for the District's proportionate share of the OCSD's jointly funded capital sewer assets and \$14.8 million for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities project, a multiple year project with a total cost in excess of \$200 million.

Other noncurrent assets increased \$17.2 million or 4.5 percent during the current fiscal year. Noncurrent assets include the District's real estate investments and the pension benefits trust investment which was established in 2013 to help fund the District's pension liability. The fair value of real estate investments increased by \$11.3 million due primarily to \$5.9 million of spending for building construction costs for the Sand Canyon General Office building, a \$6.1 million increase in the fair value of all District real estate investments and a \$3.1 million increase in interest receivable from a loan to Lennar Homes of California, Inc. for the 2017 sale of the IRWD's Serrano Summit property located in Lake Forest. These are partially offset by a \$3.8 million distribution in one of its limited partnership investments. In addition, the market value of the District's pension benefits trust investments increased \$5.3 million during the current fiscal year.

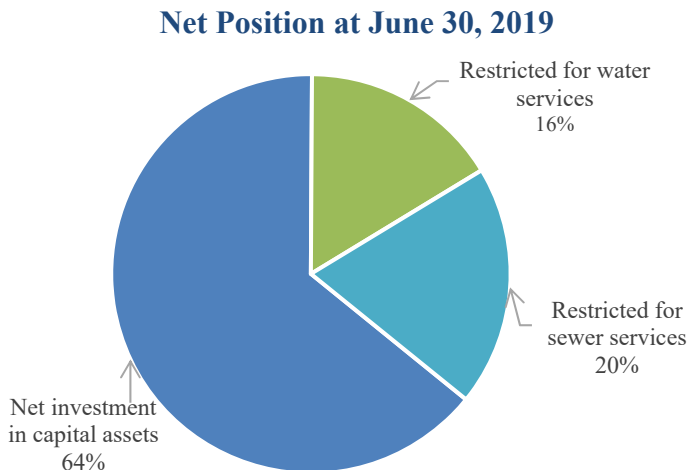
## MANAGEMENT’S DISCUSSION AND ANALYSIS (Continued)

The District’s deferred outflows of resources decreased by \$0.5 million or 1.2 percent over the prior fiscal year. This is due primarily to a \$4.0 million decrease in pension and post-employment (OPEB) actuarial related changes partially offset by a \$2.5 million increase in accumulated losses associated with the fair value of interest rate swaps, and \$1.0 million increase in pension and OPEB contributions.

The District’s total liabilities decreased \$13.0 million or 1.5 percent in the current fiscal year. This was due primarily to \$13.0 million in principal payments of the District’s general obligation bonds, certificates of participation, and notes payable during the year.

The District’s deferred inflows of resources decreased \$0.3 million or 6.3 percent in the current fiscal year. This was due primarily to \$2.1 million amortization of OPEB actuarial assumptions and experience changes. The decrease was partially offset by \$1.8 million in new OPEB actuarial assumptions and experience changes including a decrease in discount rate from 3.87 percent to 3.58 percent, demographic assumption updates, and mortality scale changes. For more details, see Note 14 of the Notes to the Basic Financial Statements.

Net position at end of the current fiscal year increased \$87.1 million or 4.7 percent in the current fiscal year. Net position consists of net investment in capital assets and restricted net positions.



Net investment in capital assets are capital assets, net of accumulated depreciation/amortization and liabilities (such as debt) attributable to the acquisition, construction, or improvement of those assets. Net investment in capital assets was \$1,238.8 million or 64.3 percent of total net position, an increase of \$83.3 million from the prior fiscal year. The change is due primarily to \$67.9 million in net capital asset additions, \$13.0 million of debt principal payments and \$2.6 million amortization of premiums in the current fiscal year.

Several major District capital projects contributed to the increase, including \$26.0 million of the District’s proportionate share of the OCSD’s jointly funded capital assets and \$14.8 million for the Michelson Water Recycling Plant Biosolids and Energy Recovery Facilities project which will reduce the District’s overall sewage treatment costs as well as provide other resource recovery benefits. These projects account for 49.0 percent of the increase in net investment in capital assets.

Restricted net position for water services was \$313.0 million or 16.2 percent of total net position. Restricted net position for sewer services was \$376.2 million or 19.5 percent of total net position. Restricted net positions are externally restricted by legislation which imposes legally enforceable requirements that District assets be used only for the specific purposes for which it was formed.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

### **Activities and Changes in Net Position:**

The Statement of Revenues, Expenses, and Changes in Net Position summarizes the District's operations during the current fiscal year. A Summary of the District's changes in net position for the fiscal years ended June 30, is included in Table 2 below:

<b>Table 2 - Revenues, Expenses and Changes in Net Position (in millions)</b>				
	2019	2018	Increase/(Decrease)	
			Amount	Percentage
<b>Operating revenues</b>				
Water sales and service charges	\$ 94.1	\$ 84.6	\$ 9.5	11.2%
Sewer sales and service charges	76.8	76.8	0.0	0.0%
<b>Total operating revenues</b>	170.9	161.4	9.5	5.9%
<b>Non-operating revenues</b>				
Property taxes	63.1	57.2	5.9	10.3%
Interest income	6.2	4.1	2.1	51.2%
Increase (decrease) in fair value of investments	5.2	(1.6)	6.8	-425.0%
Real estate income	17.8	16.7	1.1	6.6%
Increase (decrease) in fair value of real estate investments	6.1	4.1	2.0	48.8%
Pension benefits trust interest and dividends income	2.1	3.0	(0.9)	-30.0%
Increase (decrease) in fair value of pension benefits trust investments	3.2	2.2	1.0	45.5%
Other income	8.9	7.4	1.5	20.3%
<b>Total non-operating revenues</b>	112.6	93.1	19.5	20.9%
<b>Total revenues</b>	283.5	254.5	29.0	11.4%
<b>Operating expenses</b>				
Water services expenses	83.9	82.5	1.4	1.7%
Sewer services expenses	59.5	52.1	7.4	14.2%
Depreciation	64.8	63.9	0.9	1.4%
<b>Total operating expenses</b>	208.2	198.5	9.7	4.9%
<b>Non-operating expenses</b>				
Interest expense	25.5	26.0	(0.5)	-1.9%
Real estate expense	9.4	13.3	(3.9)	-29.3%
Other expense	2.7	0.2	2.5	1,250.0%
<b>Total non-operating expenses</b>	37.6	39.5	(1.9)	-4.8%
<b>Total expenses</b>	245.8	238.0	7.8	3.3%
Income/(loss) before capital contributions	37.7	16.5	21.2	128.5%
Capital contributions	49.4	60.6	(11.2)	-18.5%
Change in Net Position	87.1	77.1	10.0	13.0%
Beginning Net Position	1,840.9	1,772.0	68.9	3.9%
Prior period adjustments <sup>(1)</sup>	0.0	(8.2)	8.2	-100.0%
<b>Ending Net Position</b>	\$1,928.0	\$1,840.9	\$87.1	4.7%

<sup>(1)</sup> In 2018, the prior period adjustment relates to the implementation of the new pension implementation guide and new OPEB accounting standards.

## MANAGEMENT’S DISCUSSION AND ANALYSIS (Continued)

### **Revenues:**

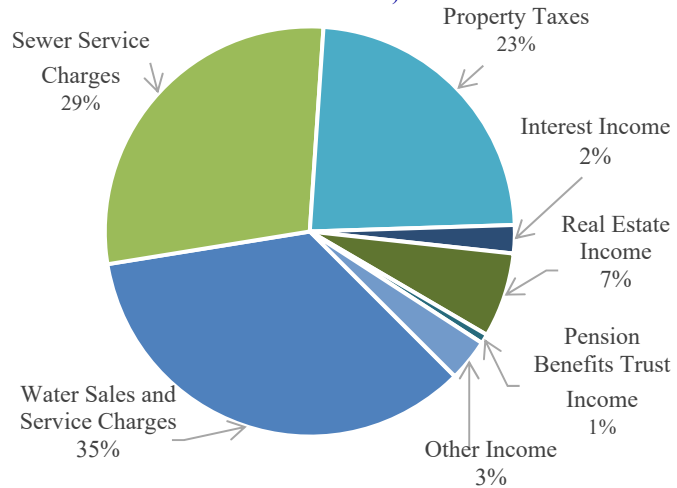
As shown in Table 2, the District’s operating revenues total \$170.9 million or 60.3 percent of total revenues. Water sales contributed \$94.1 million or 55.1 percent to total operating revenues and sewer sales contribute \$76.8 million or 44.9 percent to total operating revenues. Operating revenues increased by \$9.5 million or 5.9 percent from the prior fiscal year. The operating revenue increase is attributed to customer growth, a Board approved commodity rate increase for FY2018-19, and an increase in water banking storage revenue of \$5.4 million. The Board approved rate increase contributed \$4.7 million and customer growth within the District contributed approximately \$1.5 million to the increase. This was partially offset by a reduction in revenues of \$2.1 million due to lower sales from significant rainfall compared to the prior year. Commodity sales decreased by 7,297 acre feet from the prior year.

The chart below illustrates the sources of revenue for the fiscal year ended June 30, 2019.

Non-operating revenues total \$112.6 million and account for 39.7 percent of total revenue for the fiscal year ended June 30, 2019. This is an increase of \$19.5 million or 20.9 percent from the prior fiscal year. The increase in the current fiscal year is due to:

- An increase of \$7.8 million in the fair value of the District’s fixed income investments and Pension Benefit Trust.
- An increase of \$5.9 million in one percent and ad valorem property tax revenue associated with higher assessed values in the District’s service area.
- A net increase of \$1.2 million in the District’s investment interest income (including the Pension Benefit Trust).
- An increase of \$2.0 million in changes in the fair value of real estate investments.
- An increase of \$1.5 million in other non-operating income, primarily grant revenue.
- An increase of \$1.1 million in real estate income.

**Revenues for Fiscal Year Ended June 30, 2019**  
(excluding changes in fair value of investments, real estate investments, and pension benefits trust investments)



### **Expenses:**

As shown in Table 2, operating expenses total \$208.2 million, of which \$143.4 million relates to the cost of providing water and sewer services to the District’s customers. Water service operating costs are 89.2 percent of revenues and sewer service operating costs are 77.5 percent of revenues. Water and sewer operating expenses, excluding depreciation, increased by \$8.8 million or 6.5 percent over the prior fiscal year.

Water expenses totaled \$83.9 million, an increase of \$1.4 million or 1.7 percent primarily due to:

- An increase of \$2.2 million in direct and indirect labor for treated and untreated water treatment and systems maintenance.

## MANAGEMENT’S DISCUSSION AND ANALYSIS (Continued)

- An increase of \$1.0 million in electricity costs for the pumping of the District’s wells.
- A decrease of \$1.1 million relating to the District’s conservation programs. The District incurred more costs on various programs in the prior fiscal year.
- A decrease of \$0.7 million relating to the District’s repairs and maintenance. Maintenance expense for the domestic water system and the urban runoff system were lower than the prior fiscal year.

Sewer service expenses totaled \$59.5 million, an increase of \$7.4 million or 14.2 percent over the prior fiscal year. The increase is due primarily to:

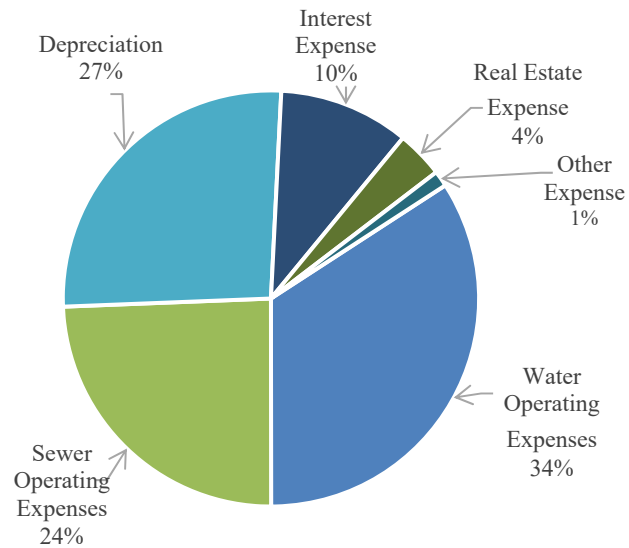
- An increase of \$4.3 million in the cost of handling, treatment, and disposal of sewage solids sent to the District’s third party provider (OCSO) due to higher flows attributable to more rainfall than the prior year.
- An increase of \$1.8 million in expensed sewer and recycled projects related to the District’s capital program.
- An increase of \$1.4 million in direct and indirect labor for sewage treatment and recycled system maintenance.
- Other net decreases of \$0.1 million.

Depreciation expense totaled \$64.8 million, an increase of \$0.9 million or 1.4 percent over the prior fiscal year. The increase is the result of the completion of several capital projects.

Non-operating expenses totaled \$37.6 million, a decrease of \$1.9 million or 4.8 percent from the prior year primarily due to:

- A decrease of \$3.9 million in real estate expense for remaining contractual development obligations related to the Serrano Summit real estate property.
- An increase of \$2.5 million other non-operating expenses associated with expensing of projects in the current fiscal year.
- A decrease of \$0.5 million in interest expense associated with a \$1.0 million reduction in net interest rate swap payments partially offset by \$0.5 million in higher interest expense on the District’s variable rate debt.

**Functional Expenses for Fiscal Year Ended  
June 30, 2019**



## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

### **Capital Contributions:**

Capital contributions totaled \$49.4 million, a decrease of \$11.2 million or 18.5 percent from the prior fiscal year. Donated facilities from developers increased \$7.3 million due to a high number of projects that were completed and donated to the District. The District also received \$18.2 million of connection fees from developers, a decrease of \$14.5 million from the prior year and \$4.0 million reduction in grants / contributions from federal, state, and local agencies compared to the prior year.

### **Capital Assets:**

The District's investment in capital assets consists of the following as of June 30:

	<b>2019</b>	<b>2018</b>	<b>Increase/(Decrease)</b>	
			<b>Amount</b>	<b>Percentage</b>
Water assets	\$1,135.1	\$1,090.3	\$44.8	4.1%
Sewer assets	1,292.9	1,209.9	83.0	6.9%
Less: accumulated depreciation	(925.6)	(868.2)	(57.4)	6.6%
Land and water rights	125.3	125.3	0.0	0.0%
Construction in progress	331.0	333.5	(2.5)	-0.7%
<b>Total</b>	<b>\$1,958.7</b>	<b>\$1,890.8</b>	<b>\$67.9</b>	<b>3.6%</b>

Capital assets, net of depreciation increased \$67.9 million or 3.6% in the current fiscal year. Construction in Progress added \$108.9 million during the current fiscal year. Total projects transferred from Construction in Progress to Capital Assets and depreciated during the fiscal year ended June 30, 2019 were \$111.5 million. The District's accumulated depreciation increased by \$57.4 million for depreciation expense in the current fiscal year. The following is a list of the top 10 capital projects expenditures which accounted for 52.7 percent of total asset additions incurred in the current fiscal year (in millions):

<b><u>Project Description</u></b>	<b><u>Amount</u></b>
OCSD CORF and Intergration Equity	\$26.0
MWRP Biosolids and Energy Recovery Facilities	14.8
Improvement District 1530 Domestic Water Program	6.7
3.7 MG Zone 1 Reservoir	4.2
ILP North Conversion Reservoir	3.8
Meter Services and Main Pipeline Replacement Program	3.4
Rosedale Drought Relief Project	2.3
Surge Tanks DWRF Wells 11 & 15	2.3
Meter Replacement Domestic Water Program	2.0
Lake Forest Zone B Reservoir Floating Cover	1.9
<b>Total</b>	<b><u>\$67.4</u></b>

Additional information on the District's capital assets can be found in Note 5 of the Notes to the Basic Financial Statements.

## MANAGEMENT’S DISCUSSION AND ANALYSIS (Continued)

### **Debt Administration:**

As shown below in Table 4, as of June 30, 2019, the District had total debt outstanding of \$722.1 million, a decrease of \$15.6 million or 2.1 percent from the prior fiscal year.

	<b>2019</b>	<b>2018</b>	<b>Increase/(Decrease)</b>	
			<b>Amount</b>	<b>Percentage</b>
General obligation bonds	\$574.7	\$586.5	(\$11.8)	- 2.0%
Certificates of participation	146.7	150.3	(3.6)	- 2.4%
Notes payable	0.7	0.9	(0.2)	-22.2%
<b>Total</b>	<b>\$722.1</b>	<b>\$737.7</b>	<b>(\$15.6)</b>	<b>- 2.1%</b>

During the current fiscal year, the decreases in the District’s total debt were primarily due to \$13.0 million in debt payments and \$2.6 million of premium amortization. The District’s rated debt obligations have received the following ratings from the three major rating agencies:

Fitch Ratings:	AAA
Moody’s:	Aa1
Standard and Poor’s:	AAA

Additional information on the District’s long-term debt can be found in Note 9 of the Notes to the Basic Financial Statements.

### **Contacting the District’s Financial Management:**

This financial report is designed to provide our citizens, taxpayers, customers, investors and creditors with a general review of the District’s finances and to show the District’s accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Executive Director of Finance and Administration at the Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, California 92618-7500.



**Irvine Ranch Water District**  
**Statement of Net Position**  
June 30, 2019  
(with comparative data as of June 30, 2018)  
(in thousands)

	2019	2018
<b>ASSETS</b>		
Current Assets:		
Cash and Investments (note 2)	\$ 374,003	\$ 373,191
Receivables:		
Customer accounts receivable	9,838	8,635
Interest receivable	1,717	1,058
Notes receivable, current portion	69	15
Due from other agencies (note 8)		18,048
Other receivables	5,226	7,532
<b>Total receivables</b>	16,850	35,288
Other Current Assets:		
Inventories (note 4)	16,166	7,836
Prepaid items and deposits	526	2,024
Total other current assets	16,692	9,860
<b>Total current assets</b>	407,545	418,339
Noncurrent Assets:		
Capital Assets (note 5):		
Water assets	1,135,101	1,090,254
Sewer assets	1,292,861	1,209,876
<b>Subtotal</b>	2,427,962	2,300,130
Less accumulated depreciation	(925,571)	(868,178)
<b>Total capital assets being depreciated, net</b>	1,502,391	1,431,952
Land and water rights	125,316	125,316
Construction in progress	330,957	333,490
<b>Total capital assets, net</b>	1,958,664	1,890,758
Other Noncurrent Assets:		
Notes receivable, net of current portion	622	58
Real estate investments (note 7)	317,296	305,980
Pension benefits trust investments (notes 2 & 13)	78,389	73,106
<b>Total other noncurrent assets</b>	396,307	379,144
Total noncurrent assets	2,354,971	2,269,902
<b>TOTAL ASSETS</b>	2,762,516	2,688,241
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred refunding charges	2,266	2,422
Accumulated decrease in fair value of swap agreements (note 3)	20,655	18,107
Pension contributions (note 13)	7,184	6,173
Pension actuarial changes (note 13)	8,792	14,331
OPEB contributions (note 14)	721	670
OPEB actuarial changes (note 14)	1,575	
<b>TOTAL DEFERRED OUTFLOWS OF RESOURCES</b>	41,193	41,703

See accompanying notes to the basic financial statements.



**Irvine Ranch Water District**  
**Statement of Net Position**  
**June 30, 2019**  
(with comparative data as of June 30, 2018)  
(in thousands)  
(Continued)

	2019	2018
<b>LIABILITIES</b>		
Current Liabilities:		
Account payable and accrued expenses	24,537	23,460
Customer deposits and advance payments	3,607	3,433
Accrued interest:		
General obligation bonds	3,943	3,909
Other accrued interest payable	2,556	2,856
Current portion of long-term liabilities:		
General obligation bonds (note 9)	12,024	11,824
Certificates of participation (note 9)	3,716	3,531
Notes payable (note 9)	265	263
Other long term liabilities (note 9)	2,070	2,180
Unearned revenue (note 10)	565	565
Claims liability (note 17)	570	448
<b>Total current liabilities</b>	53,853	52,469
Long-Term Liabilities:		
General obligation bonds, net of current portion (note 9)	562,645	574,669
Certificates of participation, net of current portion (note 9)	143,028	146,744
Notes payable, net of current portion (note 9)	419	684
Other long-term liabilities (note 9)	3,491	3,366
Unearned revenue, net of current portion (note 10)	5,392	5,957
Claims liability, net of current portion (note 17)	947	946
Net pension liability (note 13)	64,137	66,681
OPEB liability (note 14)	16,672	14,578
Swap liability (note 3)	20,654	18,106
<b>Total long-term liabilities</b>	817,385	831,731
<b>TOTAL LIABILITIES</b>	871,238	884,200
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Pension actuarial changes (note 13)	3,273	3,584
OPEB actuarial changes (note 14)	1,196	1,207
<b>TOTAL DEFERRED INFLOWS OF RESOURCES</b>	4,469	4,791
<b>NET POSITION</b> (note 12)		
Net investment in capital assets	1,238,834	1,155,465
Restricted for water services	312,955	289,540
Restricted for sewer services	376,213	395,948
<b>TOTAL NET POSITION</b>	\$ 1,928,002	\$ 1,840,953

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
**Statement of Revenues, Expenses and Changes in Net Position**  
**For the Fiscal Year Ended June 30, 2019**  
(with comparative data for the Fiscal Year Ended June 30, 2018)  
(in thousands)

	<u>2019</u>	<u>2018</u>
<b>OPERATING REVENUES</b>		
Water sales and service charges	\$ 94,107	\$ 84,575
Sewer sales and service charges	76,841	76,789
<b>Total operating revenues</b>	<u>170,948</u>	<u>161,364</u>
<b>OPERATING EXPENSES</b>		
Water:		
Water services	64,004	63,671
General and administrative	19,860	18,825
Sewer:		
Sewer services	43,734	38,115
General and administrative	15,786	14,061
Depreciation	64,835	63,877
Total operating expenses	<u>208,219</u>	<u>198,549</u>
<b>Operating income (loss)</b>	<u>(37,271)</u>	<u>(37,185)</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>		
Property taxes	63,057	57,247
Interest income	6,199	4,133
Increase (decrease) in fair value of investments	5,188	(1,571)
Real estate income (note 7)	17,813	16,689
Increase (decrease) in fair value of real estate investments (note 7)	6,095	4,091
Pension benefits trust interest and dividends income	2,140	3,003
Increase (decrease) in fair value of pension benefits trust investments	3,196	2,173
Other income	8,876	7,504
Interest expense	(25,481)	(26,034)
Real estate expense (note 7)	(9,441)	(13,284)
Pension benefits trust expense	(53)	(51)
Other expenses	(2,615)	(174)
<b>Total nonoperating revenues (expenses)</b>	<u>74,974</u>	<u>53,726</u>
<b>Income (loss) before capital contributions</b>	<u>37,703</u>	<u>16,541</u>
<b>CAPITAL CONTRIBUTIONS</b>		
Donated facilities	28,867	21,593
Connection fees	18,205	32,674
Other	2,274	6,321
<b>Total capital contributions</b>	<u>49,346</u>	<u>60,588</u>
Increase (decrease) in net position	87,049	77,129
<b>NET POSITION AT BEGINNING OF YEAR</b>	1,840,953	1,772,014
Prior period adjustments	0	(8,190)
<b>NET POSITION AT END OF YEAR</b>	<u>\$ 1,928,002</u>	<u>\$ 1,840,953</u>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
**Statement of Cash Flows**  
**For the Fiscal Year ended June 30, 2019**  
(with comparative data for the Fiscal Year Ended June 30, 2018)  
(in thousands)

	2019	2018
<b>Cash flows from operating activities:</b>		
Cash received from customers and users	\$171,660	\$142,432
Cash paid to suppliers of goods and services	(61,214)	(86,669)
Cash paid for employees services	(58,725)	(53,966)
Net cash provided by (used for) operating activities	51,721	1,797
<b>Cash flows from noncapital financing activities:</b>		
Property tax receipts	63,057	57,247
Net cash provided by noncapital financing	63,057	57,247
<b>Cash flows from capital and related financing activities:</b>		
Acquisition and construction of capital assets	(111,986)	(84,760)
Principal payments on long-term liabilities	(13,370)	(22,480)
Interest and fiscal agent costs on long term liabilities	(28,251)	(28,722)
Developer connection fees and related receipts	20,479	38,995
Net cash provided by (used for) capital and related financing activities	(133,128)	(96,967)
<b>Cash flows from investing activities:</b>		
Investment earnings	7,627	6,867
Investment earnings in real estate	9,052	53,842
Proceeds from sale or maturity of investments	182,756	78,901
Purchases of investments	(168,638)	(130,102)
Issuance of notes receivable	(633)	0
Collections on notes receivable	15	11
Net cash provided by (used for) investing activities	30,179	9,519
Net increase (decrease) in cash and cash equivalents	11,829	(28,404)
Cash and cash equivalents at beginning of year	41,977	70,381
<b>Cash and cash equivalents at end of year</b>	<b>\$ 53,806</b>	<b>\$ 41,977</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
**Statement of Cash Flows**  
**For the Fiscal Year ended June 30, 2019**  
(with comparative data for the Fiscal Year Ended June 30, 2018)  
(in thousands)  
(Continued)

	2019	2018
Reconciliation of cash and cash equivalents to amounts reported on the Statement of Net Assets:		
Cash and investments	\$374,003	\$373,191
Pension benefits trust investments	78,389	73,106
<b>Subtotal</b>	452,392	446,297
Less long-term investments	(398,586)	(404,320)
<b>Cash and cash equivalents at end of year</b>	<b>\$ 53,806</b>	<b>\$ 41,977</b>
Reconciliation of operating income to net cash provided by (used for) operating activities:		
Operating income (loss)	(37,271)	(37,185)
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:		
Other nonoperating income	8,876	7,504
Other nonoperating expenses	(2,615)	(174)
(Gain) loss on disposition of capital assets	2,211	1,281
Depreciation and amortization	64,835	63,877
(Increase) decrease in customer receivables	(1,203)	(175)
(Increase) decrease in installment sale receivable	0	0
(Increase) decrease in other receivables	2,306	(463)
(Increase) decrease in inventories	(8,330)	(750)
(Increase) decrease due from other agencies	18,048	(18,048)
(Increase) decrease in prepaid expenses and other assets	1,498	(824)
(Increase) decrease in deferred outflows	2,902	11,070
Increase (decrease) in accounts payable and accrued expenses	1,077	(16,829)
Increase (decrease) in customer deposits and advance payments	174	319
Increase (decrease) in compensated absences	427	210
Increase (decrease) in claims payable	123	(32)
Increase (decrease) in unearned revenue	(565)	(565)
Increase (decrease) in net OPEB liability	2,094	(808)
Increase (decrease) in net pension liability	(2,544)	(7,760)
Increase (decrease) in deferred inflows	(322)	1,149
<b>Net cash provided by (used for) operating activities</b>	<b>\$ 51,721</b>	<b>\$ 1,797</b>
Noncash investing, capital and financing activities:		
Contributions of capital assets from developers	\$ 28,867	\$ 21,593
Note receivable from sale of real estate	0	81,600
<b>Total noncash investing, capital and financing activities</b>	<b>\$ 28,867</b>	<b>\$103,193</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019

**(1) Summary of Significant Accounting Policies**

**(a) Reporting Entity**

The Irvine Ranch Water District (District) was formed in 1961 as a special district under Division 13 of the California Water Code (the Act). The District provides potable and recycled water service as well as sewage collection, treatment, and disposal to users within its boundaries.

The District is divided geographically into eight water and ten sewer improvement districts (IDs), as well as several planning areas (PAs) that function as informal improvement districts. Each improvement district is a sub-fund of the District and their primary purpose is to allocate costs and funding on an equitable basis for the construction of water, sewer, and recycled water infrastructure. Most improvement districts have authority to issue general obligation bonds to finance the construction of capital facilities that were identified and valued in a Plan of Works specific to the improvement district. Each improvement district with authority to issue general obligation bonds also has the authority to levy and collect connection fees and ad valorem taxes on the land within its legal boundaries sufficient to meet its general obligation bond indebtedness.

Connection fees which are paid by developers and property taxes which are paid by property owners vary by improvement district based upon, among other considerations, total capital costs, ratio of developed to undeveloped land, and development densities; however, water and sewer user fees are uniform throughout the District.

**Description of the Reporting Entity**

The financial statements of the District include the financial activities of the following sub-fund improvement districts and planning areas:

111/222	Area Excluded from IDs
112/212	Former El Toro Marine Base
113/213	Former Tustin Marine Base
125/225	Developed/Underlay
240	Newport Coast/Newport Ridge
252	Santiago Hills
153/253	Irvine Business District /Spectrum /Shady Canyon/Laguna Laurel/East Orange
154	Santiago Canyon(s)
256	Orange Park Acres
185/285	Los Alisos Area
188/288	Portola Hills Commercial
110/210	Overall District Boundary

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(a) **Reporting Entity (Continued)**

**Blended Component Units** - Blended component units although legally separate entities, are, in substance, part of the District's operations since they have the same governing board. The District has both financial accountability and operational responsibility for the blended component units. The District has the following blended component units:

**The Irvine Ranch Water District Water Service Corporation** – In January 1997, the District formed a 501(c)(4) corporation for the purpose of financing and acquiring water, sewer and other public improvements. The Corporation was created to effect the merger of the Santa Ana Heights Water Company and the issuance of the 2002 Certificates of Participation, 2008 Refunding Certificates of Participation, 2010 Refunding Certificates of Participation, and 2016 Certificates of Participation. The Corporation's bylaws mandate that the members of the District's Board of Directors shall constitute the Corporation's five-member Board of Directors. The Irvine Ranch Water District Water Service Corporation does not issue separate financial statements.

**Bardeen Partners, Inc.** – In March 1991, the District formed a 501(c)(4) corporation for the purpose of accounting for the financial data and transactions for certain District real estate investments, including the investments in Wood Canyon Villas, Sycamore Canyon Apartments, and Irvine Technology Center. Bardeen Partners is governed by a Board of Directors consisting of the five members of the District's Board of Directors. Bardeen Partners does not issue separate financial statements.

(b) **Basic Financial Statements**

The basic financial statements are comprised of the Statement of Net Position, the Statement of Revenues, Expenses and Changes in Net Position, the Statement of Cash Flows, and the Notes to the Basic Financial Statements.

(c) **Measurement Focus, Basis of Accounting and Financial Statement Presentation**

The District's financial activities are accounted for as an enterprise fund (proprietary fund type). A fund is an accounting entity with a self-balancing set of accounts established to record the financial position and results of operations of a specific governmental activity.

The activities of enterprise funds closely resemble those of ongoing businesses in which the purpose is to conserve and add to basic resources while meeting operating expenses from current revenues. Enterprise funds account for operations that provide services on a continuous basis and are substantially financed by revenues derived from user charges. The enterprise fund utilizes the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized as they are incurred. Internal activity has been eliminated in the accompanying basic financial statements.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(c) **Measurement Focus, Basis of Accounting and Financial Statement Presentation (Continued)**

The District distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with water and sewer operations. The principal operating revenues of the District are charges to customers for sales and services. Operating expenses include cost of sales and services, general and administrative expenses and depreciation of capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Capital contributions consist of contributed capital assets, connection fees, grants and other charges that are legally restricted for capital expenditures by state law or by the Board action that established those charges.

Net position of the District is classified into two components: (1) net investment in capital assets and (2) restricted net position. These classifications are defined as follows:

**Net Investment in capital assets** – This component of net position consists of capital assets, net of accumulated depreciation reduced by the outstanding balances of notes or borrowing(s) that are attributable to the acquisition of the asset, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets.

**Restricted net position** – This component of net position consists of constraints placed on net position use through external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.

When both restricted and unrestricted resources are available for use, the District uses unrestricted resources first, and then restricted resources as they are needed. For capital expenditures, legally available restricted bond proceeds are used first, then other restricted resources, and then unrestricted resources are used if needed.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(d) **Property Taxes**

The District is authorized under the Act to levy taxes on all taxable property (lands only) within its boundaries for the purposes of paying certain of its debt obligations, subject to certain limitations in the Act, the Revenue and Taxation Code and the California Constitution. The District also receives a portion of the County's 1% ad valorem property taxes from certain lands within its boundaries. Property tax revenue is recognized in the fiscal year in which the taxes are levied.

The property tax calendar is as follows:

Lien date:	January 1
Levy date:	July 1
Due date:	First installment – November 1 Second installment – February 1
Delinquent date:	First installment – December 10 Second installment – April 10

The assessment, levy and collection of property taxes are the responsibility of the County of Orange, and are remitted to the District periodically.

(e) **Cash and Cash Equivalents**

For the purposes of the statement of cash flows, cash equivalents are defined as short-term, highly liquid investments that are both readily convertible to known amounts of cash or so near to their maturity that they present insignificant risk of changes in value because of changes in interest rates, and have an original maturity date of 3 months or less.

(f) **District Investments**

Investments are reported in the accompanying Statement of Net Position at fair value, except for certain investment contracts that are reported at cost because they are not transferable and they have terms not affected by changes in market interest rates.

Changes in fair value that occur during the fiscal year are recognized as increase (decrease) in fair value of investments reported for that fiscal year. Interest income includes interest earnings on the District's investments.

(g) **Pension Benefits Trust Investments**

Investments of the Pension Benefits Trust are reported in the accompanying Statement of Net Position at fair value.

Changes in fair value that occur during the fiscal year are recognized as increase (decrease) in fair value of investments reported for that fiscal year. Interest income is recorded on the accrual basis. Dividends are recorded on the payment date.



**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(h) **Real Estate Investments**

Real estate investments consist of a wholly-owned apartment complex, three commercial office properties and one entitled land property. The District is also a party to a real estate limited partnership in which the District has more than a 50% ownership interest but does not exercise control. All real estate investments are reported at fair value. Changes in fair value that occur during the fiscal year are recognized as increase (decrease) in fair value of real estate investments reported for that fiscal year.

(i) **Fair Value Measurements**

Certain assets and liabilities are required to be reported at fair value. The fair value framework provides a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value.

The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of fair value hierarchy are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly and fair value is determined through the use of models or other valuation methodologies including:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in markets that are inactive;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement. These unobservable inputs reflect the District's own assumptions about the inputs market participants would use in pricing the asset or liability (including assumptions about risk). These unobservable inputs are developed based on the best information available in the circumstances and may include the District's own data.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(1) Summary of Significant Accounting Policies (Continued)**

**(j) Inventory and Prepaid Items**

Water inventory related to water stored in its banking facilities in Kern County is stated at its purchase cost or at a rate equivalent to what the District would charge for storage. The District's warehouse materials and supplies are valued using the average cost method. Inventory is recorded when purchased, and expensed at the time the inventory is consumed. Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items.

**(k) Capital Assets and Depreciation**

Capital assets are valued at cost where historical records are available and at an estimated historical cost where no historical records exist. Donated assets are valued at their estimated acquisition value on the date received. The District capitalizes all assets with a historical cost of at least \$2,500 and a useful life of at least three years. The cost of normal maintenance and repairs that do not add to the value of the assets or materially extend asset lives are not capitalized.

Depreciation is computed utilizing the straight-line method over the following estimated useful lives:

Buildings and Structures	3 to 100 years
Transmissions and Distributions	10 to 75 years
Machinery and Equipment	3 to 50 years

**(l) Compensated Absences**

The District's policy permits employees to accumulate earned but unused vacation and sick leave benefits up to certain limits. Earned vacations pay to a maximum of 400 hours (or more with written approval of the General Manager). Sick leave hours accrue at the rate of one day per month and employees may elect to receive cash for accumulated sick leave for up to 96 hours in excess of the first 80 hours accumulated. Fifty percent of accumulated sick leave up to a maximum of 960 hours may be paid upon termination of employment. All accumulated vacation and vested sick leave pay is recorded as expense at the time the benefit is earned.

**(m) Pensions**

For purposes of measuring the net pension liability, deferred outflows and inflows of resources relating to pensions and pension expense, information about the fiduciary net position of the District's California Public Employees' Retirement System (CalPERS) plan (Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by CalPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(m) **Pensions (Continued)**

GASB requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD)	June 30, 2017
Measurement Date (MD)	June 30, 2018
Measurement Period (MP)	July 1, 2017 to June 30, 2018

(n) **Other Post-Employment Benefits (OPEB)**

The OPEB liability, deferred outflows and inflows of resources relating to OPEB and OPEB expense have been determined by an independent actuary. Benefit payments are recognized when currently due and payable in accordance with the benefit terms.

GASB requires that the reported results pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD)	June 30, 2018
Measurement Date (MD)	June 30, 2018
Measurement Period (MP)	July 1, 2017 to June 30, 2018

(o) **Deferred Outflows/Inflows of Resources**

In addition to assets, the Statement of Net Position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The District has the following items that qualify for reporting in this category:

- Deferred refunding charges
- Accumulated decrease in fair value of swap agreements
- Employer contributions subsequent to measurement date for pension and OPEB
- Deferred actuarial amounts related to pension and OPEB

In addition to liabilities, the Statement of Net Position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The District has the following items that qualify for reporting in this category:

- Deferred actuarial amounts related to pension and OPEB

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(p) **Use of Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

(q) **Comparative Financial Statements and Reclassifications**

The information included in the accompanying financial statements for the prior year has been presented for comparison purposes only and does not represent a complete presentation in accordance with generally accepted accounting principles. Certain amounts presented in the prior year financial statements have been reclassified in order to be consistent with the current year's presentation.

(2) **Cash and Investments**

Cash and investments as of June 30, 2019 are classified in the accompanying financial statements as follows (in thousands):

District Cash and Investments	\$374,003
Pension Benefits Trust Investments	<u>78,389</u>
<b>Total Cash and Investments</b>	<b><u>\$452,392</u></b>

Cash and investments as of June 30, 2019 consist of the following (in thousands):

**District Cash and Investments:**

Cash on hand	\$ 3
Deposits with financial institutions	(1,090)
Investments	<u>375,090</u>
<b>Total District Cash and Investments</b>	<b><u>\$374,003</u></b>

**Pension Benefits Trust Cash and Investments**

Equities - mutual funds	\$ 52,780
Fixed income bonds - mutual funds	25,590
Money market - mutual funds	<u>19</u>
<b>Total Pension Benefits Trust Cash and Investments</b>	<b><u>78,389</u></b>
<b>Total Cash and Investments</b>	<b><u>\$452,392</u></b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(2) **Cash and Investments (Continued)**

The following table identifies the investment types that are authorized for the District by the California Government Code, the California Water Code, and the District's investment policy, whichever is most restrictive. The table also identifies certain provisions that address interest rate risk and concentration of credit risk.

<b>Authorized Investment Type</b>	<b>Maximum Maturity<sup>(1)</sup></b>	<b>Maximum Percentage of Portfolio</b>	<b>Maximum Investment in One Issuer</b>
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
U.S. Agency Securities	5 years	None	None
Bankers Acceptances	180 days	40%	30%
Commercial Paper	270 days	25%	10%
Negotiable Certificates of Deposit	5 years	30%	None
Repurchase Agreements	1 year	None	None
Reverse Repurchase Agreements	92 days	20% of base value	None
Medium-Term Notes	5 years	30%	None
Money Market Mutual Funds	N/A	20%	10%
Mortgage Pass-Through Securities	5 years	20%	None
Orange County Treasury Pool	N/A	None	None
Local Agency Investment Fund (LAIF)	N/A	None	None
Real Estate Investments	N/A	30% <sup>(2)</sup>	None

<sup>(1)</sup> Maximum maturity unless express authority has been granted otherwise by the Board of Directors pursuant to the California Government Code Section 53601.

<sup>(2)</sup> 30% of Replacement Fund, as authorized by the California Water Code.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(2) **Cash and Investments (Continued)**

**Pension Benefits Trust (The Trust) Authorized Investment Strategy**

The District recognizes that defined benefit plans and the related future pension obligations pose significant issues for many government agencies. The District has taken a proactive approach to address the issue and in 2013, established a Pension Benefits Trust to substantially fund its PERS unfunded liability. The Trust's investment policy authorizes investment of Trust assets in financial instruments in three broad categories: equity, fixed income, and real estate. These financial instruments can include, but are not limited to, corporate bonds, commercial paper, U.S. government securities, common and preferred stock, real estate investment trusts, and mutual funds. Investments may include derivatives, options and futures as portfolio protection strategies. The following is a summary of the Trust's investment policy.

The Trust is governed by a Retirement Board (the Board) which consists of two IRWD Board members and the General Manager. The Board designates one or more investment advisors to manage the assets under their supervision subject to the laws of the State of California and Investment Guidelines established by the Board. The long-term asset allocation policy including the minimum-maximum asset allocation range for each asset class is as follows:

<b>Asset Classes</b>	<b>Minimum</b>	<b>Maximum</b>
Cash	0%	30%
Public Equity: Domestic & International	30%	80%
Private Equity	0%	5%
Fixed Income	10%	40%
Real Estate	0%	10%

The asset allocation policy will be pursued by the Trust on a long-term basis and may be revised if necessary due to market conditions. The Board will monitor the current asset allocation policy against the long-term allocation and rebalance as it deems necessary.

Cash equivalent reserves shall consist of cash instruments having a quality rating of A-1, P-1 or higher, as established by Moody's or Standard & Poor's. Bankers' acceptances, certificates of deposit and savings accounts must be made of United States banks or financial institutions or United States branches of foreign banks, which are federally insured with unrestricted capital of at least \$50 million. Short-term corporate obligations must be rated A or better by Moody's or by Standard & Poor's.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(2) **Cash and Investments (Continued)**

**Pension Benefits Trust Authorized Investment Strategy (Continued)**

Equity investments are restricted to high quality, readily marketable securities of corporations that are actively traded on a major exchange. Not more than 5% of the total stock portfolio valued at market may be invested in the common stock of any one corporation. Ownership of the shares of one company shall not exceed 2% of those outstanding. Not more than 25% of stock valued at market may be held in any one industry category. The overall non-U.S. equity allocation should include a diverse global mix of at least 10 countries. The emerging markets exposure as defined by Morgan Stanley Capital International Inc. should be limited to 35% of the non-U.S. portion of the portfolio.

Fixed income securities of any one issuer shall not exceed 5% of the total bond portfolio, at time of purchase. The 5% limitation does not apply to issues of the U.S. Treasury or other Federal Agencies. The overall rating of the fixed income assets shall be at least "A", according to one of the three rating agencies (Fitch, Moody's or Standard & Poor's). In cases where the yield spread adequately compensates for additional risk, securities where two of the three rating agencies (Fitch, Moody's or Standard & Poor's) have assigned ratings of Baa3 or BBB- ratings, can be purchased up to a maximum of 20% of total market value of fixed income securities.

**Custodial Credit Risk**

Custodial credit risk for *deposits* is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for *investments* is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The California Government Code requires that a financial institution secure deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure public agency deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(2) **Cash and Investments (Continued)**

**Disclosures Relating to Interest Rate Risk**

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that the District manages its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming near to maturity as necessary to provide the cash flow and liquidity needed for District operations.

Information about the sensitivity of the fair values of the District's and Pension Benefits Trust's investments to market interest rate fluctuations is provided by the following table that shows the distribution of the investments by maturity (in thousands):

Investment Type	Amount	Remaining Maturity			
		12 Months Or Less	13 to 36 Months	37 Months Or More	Not Applicable
Federal Agency Securities	\$270,462	\$169,674	\$100,788	\$ 0	\$ 0
US Treasury Note	50,035	19,965	30,070	0	0
Local Agency Investment Fund	54,593	54,593	0	0	0
<b>Total District Investments</b>	<b>375,090</b>	<b>244,232</b>	<b>130,858</b>	<b>0</b>	<b>0</b>
Mutual Funds - Equities	52,781	0	0	0	52,781
Mutual Funds - Fixed Income Bonds	25,589	919	2,779	21,891	0
Mutual Funds - Money Market	19	19	0	0	0
<b>Total Pension Benefits Trust Investments</b>	<b>78,389</b>	<b>938</b>	<b>2,779</b>	<b>21,891</b>	<b>52,781</b>
<b>Total</b>	<b>\$453,479</b>	<b>\$245,170</b>	<b>\$133,637</b>	<b>\$21,891</b>	<b>\$52,781</b>



**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(2) **Cash and Investments (Continued)**

**Disclosures Relating to Credit Risk**

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the actual rating as of year-end for each investment type (in thousands):

**District Cash and Investments:**

<u>Investment Type</u>	<u>Amount</u>	<u>Rating as of 6/30/19</u>		
		<u>AAA</u>	<u>Between AA- and AA+</u>	<u>Not Rated</u>
Federal Agency Securities	\$270,462	\$10,555	\$215,108	\$44,799
US Treasury Note	50,035	19,965	30,070	0
Local Agency Investment Fund	54,593	0	0	54,593
<b>Total</b>	<b>\$375,090</b>	<b>\$30,520</b>	<b>\$245,178</b>	<b>\$99,392</b>

**Pension Benefits Trust Investments:**

<u>Investment Type</u>	<u>Amount</u>
Mutual Funds - Equities	\$52,780 <sup>(1)</sup>
Mutual Funds - Fixed Income Bonds	25,590 <sup>(2)</sup>
Mutual Funds - Money Market	19 <sup>(3)</sup>
<b>Total</b>	<b>\$78,389</b>

<sup>(1)</sup> Equity Mutual Funds as of 6/30/2019 include four "index funds" and are each comprised of diversified portfolios of equity securities. Credit ratings are not provided for Equity Mutual Funds.

<sup>(2)</sup> Fixed Income Mutual Funds are comprised of four diversified portfolios of fixed income securities. As of 6/30/2019, 58.36% of the holdings were rated A-AAA, 38.56% of the holdings were rated B-BBB, and 3.08% of the holdings were rated below B or Not Rated.

<sup>(3)</sup> The Money Market Mutual Fund is not rated.

The District is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. The fair value of the District's investment in this pool is reported in the accompanying financial statements at amounts based upon the District's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(2) **Cash and Investments (Continued)**

**Concentration of Credit Risk**

The investment policy of the District contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total District investments are as follows (in thousands):

<u>Issuer</u>	<u>Investment Type</u>	<u>Amount</u>
FHLB	Federal Agency Securities	\$ 90,092
FNMA	Federal Agency Securities	75,365
FFCB	Federal Agency Securities	75,016
FHLMC	Federal Agency Securities	29,989
<b>Total</b>		<u><u>\$270,462</u></u>

**Disclosures Relating to Fair Value Measurements**

The District categorizes its fair value investments within the fair value hierarchy established by generally accepted accounting principles. The District has the following fair value measurements as of June 30, 2019 (in thousands):

**District Cash and Investments:**

<u>Investment Type</u>	<u>Amount</u>	<u>Fair Value Measurements</u>	
		<u>Level 1</u>	<u>Level 2</u>
Federal Agency Securities	\$270,462	\$ 0	\$270,462
US Treasury Note	50,035	50,035	0
Local Agency Investment Fund	54,593 <sup>(1)</sup>	0	0
<b>Total</b>	<u><u>\$375,090</u></u>	<u><u>\$50,035</u></u>	<u><u>\$270,462</u></u>

<sup>(1)</sup> Local Agency Investment Fund is not subject to the fair value measurements classification.

**Pension Benefits Trust Cash and Investments:**

<u>Investment Type</u>	<u>Amount</u>	<u>Fair Value</u>
		<u>Measurements</u>
		<u>Level 1</u>
Mutual Funds - Equities	\$52,780	\$52,780
Mutual Funds - Fixed Income Bonds	25,590	25,590
Mutual Funds - Money Market	19	0
<b>Total</b>	<u><u>\$78,389</u></u>	<u><u>\$78,370</u></u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(3) Interest Rate Swap Agreements**

In September 2003, the District's Board of Directors approved a policy regarding the use of interest rate swap transactions. The policy provides that interest rate swap transactions will be designed to enhance the relationship between risk and return with respect to an investment or a program of investments entered into by the District; and/or to reduce the amount or duration of payment, rate, spread, or similar risk; and/or result in a lower cost of borrowing when used in combination with bonds or other indebtedness of the District. Pursuant to the policy, the Board of Directors authorizes general parameters for interest rate swap transactions while the Finance and Personnel Committee structures specific transactions within the Board-authorized parameters. The Treasurer, with the concurrence of the Chairman of the Finance and Personnel Committee, is authorized to enter into interest rate swap transactions that are within all authorized parameters.

The International Swaps and Derivatives Association, Inc. (ISDA) Master Agreement, including the schedule and credit support annex, is used as the form of contract with interest rate swap counterparties. The District is compliant with all Dodd-Frank Protocol provisions regarding swap advisor representation and transparency.

During FY 2018-19 three fixed payer interest rate swaps matured, representing a notional amount of \$70 million. All remaining outstanding interest rate swaps are pay-fixed, receive variable swaps ("fixed payer swaps"). As of June 30, 2019, the notional amount and fair value balance of the District's interest rate swaps is \$60.0 million and (\$20.7) million, respectively. For the year ended June 30, 2019, the decrease in fair market value of the fixed payer interest rate swaps was \$2.6 million.

The fair value of the swap agreements at June 30, 2019 is calculated using a zero-coupon method (Level 2 inputs). This method calculates the future net settlement payments required by the swaps, assuming, for the LIBOR fixed payer swaps, that the current LIBOR forward rates implied by the LIBOR yield curves correctly anticipate future LIBOR spot interest rates. These payments are discounted using the spot rates implied by the current yield curves for hypothetical zero-coupon bonds due on the date of each future net settlement of the swaps.

The District's fixed payer swaps were executed in 2004, and became effective in 2007. The purpose of the fixed payer swaps was to hedge a portion of the interest rate risk exposure associated with the District's 100% variable rate debt structure at the time the swaps were executed. The interest rate swap notional amounts and maturities are not specifically related to a particular District debt issue, however are considered a hedge of a pooled portion of the District's variable rate debt exposure. The following table displays the objective and terms of the District's interest rate swaps outstanding at June 30, 2019, along with the credit rating of the associated counterparty.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(3) **Interest Rate Swap Agreements (Continued)**

Current Year Active Interest Rate Swaps (in thousands):

Type	Objective	Notional Amount	Effective Date	Maturity Date	Terms	Counterparty Rating
Fixed Payer	Hedge of changes in cash flows on pool of variable rate debt issues	\$30,000	3/10/07	3/10/29	Pay 5.687%; receive 1-Mo. LIBOR	Aa2/A+/AA-
Fixed Payer	Hedge of changes in cash flows on pool of variable rate debt issues	\$30,000	3/10/07	3/10/29	Pay 5.687%; receive 1-Mo. LIBOR	Aa3/A+/A+

The ISDA agreements for the above referenced interest rate swaps include a provision that the counterparties shall be required to post collateral should the mark-to-market value of the total interest rate swap portfolio with the respective counterparty, including any current outstanding swap accruals, exceed a threshold of (\$15.0) million. The amount of the collateral posted shall be the amount of the mark-to-market value and outstanding swap accrual amounts in excess of (\$15.0) million. As of June 30, 2019, the mark-to-market value of the total interest rate swaps with Citibank N.A. and Bank of America, N.A. as counterparties did not exceed the threshold amount.

*Credit risk:* The District is exposed to credit risk on interest rate swaps. To minimize its exposure to loss related to credit risk, the District's policy requires that the Finance and Personnel Committee evaluate and approve the counterparty creditworthiness of each counterparty prior to executing an ISDA Agreement, and all current swap agreements include collateral posting provisions. These terms require full collateralization of the fair value of interest rate swaps in asset positions (net of the effect of applicable netting arrangements) should the counterparty's credit rating fall below BBB+ as issued by Fitch Ratings and Standard & Poor's or Baa1 as issued by Moody's Investors Service. Collateral posted is to be in the form of U.S. Treasuries, or other approved securities, held by a third-party custodian.

The District has executed interest rate swap transactions with two counterparties. Their ratings are Aa2/A+/AA- (50% of net exposure to credit risk) and Aa3/A+/A+ (50% of net exposure to credit risk) as of June 30, 2019.

*Interest rate risk:* The District is exposed to interest rate risk on its interest rate swaps. On its fixed payer swaps, as LIBOR's swap index decreases, the District's net payment on the swap increases. Alternatively, on its fixed payer swaps, as LIBOR's swap index increases, the District's net payment on the swap decreases.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(3) Interest Rate Swap Agreements (Continued)**

*Basis risk:* The District is exposed to basis risk on its fixed payer swaps because the variable-rate payments received by the District on these swaps are based on a rate or index other than interest rates the District pays on its variable-rate debt, which is remarketed daily or weekly.

*Termination risk:* The District or its counterparties may terminate an interest rate swap if the other party fails to perform under the terms of the contract. If at the time of termination, an interest rate swap is in a liability position, the District would be liable to the counterparty for a payment equal to the liability, subject to netting arrangements.

*Collateral requirements:* All of the District’s interest rate swaps include provisions that require the District to post collateral in the event its credit rating falls below A as issued by Fitch Ratings and Standard & Poor’s or A2 as issued by Moody’s Investors Service.

The collateral posted is to be in the form of U.S. Treasuries or other approved securities in the amount of the fair value of interest rate swaps in liability positions net of the effect of applicable netting arrangements. If the District does not post collateral, the swaps may be terminated by the counterparty. The District’s credit rating is Aa1/AAA/AAA; therefore, no collateral has been posted at June 30, 2019.

**(4) Inventories**

Inventories consist of available water in storage and materials and supplies in the District’s warehouse facilities. As of June 30, 2019, the District had 36,203 acre-feet of banked water in various water bank facilities at a cost of \$7.8 million. Inventories at June 30, 2019 consisted of the following (in thousands):

Water in storage	\$ 7,814
Materials and supplies	<u>8,352</u>
<b>Total</b>	<u><u>\$16,166</u></u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(5) **Capital Assets**

Capital asset activity for the year ended June 30, 2019 is as follows (in thousands):

	Balance June 30, 2018	Additions	Deletions	Balance June 30, 2019
Capital assets:				
Land leasehold	\$ 4,860	\$ 0	\$ 0	\$ 4,860
Buildings and structures	739,443	27,669	(457)	766,655
Transmissions and distributions	1,277,227	104,757	(6,153)	1,375,831
Machinery and equipment	278,600	5,059	(3,043)	280,616
<b>Sub-total</b>	<b>2,300,130</b>	<b>137,485</b>	<b>(9,653)</b>	<b>2,427,962</b>
Less: Accumulated depreciation:				
Land leasehold	(1,262)	(97)	0	(1,359)
Buildings and structures	(289,270)	(17,148)	224	(306,194)
Transmissions and distributions	(427,294)	(36,918)	6,216	(457,996)
Machinery and equipment	(150,352)	(11,852)	2,182	(160,022)
<b>Sub-total</b>	<b>(868,178)</b>	<b>(66,015)</b>	<b>8,622</b>	<b>(925,571)</b>
<b>Total depreciable capital assets, net</b>	<b>1,431,952</b>	<b>71,470</b>	<b>(1,031)</b>	<b>1,502,391</b>
Capital assets, non-depreciable:				
Land and water rights	125,316	0	0	125,316
Construction in progress	333,490	108,940	(111,473)	330,957
<b>Total capital assets, net</b>	<b>\$1,890,758</b>	<b>\$180,410</b>	<b>\$ (112,504)</b>	<b>\$1,958,664</b>

Total projects transferred from Construction in Progress to Capital Assets and depreciated during the fiscal year ended June 30, 2019 were \$111.5 million. The District's proportionate share of the Orange County Sanitation District's jointly funded capital assets increased \$26.0 million during the fiscal year ended June 30, 2019.

(6) **Capitalized Amounts**

Certain administrative and general expenses relating to assets under construction are charged to construction-in-progress until the assets are ready for their intended use. The amount of administrative and general expenses capitalized to construction-in-progress for the fiscal year ended June 30, 2019 was \$10.5 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(7) **Real Estate Investments**

Real estate investments as of June 30, 2019 consist of the following (in thousands):

Real estate investments at fair value	\$229,590
Real estate loan receivable	81,600
Accrued interest on loan receivable	<u>6,106</u>
<b>Total</b>	<b><u>\$317,296</u></b>

The District has the following fair value measurements for the real estate investments (Level 3 inputs) (in thousands):

	<b>Balance June 30, 2018</b>	<b>Increase / (decrease) in Fair Value</b>	<b>Purchases / (Sales)</b>	<b>Balance June 30, 2019</b>
Wood Canyon Villas, L.P.	\$ 30,670	\$1,840	\$(3,800)	\$ 28,710
Sycamore Canyon Apartments	145,000	3,625	0	148,625
230 Commerce Office Property	11,500	230	0	11,730
Waterworks Way Business Park	9,000	180	0	9,180
Sand Canyon Professional Center	11,000	220	0	11,220
Sand Canyon General Office	14,224	0	5,901	20,125
<b>Total</b>	<b><u>\$221,394</u></b>	<b><u>\$6,095</u></b>	<b><u>\$ 2,101</u></b>	<b><u>\$229,590</u></b>

Net real estate income as of June 30, 2019 is as follows (in thousands):

Real estate income	\$17,813
Increase (decrease) in fair value of real estate investments	6,095
Real estate expense	<u>(9,441)</u>
<b>Net real estate income</b>	<b><u>\$14,467</u></b>

Included in real estate investments are two apartment properties, three commercial office buildings and one entitled land property. The District, through Bardeen Partners, Inc., is the sole limited partner in Wood Canyon Villas, L.P. (Wood Canyon), and the sole owner of both Sycamore Canyon Apartments and a commercial office building (230 Commerce). Separate from Bardeen Partners, Inc., the District is the sole owner of two other commercial office buildings (Waterworks Way Business Park and Sand Canyon Professional Center) and one entitled land property Sand Canyon General Office. The District is currently constructing a new office building on the Sand Canyon General Office property, which is expected to be completed in spring 2020. In addition, the District has an \$81.6 million loan receivable from the sale of the Serrano Summit property due on or before April 30, 2020.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(7) Real Estate Investments (Continued)**

The construction of Wood Canyon Villas, a 230-unit apartment property, was completed in 1993. The property is located in Orange County, California, and was 96% occupied at June 30, 2019. The Wood Canyon partnership agreement provides the District with a 9% cumulative preferred return on its unrecovered contribution accounts, as defined in the agreement (\$6.0 million contribution). In addition to the preferred return, the District received a \$3.8 million cash distribution during the current fiscal year. The property's fair value and the District's partnership interest was determined using an appraisal valuation in 2018 and adjusted with a growth factor in 2019.

In 1992, the District acquired a 450-unit apartment property (original cost, \$34.1 million) in Orange County, California known as Sycamore Canyon Apartments. The property was 96% occupied at June 30, 2019. The Sycamore Canyon Apartments completed a renovation project in 2007 for a total cost of \$9.6 million. The property's fair value was determined using an appraisal valuation in 2018 and adjusted with a growth factor in 2019.

In 2003, the District completed construction of the 41,000 square foot for-lease 230 Commerce professional office building located in Irvine, California. Land and construction costs for the project totaled \$5.6 million and the building was 80% occupied as of June 30, 2019. The property's fair value was determined using an appraisal valuation in 2018 and adjusted with a growth factor in 2019.

In November 2008, the District completed construction of a 37,200 square foot for-lease R&D office building located in Irvine, California known as the Waterworks Way Business Park. Construction of the building was a specific facilities requirement of the purchase agreement for land acquired for an adjacent District water treatment facility. Land and construction costs for the office project totaled \$9.0 million. As of June 30, 2019, the building was 100% occupied. The property's fair value was determined using an appraisal valuation in 2018 and adjusted with a growth factor in 2019.

In April 2012, the District completed construction of a 16,350 square foot for-lease medical office building located in Irvine, California known as the Sand Canyon Professional Center. Land and construction costs for the project totaled \$8.4 million and the building was 100% occupied as of June 30, 2019. The property's fair value was determined using an appraisal valuation in 2018 and adjusted with a growth factor in 2019.

The District has a 5.8-acre general office site located in Irvine, California at the Sand Canyon Professional Center. Land and related entitlement costs totaled \$5.0 million as of June 30, 2018. The fair value of the land was determined using an appraisal valuation in 2018. In January 2019, the District began construction of a new for-lease 70,000 square foot office building on the Sand Canyon Office property. The new building is expected to be completed in spring 2020. Design and construction costs totaled \$5.9 million as of June 30, 2019.



**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(7) Real Estate Investments (Continued)**

On September 1, 2017, the District entered into a loan agreement with Lennar Homes of California, Inc. for a principal amount of \$81.6 million from the sale of IRWD's Serrano Summit property located in Lake Forest. On July 24, 2019, the District executed an amendment to the loan agreement for an eight-month extension of the original September 1, 2019 maturity. The loan amendment also increased the principal amount to include interest earned to September 1, 2019 for a total principal amount of \$88.1 million, bearing a 4.0% per annum interest rate. The entire outstanding principal balance and all accrued unpaid interest will be paid in a single lump sum on or before April 30, 2020. The loan is secured by the Serrano Summit property. The balance of the loan was stated at cost as of June 30, 2019.

**(8) Orange County Sanitation District (OCSD)**

The District, with OCSD, negotiated an agreement as of July 1, 1985, which has been amended from time to time. The District agreed to annually fund payment of the District's proportionate share of OCSD's joint capital outlay revolving fund (CORF) budget requirements and certain capital improvements, calculated on an annual flow basis using the four highest months of actual flows, during the term of the agreement.

The capital assets associated with this agreement are co-owned by the two agencies and provide an operational benefit to both agencies. The District's ownership of capital assets payments to OCSD for the fiscal year ended June 30, 2019 totaled \$19.7 million. In addition, the District's CORF payments to OCSD for the fiscal year ended June 30, 2019 totaled \$3.8 million. The District's share of the jointly funded capital assets and CORF is included in capital assets in the District's basic financial statements

In May 2018, the District and OCSD agreed to extend the agreement, providing for treatment and disposal by OCSD of District solids and the temporary lease of capacity in OCSD's solids treatment and disposal facilities through December 31, 2021. The capacity lease for the fiscal year ended June 30, 2019, estimated at \$2.4 million, is included in Sewer Services as an operating expense.

The accompanying basic financial statements reflect management's best estimate of balances pertaining to this agreement based upon information provided by OCSD. Periodically this information is subjected to further review by the performance of agreed upon procedures when the records for such review have been made available to the District. Adjustments pertaining to the accounting estimates associated with this agreement are recognized as the information for such adjustments becomes available

As of June 30, 2019, the District had a net payable of \$0.8 million to OCSD which is reflected as an account payable and accrued expenses liability in the District's basic financial statements.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(9) **Long-Term Liabilities**

Long-term liability activity for the year ended June 30, 2019 is as follows (in thousands):

	Balance June 30, 2018	Additions	Deletions	Balance June 30, 2019	Due within One Year	Due in more than one Year
<b>General Obligation Bonds:</b>						
1993 C Consolidated	\$ 29,900	\$ 0	\$ (1,600)	\$ 28,300	\$ 1,700	\$ 26,600
2008A Refunding	49,500	0	(1,500)	48,000	1,500	46,500
2009A Consolidated	60,000	0	(2,500)	57,500	2,500	55,000
2009B Consolidated	60,000	0	(2,500)	57,500	2,500	55,000
2010B BABS	175,000	0	0	175,000	0	175,000
2011A-1 Refunding	49,920	0	(1,680)	48,240	1,740	46,500
2011A-2 Refunding	33,280	0	(1,120)	32,160	1,160	31,000
2016 Consolidated	103,400	0	0	103,400	0	103,400
Unamortized Premium	25,493	0	(924)	24,569	924	23,645
<b>Sub-total</b>	<b>586,493</b>	<b>0</b>	<b>(11,824)</b>	<b>574,669</b>	<b>12,024</b>	<b>562,645</b>
<b>Certificates of Participation:</b>						
2010 Refunding Certificates	3,775	0	(1,795)	1,980	1,980	0
2016 Certificates	116,745	0	0	116,745	0	116,745
Unamortized Premium	29,755	0	(1,736)	28,019	1,736	26,283
<b>Sub-total</b>	<b>150,275</b>	<b>0</b>	<b>(3,531)</b>	<b>146,744</b>	<b>3,716</b>	<b>143,028</b>
<b>Notes Payable</b>	<b>947</b>	<b>0</b>	<b>(263)</b>	<b>684</b>	<b>265</b>	<b>419</b>
<b>Other Long-Term Liabilities:</b>						
Compensated Absences	4,226	4,403	(3,976)	4,653	1,861	2,792
Other Long-Term Liabilities	1,320	2,725	(3,137)	908	209	699
<b>Sub-total</b>	<b>5,546</b>	<b>7,128</b>	<b>(7,113)</b>	<b>5,561</b>	<b>2,070</b>	<b>3,491</b>
<b>Total Long-Term Liabilities</b>	<b>\$743,261</b>	<b>\$7,128</b>	<b>\$(22,731)</b>	<b>\$727,658</b>	<b>\$18,075</b>	<b>\$709,583</b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(9) **Long-Term Liabilities (Continued)**

The following schedule summarizes the major terms of outstanding long-term debt (in thousands):

	Date of Issue	Original Issue	Revenue Sources	Final Maturity Date	Interest Rates
<b>General Obligation Bonds:</b>					
1993 Consolidated	May 1, 1993	\$38,300	(1)(3)	April 1, 2033	Variable
2008A Refunding	April 1, 2008	60,215	(1)(3)	July 1, 2035	Variable
2009A Consolidated	June 4, 2009	75,000	(1)(3)	October 1, 2041	Variable
2009B Consolidated	June 4, 2009	75,000	(1)(3)	October 1, 2041	Variable
2010B BABS	December 16, 2010	175,000	(1)(2)(3)	May 1, 2040	6.60%
2011A-1 Refunding	April 15, 2011	60,545	(1)(2)(3)	October 1, 2037	Variable
2011A-2 Refunding	April 15, 2011	40,370	(1)(2)(3)	October 1, 2037	Variable
2016 Consolidated	October 12, 2016	103,400	(1)(2)(3)	February 1, 2046	5.00% - 5.25%
<b>Certificates of Participation:</b>					
2010 Certificates	February 23, 2010	85,145	(2)	March 1, 2020	3.80%
2016 Certificates	September 1, 2016	116,745	(2)	March 1, 2046	5.00%

- (1) Ad valorem assessments or, in lieu of assessments, in the District's discretion, charges for water or sewer service.
- (2) Available water, sewer, and recycled water revenues.
- (3) Proceeds from the sale of property.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(9) **Long-Term Liabilities (Continued)**

**General Obligation Bonds**

The annual debt service requirements for the General Obligation Bonds, including principal and interest payments (based on variable interest rates at June 30, 2019 ranging from 1.32% to 1.67% and the fixed rate for the 2010B BABs issue and 2016 Consolidated issue) are as follows (in thousands):

<b>Fiscal Year</b>	<b>Principal</b>	<b>Interest</b>	<b>Hedging Instruments, Net</b>	<b>BAB Federal Subsidy</b>	<b>Total</b>
2020	\$ 11,100	\$ 20,802	\$ 2,002	\$ (3,817)	\$ 30,087
2021	11,300	20,642	2,002	(3,817)	30,127
2022	14,155	20,479	2,002	(3,817)	32,819
2023	14,365	20,199	2,002	(3,817)	32,749
2024	14,775	19,911	2,002	(3,817)	32,871
2025-2029	96,560	82,476	10,008	(18,416)	170,628
2030-2034	125,310	71,473	0	(16,363)	180,420
2035-2039	176,380	47,221	0	(10,332)	213,269
2040-2044	72,340	10,437	0	(619)	82,158
2045-2046	13,815	1,097	0	0	14,912
<b>Sub-total</b>	550,100	314,737	20,018	(64,815)	820,040
Plus: Unamortized premium	24,569	0	0	0	24,569
<b>Total</b>	<b>\$574,669</b>	<b>\$314,737</b>	<b>\$20,018</b>	<b>\$(64,815)</b>	<b>\$844,609</b>

The above table incorporates the net receipts/payments of the hedging instruments that are associated with the variable rate debt issue(s). The amounts assume that current interest rates on variable rate bonds and the current reference rates of the hedging instruments will remain the same for their term. As these rates vary, interest payments on variable rate bonds and net receipts/payments on the hedging instruments will vary. Additionally, the above table includes the most recent BABs subsidy reduction of 5.9% under the Congressionally-mandated sequestration which began in FY 2012-13. Refer to Note 3 for additional information regarding the hedging instruments associated with the debt of the District.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(9) **Long-Term Liabilities (Continued)**

**Certificates of Participation**

In February 2010, the Irvine Ranch Water District Service Corporation issued \$85.1 million of Certificates of Participation Refunding Series 2010 (the Series 2010 Certificates) to refinance the cost of certain capital improvements by refunding the outstanding principal amount of the Certificates of Participation Series 1986 and Series 2008. In September 2016, the Irvine Ranch Water District Service Corporation issued \$116.7 million of Certificates of Participation Series 2016 (the Series 2016 Certificates) to finance the cost of certain capital improvements and to refund a portion of the outstanding Series 2010 Certificates.

The annual debt service requirements for the Certificates of Participation, including principal and interest payments, are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2020	\$ 1,980	\$ 5,936	\$ 7,916
2021	3,420	5,837	9,257
2022	3,675	5,666	9,341
2023	3,940	5,483	9,423
2024	4,220	5,286	9,506
2025-2029	26,270	22,923	49,193
2030-2034	26,280	15,627	41,907
2035-2039	16,990	10,618	27,608
2040-2044	21,680	5,925	27,605
2045-2046	10,270	777	11,047
<b>Sub-total</b>	118,725	84,078	202,803
Plus: Unamortized premium	28,019	0	28,019
<b>Total</b>	<b>\$146,744</b>	<b>\$84,078</b>	<b>\$230,822</b>

**Notes Payable**

The District has one outstanding loan from the State of California to fund reclaimed water projects. The balance on the 2000 loan was \$0.2 million at June 30, 2019. The annual interest rate is 0.00%; however, the loan agreement required the District to prepay interest of \$0.6 million, which is amortized over the life of the loan. The loan is payable annually in fixed installments of \$0.2 million through 2020.

The District also has one outstanding loan, which was assumed as a result of its consolidation with the Santiago County Water District. The original loan amount was \$1.3 million. The loan is payable semi-annually with interest at 2.32%. The loan matures in July 2025. The balance of the loan at June 30, 2019 was \$0.5 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(9) **Long-Term Liabilities (Continued)**

**Notes Payable (Continued)**

Amounts required to amortize notes payable at June 30, 2019 are as follows (in thousands):

<b>Fiscal Year</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>
2020	\$265	\$43	\$308
2021	72	9	81
2022	74	8	82
2023	76	6	82
2024	77	4	81
2025-2026	120	3	123
<b>Total</b>	<b>\$684</b>	<b>\$73</b>	<b>\$757</b>

(10) **Unearned Revenue**

Unearned revenue at June 30, 2019 consisted of the following (in thousands):

Unearned revenue, current portion	\$ 565
Unearned revenue, net of current portion	<u>5,392</u>
<b>Total</b>	<b><u>\$5,957</u></b>

On November 10, 2008, the Board approved the South Orange County – Irvine Ranch Water District Interconnection Projects Participation Agreement (Agreement). The Agreement was effective on November 2008 between the District, City of San Clemente (CSC), Laguna Beach County Water District (LBCWD), Moulton Niguel Water District (MNWD), Santa Margarita Water District (SMWD), South Coast Water District (SCWD), Municipal Water District of Orange County (MWDOC), and Orange County Water District (OCWD). The purpose of the Agreement is to allow the South County water agencies (CSC, LBCWD, MNWD, SMWD, and SCWD) to reserve capacity in the District system and reimburse the District for various new intertie facilities which provide that up to 25 cfs of water supply per month may be made available during a water supply disruption. The total cost of the agreement was paid in full by each party in the fiscal year ended June 30, 2009. The amount of unearned revenue related to the South County Water Agencies is amortized over 20 years, the term of the Agreement. The amount of amortization for the fiscal year ended June 30, 2019 was \$0.5 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(11) Letters of Credit**

The District has letters of credit securing the payment of principal and interest on certain General Obligation Bonds. The letters of credit are issued in favor of the trustees and enable the trustees to make drawings against the letters of credit for payment of principal and interest amounts.

The terms of the letters of credit, as of June 30, 2019 are summarized as follows (in thousands):

<b>Letter of Credit</b>	<b>Trustee</b>	<b>Amount</b>	<b>Expiration Date</b>
Bank of America:			
2009 Series B Consolidated	U.S. Bank	\$ 58,143	May 16, 2022
Sumitomo Mitsui:			
2008 Series A Refunding	Bank of New York Mellon	48,710	July 21, 2021
U.S. Bank:			
1993 Consolidated	Bank of New York Mellon	28,681	December 15, 2021
2009 Series A Consolidated	U.S. Bank	58,143	December 15, 2021

**(12) Net Position**

Net position at June 30, 2019 consisted of the following (in thousands):

Net investment in capital assets:	
Property, plant and equipment, net	\$1,958,664
Less:	
Outstanding debt issued to construct capital assets:	
General obligation bonds	(574,669)
Certificates of participation	(146,744)
Notes payable	(684)
Deferred refunding charges	2,267
<b>Total net investment in capital assets</b>	<b>1,238,834</b>
Restricted net position:	
Restricted for water services	312,955
Restricted for sewer services	376,213
<b>Total restricted net position</b>	<b>689,168</b>
<b>Total net position</b>	<b><u>\$1,928,002</u></b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(13) Defined Benefit Pension Plan**

**Plan Descriptions**

All qualified employees are eligible to participate in the District’s agent multiple-employer public employee defined benefit pension plan which is administrated by the California Public Employees’ Retirement System (CalPERS). CalPERS acts as a common investment and administrative agent for participating public entities within the State of California. Benefit provisions and all other requirements are established by State statute and the District’s Board of Directors. CalPERS issues publicly available reports that include a full description of the pension plans regarding benefit provisions, assumptions and membership information that can be found on the CalPERS website at [www.calpers.ca.gov](http://www.calpers.ca.gov).

**Benefits Provided**

CalPERS provides service retirement and disability benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service, equal to one year of full time employment. The Plan’s provisions and benefits in effect at June 30, 2019, are summarized as follows:

	Hire Date		
	Prior to October 1, 2012	On or after October 1, 2012 to December 31, 2012	On or after January 1, 2013
Benefit Formula	2.5% @ 55	2.0% @ 60	2.0% @ 62
Benefit Vesting Schedule	5 Years of Service	5 Years of Service	5 Years of Service
Benefit Payments	Monthly for Life	Monthly for Life	Monthly for Life
Minimum Retirement Age	50	50	52
Monthly Benefits, as a % of Eligible Compensation	2.0% to 2.5%	1.092% to 2.418%	1.0% to 2.5%
Required Employee Contribution Rate	8.00%	7.00%	5.25%
Required Employer Normal Cost Rate	7.510%	7.510%	7.510%

In addition, the District made a \$4.5 million unfunded liability contribution during the current fiscal year.

**Employees Covered**

As of June 30, 2017, the following employees were covered by the benefit terms for the Plan:

Active Employees	362
Inactive Employees or Beneficiaries Currently Receiving Benefits	274
Inactive Employees Entitled to But not Yet Receiving Benefits	194
<b>Total</b>	<b>830</b>



**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(13) Defined Benefit Pension Plan (Continued)**

**Contributions**

Section 20814(c) of the California Public Employees’ Retirement Law (PERL) requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. The total plan contributions are determined through the CalPERS annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. Employer contribution rates may change if plan contracts are amended. Payments made by the employer to satisfy contribution requirements that are identified by the pension plan terms as plan member contribution requirements are classified as plan member contributions.

**Actuarial Methods and Assumptions Used to Determine Total Pension Liability**

As of June 30, 2019, the total pension liability was determined using the following actuarial methods and assumptions:

Actuarial Cost Method	Entry Age Normal in accordance with the requirements of GASB 68
Actuarial Assumptions:	
Discount Rate	7.15%
Inflation	2.50%
Salary Increases	Varies by Entry Age and Service
Mortality Rate Table <sup>(1)</sup>	Derived using CalPERS’ Membership Data for all Funds
Post Retirement Benefit Increase	Contract COLA up to 2.0% until Purchasing Power Protection Allowance Floor on Purchasing Power applies, 2.50% thereafter

<sup>(1)</sup> The mortality table used was developed based on CalPERS’ specific data. The table includes 15 years of mortality improvements using Society of Actuaries Scale 90% of scale MP 2016. For more details on this table, please refer to the December 2017 experience study report (based on CalPERS demographic data from 1997 to 2015) that can be found on the CalPERS website.

**Long-term Expected Rate of Return**

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(13) Defined Benefit Pension Plan (Continued)**

**Long-term Expected Rate of Return (Continued)**

Using historical returns of all of the funds' asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11+ years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the rounded single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equal to the single equivalent rate calculated above and adjusted to account for assumed administrative expenses. The expected real rates of return by asset class are as followed:

<b>Asset Class <sup>(1)</sup></b>	<b>Assumed Asset Allocation</b>	<b>Real Return Years 1 – 10 <sup>(2)</sup></b>	<b>Real Return Years 11+ <sup>(3)</sup></b>
Global Equity	50.0%	4.80%	5.98%
Fixed Income	28.0%	1.00%	2.62%
Inflation Assets	0.0%	0.77%	1.81%
Private Equity	8.0%	6.30%	7.23%
Real Estates	13.0%	3.75%	4.93%
Liquidity	1.0%	0.00%	(0.92%)
<b>Total</b>	<b>100%</b>		

- (1) In the CalPERS' CAFR, Fixed Income is included in Global Debt Securities; Liquidity is included in Short-term Investments; Inflation Assets are included in both Global Equity Securities and Global Debt Securities.
- (2) An expected inflation of 2.00% used for this period.
- (3) An expected inflation of 2.92% used for this period.

**Change in Assumptions**

For the measurement period ended June 30, 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017.

**Discount Rate**

The discount rate used to measure the total pension liability was 7.15 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers will be made at statutorily required rates, actuarially determined. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(13) Defined Benefit Pension Plan (Continued)**

**Pension Plan Fiduciary Net Position**

The plan fiduciary net position disclosed in the GASB 68 accounting valuation report may differ from the plan assets reported in the funding actuarial valuation report due to several reasons. For example, for the accounting reports, CalPERS must keep items such as deficiency reserves and fiduciary self-insurance included as assets. These amounts are excluded for rate setting purposes in the funding actuarial valuation.

**Changes in the Net Pension Liability**

The changes in the net pension liability for the Plan were as follows (in thousands):

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)
	(a)	(b)	(c) = (a) - (b)
<b>Balance at June 30, 2018</b>	\$264,399	\$197,718	\$66,681
<b>Changes Recognized for the Period:</b>			
Service Cost	5,098	0	5,098
Interest	18,570	0	18,570
Changes of Assumptions	(1,605)	0	(1,605)
Difference between Expected and Actual Experience	(235)	0	(235)
Contributions – Employer	0	6,157	(6,157)
Contributions – Employees	0	2,401	(2,401)
Net Investment Income	0	16,707	(16,707)
Benefit Payments, Including Refunds of Employee Contributions	(10,770)	(10,770)	0
Administrative Expense	0	(308)	308
Other Miscellaneous Expense <sup>(1)</sup>	0	(585)	585
<b>Net Change</b>	<b>11,058</b>	<b>13,602</b>	<b>(2,544)</b>
<b>Balance at June 30, 2019</b>	<b>\$275,457</b>	<b>\$211,320</b>	<b>\$64,137</b>

<sup>(1)</sup> During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California’s agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(13) Defined Benefit Pension Plan (Continued)**

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

The following presents the net pension liability of the Plan, calculated using the discount rate of 7.15 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower (6.15 percent) or 1 percentage-point higher (8.15 percent) than the current rate (in thousands):

	<b>Discount Rate -1% (6.15%)</b>	<b>Current Discount Rate (7.15%)</b>	<b>Discount Rate +1% (8.15%)</b>
Plan's Net Pension Liability	\$101,766	\$64,137	\$32,971

**Subsequent Events**

There were no subsequent events that would materially affect the results presented in this disclosure.

**Recognition of Gains and Losses**

Under GASB 68, gains and losses related to changes in total pension liability and fiduciary net position are recognized in pension expense systematically over time. The first amortized amounts are recognized in pension expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to pensions and are to be recognized in future pension expense.

The amortization period differs depending on the source of the gain or loss:

Net Difference between Projected and Actual Earnings on Pension Plan Investments	5 year straight-line amortization
All Other Amounts	Straight-line amortization over the expected average remaining service lifetime (EARSL) of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period

The EARSL for the Plan for the fiscal year ended June 30, 2019 was 4.7 years, which was obtained by dividing the total service years of 3,860 (the sum of remaining service lifetimes of the active employees) by 830 (the total number of participants: active, inactive, and retired). Inactive employees and retirees have remaining service lifetimes equal to 0. Total future service is based on the members' probability of decrementing (leaving employment) due to an event other than receiving a cash refund.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(13) **Defined Benefit Pension Plan (Continued)**

**Pension Expense and Deferred Outflows and Deferred Inflows of Resources Related to Pensions**

For the fiscal year ended June 30, 2019, the District recognized pension expense of \$8.8 million. At June 30, 2019, the District reported deferred outflows and deferred inflows of resources related to pensions from the following sources (in thousands):

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Pension Contributions made Subsequent to the Measurement Date	\$ 7,184	\$ 0
Differences between Expected and Actual Experiences	37	1,721
Changes in Assumptions	8,435	1,552
Net Difference between Projected and Actual Earnings on Pension Plan Investments	320	0
<b>Total</b>	<b>\$15,976</b>	<b>\$3,273</b>

\$7.2 million reported as deferred outflows of resources related to employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the fiscal year ending June 30, 2020. \$5.5 million net of deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows (in thousands):

<b>Fiscal Year</b>	<b>Deferred Outflows/ (Inflows) of Resources</b>
2020	\$4,333
2021	2,943
2022	(937)
2023	(820)
<b>Total</b>	<b>\$5,519</b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(13) Defined Benefit Pension Plan (Continued)**

**Funding of CalPERS Plan and Pension Benefits Trust**

The District recognizes that defined benefit plans and the related future pension obligations pose significant issues for many government agencies. The District has taken a proactive approach to address the issue and in 2013, established a Pension Benefits Trust to substantially fund its PERS unfunded liability. The Pension Benefits Trust provides the District with an alternative to PERS that allows for investment by a professional fund management team selected and monitored by the District. The Pension Benefits Trust holds the funding contributions for the District pending future remittance to the CalPERS pension trust fund which will pay all retiree benefit payments to employees associated with the plan. Future contributions will be transferred from the Pension Benefits Trust to CalPERS at the District's discretion.

As of June 30, 2019, the total value of the assets in the Pension Benefits Trust was approximately \$78.4 million.

The following schedule shows the District's total pension liability, CalPERS assets, Pension Benefits Trust assets, and the relationship of the total pension liability (in thousands):

Fiscal Year <sup>(1)</sup>	Total Pension Liability	CalPERS Assets	Net Pension Liability/ (Asset)	Pension Benefits Trust Assets	CalPERS Assets as a Percentage of the Total Pension Liability	Pension Benefits Trust Assets as a Percentage of the Total Pension Liability	Total Pension Assets as a Percentage of the Total Pension Liability
	06/30/17	\$238,009	\$179,769	\$58,240	\$47,132	75.5%	19.8%
06/30/18	264,399	197,718	66,681	66,101	74.8%	25.0%	99.8%
06/30/19	275,457	211,320	64,137	73,106	76.7%	26.5%	103.2%

<sup>(1)</sup> As of the measurement date June 30, 2016, 2017, and 2018 respectively.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(14) Other Post-Employment Benefits**

**Plan Descriptions**

The District administers three other post-employment benefits (OPEB) plans which are subject to changes based on the discretion of the Board:

- **PEMHCA:** The District provides an agent multiple-employer defined benefit healthcare plan to retirees through the California Public Employee Retirement System (CalPERS) under the California Public Employees Medical and Hospital Care Act (PEMHCA), commonly referred to as PERS Health. Employees are eligible for this lifetime benefit if they retire from the District and are eligible to begin drawing a PERS pension. Participation in PEMHCA is financed in part by the District through a contribution of \$136 per month per participating retiree.
- **RHCAP:** The District also administers a single-employer defined benefit Retiree Health Costs Assistance Program (RHCAP), which provides medical benefits to covered employees and their eligible dependents. The duration of the benefit is based on employees' years of service as follows: 12 months of benefits for employees with 3-7 years of service; 24 months of benefits for employees with 8-9 years of services; 36 months of benefits for employees with 10-14 years of service; 48 months of benefits for employees with 15-19 years of service; and 60 months of benefits for employees with at least 20 years of service. Employees are eligible for this benefit if they retire from the District on or after age 55 with at least three years of service. The District reimburses retirees for eligible healthcare costs of up to \$160 per month (for retirees with at least three years of service at the District), to a maximum of \$600 per month after 25 years of service.
- **Retiree Death Benefit Only Plan:** The District administers a single-employer defined benefit plan. Employees hired on or before December 31, 2008 and who retire from the District on or after age 55 with at least 10 years of service at the District are eligible for term life insurance with a face amount equal to 100% of their final annual salary at the time of retirement. Employees hired after December 31, 2008 are not currently eligible for this plan.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(14) Other Post-Employment Benefits (Continued)**

**Employees Covered**

As of the June 30, 2018 actuarial valuation, the following employees were covered by the benefit terms under each Plan:

	<b>PEMHCA</b>	<b>RHCAP</b>	<b>Death Benefit Only</b>	<b>Total</b>
Inactive Employees or Beneficiaries Currently Receiving Benefits	97	47	0	144
Inactive Employees Entitled to But not Yet Receiving Benefits	89	0	149	238
Active Employees	370	370	160	900
<b>Total</b>	<b>556</b>	<b>417</b>	<b>309</b>	<b>1,282</b>

**Contributions**

The contributions for the District's various other post-employment benefits are based on pay-as-you-go financing requirements.

For the fiscal year ended June 30, 2019, the District's cash contributions were \$0.5 million and estimated implied subsidy was \$0.2 million resulting in total payments of \$0.7 million. The following shows contributions by each OPEB plan (in thousands):

	<b>PEMHCA</b>	<b>RHCAP</b>	<b>Retiree Death Benefit Only</b>	<b>Total</b>
Cash Contributions	\$163	\$332	\$10	\$505
Estimated Implied Subsidy	216	0	0	216
<b>Total</b>	<b>\$379</b>	<b>\$332</b>	<b>\$10</b>	<b>\$721</b>



**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(14) **Other Post-Employment Benefits (Continued)**

**Actuarial Methods and Assumptions Used to Determine Total OPEB Liability**

The June 30, 2018 valuation was used to determine the June 30, 2018 total OPEB liability, based on the following actuarial methods and assumptions:

	<b>PEMHCA</b>	<b>RHCAP</b>	<b>Retiree Death Benefit Only</b>
Actuarial Method	Entry Age Normal		
Actuarial Assumptions:			
Contribution Policy	Pay-as-you-go		
Discount Rate	3.87% at June 30, 2018 and 3.581% at June 30, 2017 (Bond Buyer 20-Bond Index)		
Inflation	2.75% Annually		
Mortality, Disability, Termination, Retirement	CalPERS 1997-2015 Experience Study		
Mortality Improvement	Post-retirement Mortality Projected Fully Generational with Scale MP-2018		
Salary Increases	3% Annually and CalPERS 1997-2015 Experience Study		
Medical Trend	Non-Medicare –7.5% for 2020, decreasing to 4.0% in 2076 Medicare – 6.5% for 2020, decreasing to 4.0% in 2076	Not Applicable	
Minimum Increase	4.25% Annually	Not Applicable	
Participation at Retirement	Medical Coverage: 70% if eligible for RHCAP. Otherwise, 50% if currently in District's medical plan, 0% if not.	100% Participate	

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(14) **Other Post-Employment Benefits (Continued)**

**Change in Assumptions**

For the fiscal year ended June 30, 2018 measurement period, the changes in assumptions was as follows:

PEMHCA	RHCAP	Retiree Death Benefit Only
Discount rate was increased from 3.581% to 3.87% based on municipal bond rate as of the measurement date.		
Demographic assumptions were updated to CalPERS 1997-2015 Experience Study. Mortality improvement scale was updated to Scale MP-2018.		
Medical claims costs were developed by Axene Health Partners based on demographic data for the CalPERS health plans provided by CalPERS and Axene's proprietary AHP Cost Model.	Not Applicable	
Short term medical trend was developed in consultation with Axene Health Partners' healthcare actuaries. Long-term medical trend developed using the Society of Actuaries Getzen Model of Long-Run Medical Cost Trends.	Not Applicable	
Participation at retirement for medical coverage was updated to 70% if eligible for RHCAP.	Not Applicable	
A 2% load on the cash liability was added to estimate the ACA Excise Tax.	Not Applicable	

**Discount Rate**

The discount rate used to measure the total OPEB liability was 3.87 percent which was based on the Bond Buyer 20-Bond G.O. Index.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(14) Other Post-Employment Benefits (Continued)**

**Changes in the OPEB Liability**

The changes in the OPEB liability were as follows (in thousands):

	<b>PEMHCA</b>	<b>RHCAP</b>	<b>Retiree Death Benefit Only</b>	<b>Total</b>
<b>Balance at June 30, 2018</b>	\$ 9,855	\$3,126	\$1,597	\$14,578
<b>Changes Recognized for the Period:</b>				
Service Cost	472	148	28	648
Interest	364	112	58	534
Changes in Assumptions	682	1	(10)	673
Difference between Expected and Actual Experience	951	125	(168)	908
Benefit Payments	(343)	(306)	(20)	(669)
<b>Net Change</b>	<b>2,126</b>	<b>80</b>	<b>(112)</b>	<b>2,094</b>
<b>Balance at June 30, 2019</b>	<b>\$11,981</b>	<b>\$3,206</b>	<b>\$1,485</b>	<b>\$16,672</b>

**Sensitivity of the OPEB Liability to Changes in the Discount Rate**

The following presents the OPEB liability, calculated using a discount rate that is one percentage point lower or one percentage higher than the current rate for the measurement period ended June 30, 2018 (in thousands).

	<b>Discount Rate - 1%</b>	<b>Current Discount Rate</b>	<b>Discount Rate + 1%</b>
OPEB Liability	(2.87%)	(3.87%)	(4.87%)
PEMHCA	\$13,991	\$11,981	\$10,383
RHCAP	3,396	3,206	3,028
Retiree Death Benefit Only	1,605	1,485	1,377
<b>Total</b>	<b>\$18,992</b>	<b>\$16,672</b>	<b>\$14,788</b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

(14) **Other Post-Employment Benefits (Continued)**

**Sensitivity of OPEB Liability to Changes in the Healthcare Trend Rates (Continued)**

The following presents the OPEB liability, calculated using health care cost trend rates that are one percentage point lower or one percentage higher than the current rate for the measurement period ended June 30, 2018 (in thousands).

OPEB Liability	Healthcare Trend Rates -1%	Curent Healthcare Trend Rates	Healthcare Trend Rates +1%
PEMHCA	\$10,157	\$11,981	\$14,348
RHCAP	3,206	3,206	3,206
Retiree Death Benefit Only	1,485	1,485	1,485
<b>Total</b>	<b>\$14,848</b>	<b>\$16,672</b>	<b>\$19,039</b>

**Subsequent Events**

There were no subsequent events that would materially affect the results presented in this disclosure.

**Amortization of Deferred Outflows and Deferred Inflows of Resources**

Gains and losses related to changes in total OPEB liability is recognized in OPEB expense systematically over time.

The first amortized amounts are recognized in OPEB expense for the fiscal year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to OPEB and are to be recognized in future OPEB expense.

The amortization period differs depending on the source of the gain or loss. Straight line amortization over the expected average remaining service lifetime (EARSL) of all members that are provided with benefits (active and retired) as of the beginning of the measurement period is used for each Plan.

**OPEB Expense and Deferred Outflows and Deferred Inflows of Resources Related to OPEB**

For the fiscal year ended June 30, 2019, the District recognized OPEB expense of \$1.2 million which consisted of \$0.9 million for PEMHCA, \$0.3 million for RHCAP and \$0.03 million for Retiree Death Benefit Only.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(14) Other Post-Employment Benefits (Continued)**

**OPEB Expense and Deferred Outflows and Deferred Inflows of Resources Related to OPEB (Continued)**

At June 30, 2019, the District reported deferred outflows and deferred inflows of resources related to OPEB from the following sources (in thousands):

	<b>PEMHCA</b>	<b>RHCAP</b>	<b>Death Benefit Only</b>	<b>Total</b>
<b>Deferred Outflows of Resources:</b>				
OPEB Contributions made Subsequent to the Measurement Date	\$379	\$332	\$ 10	\$ 721
Changes in Assumptions	\$610	\$ 1	\$ 0	\$ 611
Difference between Expected and Actual Experience	\$851	\$113	\$ 0	\$ 964
<b>Deferred Inflows of Resources:</b>				
Changes in Assumptions	\$895	\$106	\$ 63	\$1,064
Difference between Expected and Actual Experience	\$ 0	\$ 0	\$132	\$ 132

The District has \$0.7 million reported as deferred outflows of resources related to employer contributions subsequent to the measurement date which will be recognized as a reduction of the OPEB liability in the fiscal year ending June 30, 2020. The District has \$0.4 million deferred outflows and deferred inflows of resources related to OPEB which will be recognized as OPEB expense as follows (in thousands):

<b>Fiscal Year</b>	<b>PEMHCA</b>	<b>RHCAP</b>	<b>Benefit Only</b>	<b>Total</b>
2020	\$ 32	(\$3)	(\$ 56)	(\$27)
2021	32	(3)	(56)	(27)
2022	32	(3)	(56)	(27)
2023	32	(3)	(27)	2
2024	32	(3)	0	29
Thereafter	406	23	0	429
<b>Total</b>	<b>\$566</b>	<b>\$ 8</b>	<b>(\$195)</b>	<b>\$379</b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(15) Deferred Compensation Plans**

**Retirement for Part Time Employees**

The District provides pension benefits for all of its part-time employees through a defined contribution plan, in lieu of providing social security benefits. In a defined contribution plan, benefits depend solely on amounts contributed to the plan plus investment earnings. The plan is administered as part of the District's Section 457 plan. All part-time and seasonal employees are eligible to participate from the date of employment. For the year ended June 30, 2019, the District's payroll covered by the plan was \$162,706. The District made no employer contributions. Employees contributed \$11,675 for the year ended June 30, 2019.

**Deferred Compensation**

All regular, full-time District employees are eligible to participate in the District's deferred compensation program pursuant to Section 457 of the Internal Revenue Code (Plan) whereby they can voluntarily contribute a portion of their earnings into a tax-deferred fund administered by the District and invested through a third party provider. Pursuant to the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), effective January 1, 2002, employees may contribute the lesser of 100% of includible compensation or the maximum dollar amount allowable under Internal Revenue Code Section 457 in effect for the year. The dollar amount currently in effect for calendar year 2019 is \$19,000.

Effective January 1, 2008, for employees with one year or more of services, the District provides 100% matching up to an annual maximum of 3% of the employee's base salary after one year of service. Such employer contribution amounts are deposited into a money purchase plan pursuant to Section 401(a) of the Internal Revenue Code. All full-time employees who have completed two years of regular, full-time service with the District, are eligible for an additional District contribution. Beginning with the first month following an employee's second anniversary date, the District will deposit to the employee's 401 (a) Plan account on a per-pay period basis an amount equal to 1% of the employee's base salary. During the fiscal year ended June 30, 2019, the District contributed \$1,090,432 to employee accounts under the 401(a) plan.

The assets in both plans are held in trust for the exclusive benefit of the participants and their beneficiaries, and are therefore not reported in the basic financial statements of the District.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2019  
(Continued)

**(16) Commitments and Contingencies**

**Legal Actions**

The District is a defendant in various legal actions arising out of the conduct of the District's operations. Management believes that, based on current knowledge, the outcome of these matters will not have a material adverse effect on the District's financial position.

**(17) Risk Management**

The District is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions, and natural disasters for which the District carries commercial insurance.

Property, Boiler and Machinery insurance is provided by the California State Association of Counties Excess Insurance Authority (CSAC-EIA). Property insurance includes flood insurance for all properties, and earthquake insurance for the District's real estate investment properties. General and excess liability coverage and workers compensation insurance are provided through participation in the CSAC-EIA. Pollution and legal liability coverage for the Irvine Desalter Project is provided by a policy with Chubb Insurance Company.

Liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported (IBNRs). The result of the process to estimate the claims liability is not an exact amount as it depends on many complex factors, such as inflation, changes in legal doctrines, and damage awards. Accordingly, claims are reevaluated periodically to consider the effects of inflation, recent claim settlement trends (including frequency and amount of payouts), and other economic and social factors. The estimate of the claims liability also includes amounts for incremental claim adjustment expenses related to specific claims and other claim adjustment expenses regardless of whether allocated to specific claims. Estimated recoveries, for example from salvage or subrogation, are another component of the claims liability estimate. Excess coverage insurance policies cover individual general liability claims in excess of \$100,000, property claims in excess of \$25,000 and workers compensation claims in excess of \$125,000.

Changes in the reported liability resulted from the following (in thousands):

<b>Fiscal Year</b>	<b>Liability Beginning of Year</b>	<b>Claims and Changes in Estimates</b>	<b>Claim Payments</b>	<b>Liability End of Year</b>	<b>Due within One Year</b>	<b>Due in more than One Year</b>
2018	\$1,426	\$157	(\$189)	\$1,394	\$448	\$946
2019	\$1,394	\$142	(\$19)	\$1,517	\$570	\$947

**Irvine Ranch Water District**  
Required Supplementary Information  
For the Fiscal Year Ended June 30, 2019

(1) **Defined Benefit Pension Plan – California Public Employees’ Retirement System**

**(a) Schedule of Changes in the Net Pension Liability and Related Ratio (in thousands) <sup>(1)</sup>**

	Measurement Date: June 30				
	2018	2017	2016	2015	2014
<b>Total Pension Liability</b>					
Service Cost	\$ 5,098	\$ 4,825	\$ 4,066	\$ 4,005	\$ 3,942
Interest	18,570	17,806	17,092	16,343	15,436
Changes of Assumptions	(1,605)	15,182	0	(4,127)	0
Difference between Expected and Actual Experience	(235)	(1,702)	(1,856)	530	0
Benefit Payments, Including Refunds of Employee Contributions	(10,770)	(9,721)	(9,089)	(8,365)	(7,631)
<b>Net Change in Total Pension Liability</b>	11,058	26,390	10,213	8,386	11,747
Total Pension Liability – Beginning	264,399	238,009	227,796	219,410	207,663
<b>Total Pension Liability – Ending (a)</b>	<b>\$275,457</b>	<b>\$264,399</b>	<b>\$238,009</b>	<b>\$227,796</b>	<b>\$219,410</b>
<b>Plan Fiduciary Net Position</b>					
Contributions – Employer	\$ 6,157	\$ 5,450	\$ 4,926	\$ 4,524	\$ 4,330
Contributions – Employees	2,401	2,280	2,519	2,170	2,712
Net Investment Income	16,707	20,205	946	4,049	26,787
Benefit Payments, Including Refunds of Employee Contributions	(10,770)	(9,721)	(9,089)	(8,365)	(7,632)
Administrative Expense	(308)	(265)	(110)	(208)	0
Other Miscellaneous Expense <sup>(2)</sup>	(585)	0	0	0	0
<b>Net Change in Fiduciary Net Position</b>	13,602	17,949	(808)	2,170	26,197
Plan Fiduciary Net Position – Beginning <sup>(3)</sup>	197,718	179,769	180,577	178,407	152,210
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>\$211,320</b>	<b>\$197,718</b>	<b>\$179,769</b>	<b>\$180,577</b>	<b>\$178,407</b>
<b>Plan Net Pension Liability – Ending (a) - (b)</b>	<b>\$ 64,137</b>	<b>\$ 66,681</b>	<b>\$ 58,240</b>	<b>\$ 47,219</b>	<b>\$ 41,003</b>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	76.72%	74.78%	75.53%	79.27%	81.31%
<b>Covered Payroll</b>	<b>\$ 32,213</b>	<b>\$ 30,823</b>	<b>\$ 28,802</b>	<b>\$ 27,596</b>	<b>\$ 26,264</b>
Plan Net Pension Liability as a Percentage of Covered Payroll	199.10%	216.33%	202.21%	171.11%	156.12%



**Irvine Ranch Water District**  
**Required Supplementary Information**  
**For the Fiscal Year Ended June 30, 2019**  
**(Continued)**

**(1) Defined Benefit Pension Plan – California Public Employees’ Retirement System (Continued)**

**(a) Schedule of Changes in the Net Pension Liability and Related Ratio (in thousands)**  
<sup>(1)</sup> **(Continued)**

- (1) Historical information is required only for measurement periods from which GASB 68 is applicable. Fiscal Year 2015 was the first year of GASB 68 implementation.
- (2) During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California’s agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).
- (3) Includes any beginning of year adjustment.

**Notes to Schedule of Changes in the Net Pension Liability and Related Ratio**

**Benefit Changes:** The figures above do not include any liability impact that may have resulted from plan changes which occurred after June 30, 2017. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit.

**Changes of Assumptions:** In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. In 2017, the discount rate reduced from 7.65 percent to 7.15 percent. In 2015, the discount rate was changed from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administration expense.) In 2014, the discount rate was 7.5 percent.

**(b) Schedule of Contributions (in thousands)** <sup>(1)</sup>

	Fiscal Year Ended June 30				
	2019	2018	2017	2016	2015
Actuarially Determined Contribution <sup>(2)</sup>	\$ 7,184	\$ 6,157	\$ 5,450	\$ 4,926	\$ 4,524
Contributions in Relation to the Actuarially Determined Contribution <sup>(2)</sup>	(7,184)	(6,157)	(5,450)	(4,926)	(4,524)
<b>Contribution Deficiency (Excess)</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Covered Payroll</b> <sup>(3)</sup>	<b>\$32,700</b>	<b>\$32,213</b>	<b>\$30,823</b>	<b>\$28,802</b>	<b>\$27,596</b>
Contributions as a Percentage of Covered Payroll <sup>(3)</sup>	21.97%	19.11%	17.68%	17.10%	16.39%

**Irvine Ranch Water District**  
**Required Supplementary Information**  
**For the Fiscal Year Ended June 30, 2019**  
**(Continued)**

**(1) Defined Benefit Pension Plan – California Public Employees’ Retirement System (Continued)**

**(b) Schedule of Contributions (in thousands) <sup>(1)</sup>(Continued)**

- (1) Historical information is required only for measurement periods from which GASB 68 is applicable. Fiscal Year 2015 was the first year of GASB 68 implementation.
- (2) Employers are assumed to make contributions equal to the actuarially determined contributions. However, some employers may choose to make additional contributions towards their unfunded liability. Employer contributions for such plans exceed the actuarially determined contributions.
- (3) Included one year’s payroll growth using 2.75 percent payroll assumptions for fiscal year ended June 30, 2018; 3.00 percent payroll assumptions for fiscal years ended June 30, 2014-17.

**Notes to Schedule of Contributions**

The actuarial methods and assumptions used to set the actuarially determined contributions for the fiscal year ended June 30, 2019 were from the June 30, 2016 public agency valuations.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	Level Percent of Payroll
Asset Valuation Method	Market Value of Assets
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment Rate of Return	7.375% Net of Pension Plan Investment and Administrative Expenses; includes Inflation
Retirement Age	The probabilities of Retirement are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011.
Mortality	The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries.

On December 21, 2016, the CalPERS Board of Administration lowered the discount rate from 7.50 percent to 7.00 percent using a three year phase-in beginning with the June 30, 2016 actuarial valuations. The minimum employer contributions for Fiscal Year 2018-19 were calculated using a discount rate of 7.375 percent.

**Irvine Ranch Water District**  
 Required Supplementary Information  
 For the Fiscal Year Ended June 30, 2019  
 (Continued)

(2) **Other Post-Employment Benefits**

**Schedule of Changes in the OPEB Liability and Related Ratio (in thousands)<sup>(1)</sup>**

<b>PEMHCA</b>		
Measurement Date: June 30	2018	2017
Service Cost	\$ 472	\$ 549
Interest	364	310
Changes of Assumptions	682	(1,173)
Difference between Expected and Actual Experience	951	0
Benefit Payments	(343)	(304)
<b>Net Change in Total OPEB Liability</b>	<b>\$ 2,126</b>	<b>\$ (618)</b>
Total OPEB Liability – Beginning	9,855	10,473
<b>Total OPEB Liability – Ending</b>	<b>\$11,981</b>	<b>\$ 9,855</b>
<b>Covered-Employee Payroll</b>	<b>\$35,629</b>	<b>\$30,823</b>
OPEB Liability as a Percentage of Covered-Employee Payroll	33.63%	31.97%

<b>RHCAP</b>		
Measurement Date: June 30	2018	2017
Service Cost	\$ 148	\$ 161
Interest	112	94
Changes of Assumptions	1	(136)
Difference between Expected and Actual Experience	125	0
Benefit Payments	(306)	(286)
<b>Net Change in Total OPEB Liability</b>	<b>\$ 80</b>	<b>\$ (167)</b>
Total OPEB Liability – Beginning	3,126	3,293
<b>Total OPEB Liability – Ending</b>	<b>\$ 3,206</b>	<b>\$ 3,126</b>
<b>Covered-Employee Payroll</b>	<b>\$35,629</b>	<b>\$30,823</b>
OPEB Liability as a Percentage of Covered-Employee Payroll	9.00%	10.14%

**Irvine Ranch Water District**  
 Required Supplementary Information  
 For the Fiscal Year Ended June 30, 2019  
 (Continued)

(2) **Other Post-Employment Benefits (Continued)**

(a) **Schedule of Changes in the OPEB Liability and Related Ratio (in thousands)<sup>(1)</sup>**  
 (Continued)

<b>Retiree Death Benefit Only</b>		
Measurement Date: June 30	2018	2017
Service Cost	\$ 28	\$ 32
Interest	58	47
Changes of Assumptions	(10)	(92)
Difference between Expected and Actual Experience	(168)	0
Benefit Payments	(20)	(10)
<b>Net Change in Total OPEB Liability</b>	<b>(112)</b>	<b>(23)</b>
Total OPEB Liability – Beginning	1,597	1,620
<b>Total OPEB Liability – Ending</b>	<b>\$ 1,485</b>	<b>\$ 1,597</b>
<b>Covered -Employee Payroll</b>	<b>\$19,775</b>	<b>\$16,028</b>
OPEB Liability as a Percentage of Covered-Employee Payroll	7.51%	9.96%

<sup>(1)</sup>Historical information is required only for measurement periods from which GASB 75 is applicable. Fiscal Year 2018 was the first year of GASB 75 implementation.

**Irvine Ranch Water District**  
 Required Supplementary Information  
 For the Fiscal Year Ended June 30, 2019  
 (Continued)

(2) **Other Post-Employment Benefits (Continued)**

(a) **Schedule of Changes in the OPEB Liability and Related Ratio (in thousands)<sup>(1)</sup>**  
**(Continued)**

**Notes to Schedule of Changes in the OPEB Liability and Related Ratio**

**Changes of Assumptions:** In 2018, the changes of assumptions were as follows:

PEMHCA	RHCAP	Retiree Death Benefit Only
Discount rate was increased from 3.581% to 3.87% based on municipal bond rate as of the measurement date.		
Demographic assumptions were updated to CalPERS 1997-2015 Experience Study. Mortality improvement scale was updated to Scale MP-2018.		
Medical claims costs were developed by Axene Health Partners based on demographic data for the CalPERS health plans provided by CalPERS and Axene's proprietary AHP Cost Model.	Not Applicable	
Short term medical trend was developed in consultation with Axene Health Partners' healthcare actuaries. Long-term medical trend developed using the Society of Actuaries Getzen Model of Long-Run Medical Cost Trends.	Not Applicable	
Participation at retirement for medical coverage was updated to 70% if eligible for RHCAP.	Not Applicable	
A 2% load on the cash liability was added to estimate the ACA Excise Tax.	Not Applicable	

In 2017, the discount rate increased from 2.85 percent to 3.581 percent.

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# Statistical Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2019

This section of the Irvine Ranch Water District's Comprehensive Annual Financial Report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the District's overall financial health.

Financial Trends Schedules – These schedules contain trend information to help the reader understand how the District's financial performance and well-being have changed over time.

- Net Position
- Changes in Net Position

Revenue Capacity Schedules – These schedules contain information to help the reader assess the factors affecting the District's ability to generate its property and sales taxes.

- Water Sold by Type of Customer
- Water Rates
- Largest Water Customers
- Sewer Rates
- Largest Sewer Customers
- Ad Valorem Property Tax Rates

Debt Capacity Schedules – These schedules present information to help the reader assess the affordability of the District's current levels of outstanding debt and the District's ability to issue additional debt in the future.

- Assessed Valuation and Estimated Actual Value of Taxable Property and 1% Property Tax Revenue
- Direct and Overlapping Property Tax Rates
- Principal Property Taxpayers
- Property Tax Collections/Delinquency
- Outstanding Debt by Type
- Outstanding General Obligation Bonds by Improvement District
- Ratio of General Obligation Debt to Assessed Values
- Ratio of Annual Debt Service Expenditures to Total General Expenditures
- Debt Service Coverage



Demographic and Economic Information – These schedules offer demographic and economic indicators to help the reader understand the environment within which the District’s financial activities take place and to help make comparisons over time and with other governments.

Principal Employers  
Demographic and Economic Statistics

Operating Information – These schedules contain information about the District’s operations and resources to help the reader understand how the District’s financial information relates to the services the District provides and the activities it performs.

Operating Indicators by Function – Water and Sewer Service Connections  
Operating Indicators by Function – New Service Connections  
Operating Indicators by Function – Average Monthly Usage  
Source of Supply and Demand in Acre Feet  
Capital Asset Statistics  
Full-Time Employees

**Irvine Ranch Water District**  
**Net Position**  
**For the Past Ten Fiscal Years**  
(in millions)

	<b>Fiscal Year</b>				
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013 <sup>(1)</sup></b>	<b>2014 <sup>(1)</sup></b>
<b>Assets</b>					
Current and other assets	\$1,172.3	\$1,300.0	\$1,167.0	\$1,128.2	\$ 462.7
Capital assets	1,396.6	1,430.3	1,508.8	1,506.1	1,567.5
<b>Total assets</b>	<b>2,568.9</b>	<b>2,730.3</b>	<b>2,675.8</b>	<b>2,634.3</b>	<b>2,030.2</b>
<b>Deferred Outflows of Resources</b>	<b>37.4</b>	<b>32.7</b>	<b>53.0</b>	<b>47.3</b>	<b>37.7</b>
<b>Liabilities</b>					
Current and other liabilities	67.3	97.7	99.0	672.7	54.9
Long-term liabilities	1,204.3	1,323.7	1,281.8	647.7	623.4
<b>Total liabilities</b>	<b>1,271.6</b>	<b>1,421.4</b>	<b>1,380.8</b>	<b>1,320.4</b>	<b>678.3</b>
<b>Deferred Inflows of Resources</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Net Position</b>					
Net investment in capital assets	929.5	900.6	943.1	918.1	981.3
Restricted for water services	249.8	213.6	179.3	185.4	165.1
Restricted for sewer services	155.4	227.4	225.6	257.7	243.2
<b>Total net position</b>	<b>\$1,334.7</b>	<b>\$1,341.6</b>	<b>\$1,348.0</b>	<b>\$1,361.2</b>	<b>\$1,389.6</b>

**Irvine Ranch Water District**  
**Net Position**  
**For the Past Ten Fiscal Years**

(in millions)  
(Continued)

	Fiscal Year				
	2015 <sup>(2)</sup>	2016 <sup>(3)</sup>	2017 <sup>(4)</sup>	2018 <sup>(5)</sup>	2019
<b>Assets</b>					
Current and other assets	\$ 332.9	\$ 456.6	\$ 735.1	\$ 797.4	\$ 803.9
Capital assets	1,647.4	1,731.6	1,848.3	1,890.8	1,958.7
<b>Total assets</b>	<b>1,980.3</b>	<b>2,188.2</b>	<b>2,583.4</b>	<b>2,688.2</b>	<b>2,762.6</b>
<b>Deferred Outflows of Resources</b>	43.3	49.7	61.6	41.7	41.2
<b>Liabilities</b>					
Current and other liabilities	51.5	65.4	78.5	52.5	53.8
Long-term liabilities	602.8	589.8	790.9	831.7	817.4
<b>Total liabilities</b>	<b>654.3</b>	<b>655.2</b>	<b>869.4</b>	<b>884.2</b>	<b>871.2</b>
<b>Deferred Inflows of Resources</b>	14.6	4.4	3.6	4.8	4.5
<b>Net Position</b>					
Net investment in capital assets	1,074.6	1,178.5	1,087.9	1,155.5	1,238.8
Restricted for water services	148.6	221.5	264.3	289.5	313.0
Restricted for sewer services	131.5	178.3	419.8	395.9	376.2
<b>Total net position</b>	<b>\$1,354.7</b>	<b>\$1,578.3</b>	<b>\$1,772.0</b>	<b>\$1,840.9</b>	<b>\$1,928.0</b>

**Source:** Irvine Ranch Water District Basic Financial Statements

**Notes:**

- <sup>(1)</sup> The District implemented GASB Statement No. 65 for the fiscal year ended June 30, 2014 and restated the financial statements for the fiscal year ended June 30, 2013.
- <sup>(2)</sup> The District implemented GASB Statement Nos. 68 and 71 for the fiscal year ended June 30, 2015. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.
- <sup>(3)</sup> The District implemented GASB Statement No. 72 for the fiscal year ended June 30, 2016. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.
- <sup>(4)</sup> The prior period adjustment for the fiscal year ended June 30, 2017 was related to the reclassification of certain assets from capital assets to real estate investments. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.
- <sup>(5)</sup> The District implemented GASB Implementation Guide No. 2017-1 and GASB Statement No. 75 for the fiscal year ended June 30, 2018. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.

**Irvine Ranch Water District**  
**Changes in Net Position**  
**For the Past Ten Fiscal Years**  
(in thousands)

	Fiscal Year				
	2010	2011	2012	2013	2014
<b>Operating Revenues</b>					
Water sales and service charges	\$ 51,268	\$ 54,796	\$ 57,558	\$ 62,565	\$ 66,321
Sewer sales and service charges	45,344	45,375	49,234	53,085	58,109
<b>Total operating revenues</b>	<b>96,612</b>	<b>100,171</b>	<b>106,792</b>	<b>115,650</b>	<b>124,430</b>
<b>Operating Expenses</b>					
Water					
Water services	43,591	45,961	44,883	51,163	57,624
General and administrative	13,349	12,327	12,305	14,619	13,660
Sewer					
Sewer services	30,992	33,382	33,086	38,189	37,715
General and administrative	6,651	6,569	7,792	8,048	8,612
Depreciation	39,444	43,592	41,378	47,539	46,809
<b>Total operating expenses</b>	<b>134,027</b>	<b>141,831</b>	<b>139,444</b>	<b>159,558</b>	<b>164,420</b>
Operating income (loss)	(37,415)	(41,660)	(32,652)	(43,908)	(39,990)
<b>Nonoperating Revenues (Expenses)</b>					
Property taxes	38,392	38,679	38,062	41,068	42,751
Investment income	2,191	2,599	3,132	224	1,079
Increase (decrease) in fair value of investments	(7,782)	(20,172)	(23,586)	(29,180)	(16,177)
JPA investment income	55,726	53,708	51,530	49,178	29,522
Real estate income	9,701	9,719	11,039	10,789	11,899
Increase (decrease) in fair value of real estate investments	0	0	0	0	0
Pension benefits trust interest and dividends income	0	0	0	0	0
Increase (decrease) in fair value of pension benefits trust investments	0	0	0	0	0
Other income	10,706	7,987	6,141	8,323	10,974
Interest expense	(9,962)	(14,174)	(16,924)	(16,770)	(15,836)
JPA interest expense	(51,530)	(41,264)	(39,603)	(28,884)	(17,166)
Real estate expense	(6,186)	(6,004)	(6,016)	(6,047)	(6,139)
Pension benefits trust expense	0	0	0	0	0
Other expenses	(1,286)	(989)	(10,713)	(6,110)	(7,163)
<b>Total nonoperating revenue (expenses)</b>	<b>39,970</b>	<b>30,089</b>	<b>13,062</b>	<b>22,591</b>	<b>33,744</b>
Income (loss) before capital contributions	2,555	(11,571)	(19,590)	(21,317)	(6,246)
Contributed capital assets	17,963	18,506	25,948	34,535	34,684
<b>Increase (decrease) in net position</b>	<b>20,518</b>	<b>6,935</b>	<b>6,358</b>	<b>13,218</b>	<b>28,438</b>
Net position at beginning of year	1,357,046	1,334,666	1,341,601	1,347,959	1,361,177
Prior period adjustments	(42,898)	0	0	0	0
<b>Net position at end of year</b>	<b>\$1,334,666</b>	<b>\$1,341,601</b>	<b>\$1,347,959</b>	<b>\$1,361,177</b>	<b>\$1,389,615</b>

**Irvine Ranch Water District**  
**Changes in Net Position**  
**For the Past Ten Fiscal Years**

(in thousands)

(Continued)

	Fiscal Year				
	2015 <sup>(1)</sup>	2016 <sup>(2)</sup>	2017 <sup>(3)</sup>	2018 <sup>(4)</sup>	2019
<b>Operating Revenues</b>					
Water sales and service charges	\$ 70,110	\$ 76,692	\$ 77,252	\$ 84,575	\$ 94,107
Sewer sales and service charges	62,808	67,682	72,054	76,789	76,841
<b>Total operating revenues</b>	<b>132,918</b>	<b>144,374</b>	<b>149,306</b>	<b>161,364</b>	<b>170,948</b>
<b>Operating Expenses</b>					
Water					
Water services	57,978	57,499	55,296	63,671	64,004
General and administrative	9,319	11,827	15,906	20,554	19,860
Sewer					
Sewer services	54,575	40,413	42,752	38,115	43,734
General and administrative	5,826	7,625	9,059	12,332	15,786
Depreciation	51,015	58,330	61,841	63,877	64,835
<b>Total operating expenses</b>	<b>178,713</b>	<b>175,694</b>	<b>184,854</b>	<b>198,549</b>	<b>208,219</b>
Operating income (loss)	(45,795)	(31,320)	(35,548)	(37,185)	(37,271)
<b>Nonoperating Revenues (Expenses)</b>					
Property taxes	42,431	46,303	51,321	57,247	63,057
Investment income	1,214	1,249	2,843	4,133	6,199
Increase (decrease) in fair value of investments	(28)	(32)	(1,624)	(1,571)	5,188
JPA investment income	0	0	0	0	0
Real estate income	12,518	13,056	13,434	16,689	17,813
Increase (decrease) in fair value of real estate investments	0	5,597	10,084	4,091	6,095
Pension benefits trust interest and dividends income	0	0	0	3,003	2,140
Increase (decrease) in fair value of pension benefits trust investments	0	0	0	2,173	3,196
Other income	7,899	7,837	7,117	7,504	8,876
Interest expense	(13,903)	(15,415)	(18,784)	(26,034)	(25,481)
JPA interest expense	0	0	0	0	0
Real estate expense	(6,251)	(4,363)	(4,358)	(13,284)	(9,441)
Pension benefits trust expense	0	0	0	(51)	(53)
Other expenses	(9,752)	(2,800)	(1,997)	(174)	(2,615)
<b>Total nonoperating revenue (expenses)</b>	<b>34,128</b>	<b>51,432</b>	<b>58,036</b>	<b>53,726</b>	<b>74,974</b>
Income (loss) before capital contributions	(11,667)	20,112	22,488	16,541	37,703
Contributed capital assets	42,540	53,278	41,913	60,588	49,346
<b>Increase (decrease) in net position</b>	<b>30,873</b>	<b>73,390</b>	<b>64,401</b>	<b>77,129</b>	<b>87,049</b>
Net position at beginning of year	1,389,615	1,354,663	1,578,311	1,772,014	1,840,953
Prior period adjustments	(65,825)	150,258	129,302	(8,190)	0
<b>Net position at end of year</b>	<b>\$1,354,663</b>	<b>\$1,578,311</b>	<b>\$1,772,014</b>	<b>\$1,840,953</b>	<b>\$1,928,002</b>

Source: IRWD Basic Financial Statements

**Notes:**

- <sup>(1)</sup> The District implemented GASB Statement Nos. 68 and 71 for the fiscal year ended June 30, 2015. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.
- <sup>(2)</sup> The District implemented GASB Statement No 72 for the fiscal years ended June 30, 2016 and 2017. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.
- <sup>(3)</sup> The prior period adjustment for the fiscal year ended June 30, 2017 was related to the reclassification of certain assets from capital assets to real estate investments. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.
- <sup>(4)</sup> The District implemented GASB Implementation Guide No. 2017-1 and GASB Statement No. 75 for the fiscal year ended June 30, 2018. The District did not restate the prior years' financial statements because the data for the prior years was not readily available.

**Irvine Ranch Water District**  
 Water Sold By Type of Customer (in Acre Feet)  
 For the Past Ten Fiscal Years

	Fiscal Year				
	2010	2011	2012	2013	2014
Residential	31,721	31,127	32,262	33,166	34,068
Commercial	7,586	7,632	8,021	8,353	8,803
Industrial	4,711	4,733	4,713	4,783	4,891
Public Authority	2,293	2,305	2,373	2,458	2,458
Construction & Temporary	127	174	275	378	739
Landscape	4,712	4,252	4,741	5,316	5,671
Agricultural	5,234	3,208	2,433	2,749	3,277
Landscape/Agricultural	20,951	20,147	25,011	28,259	30,021
<b>Total</b>	<b>77,335</b>	<b>73,578</b>	<b>79,829</b>	<b>85,462</b>	<b>89,928</b>

	Fiscal Year				
	2015	2016	2017	2018	2019
Residential	32,375	28,573	30,384	32,848	31,642
Commercial	8,391	8,377	8,179	8,769	8,624
Industrial	6,233	5,118	5,084	4,923	4,831
Public Authority	2,583	2,234	2,282	2,193	2,073
Construction & Temporary	863	1,230	874	1,292	541
Landscape	5,327	3,843	4,126	4,740	4,065
Agricultural	2,547	2,216	1,856	1,839	1,114
Landscape/Agricultural	32,139	26,386	26,374	29,736	26,153
<b>Total</b>	<b>90,458</b>	<b>77,977</b>	<b>79,159</b>	<b>86,340</b>	<b>79,043</b>

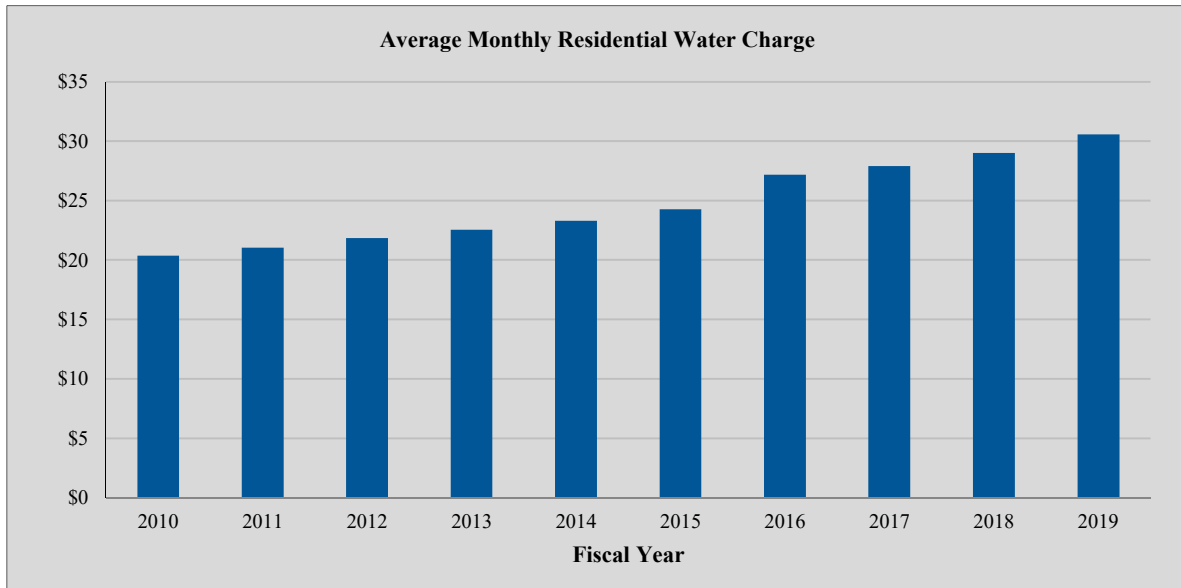
**Source:** Irvine Ranch Water District

## Irvine Ranch Water District

### Water Rates <sup>(1)</sup>

For the Past Ten Fiscal Years

Fiscal Year	Fixed Service Charge	Commodity Rate (per ccf)	Average Monthly Residential Charge
2010	\$7.75	\$1.15	\$20.35
2011	8.00	1.21	21.02
2012	8.75	1.22	21.84
2013	9.30	1.24	22.53
2014	9.85	1.27	23.29
2015	10.50	1.34	24.28
2016	10.30	1.62	27.19
2017	10.30	1.65	27.90
2018	10.30	1.70	29.00
2019	10.35	1.89	30.58



**Source:** Irvine Ranch Water District

**Note:**

<sup>(1)</sup> The water charge to the average residential customer is based upon 12 ccf per month.

The first 5 ccf are at the District's low volume rate, which is less than the commodity base rate. The fixed monthly service charge includes components to add enhancement and replacement funds to assist with the District's aging infrastructure.

**Irvine Ranch Water District**  
Largest Water Customers  
Current Year and Nine Years Ago

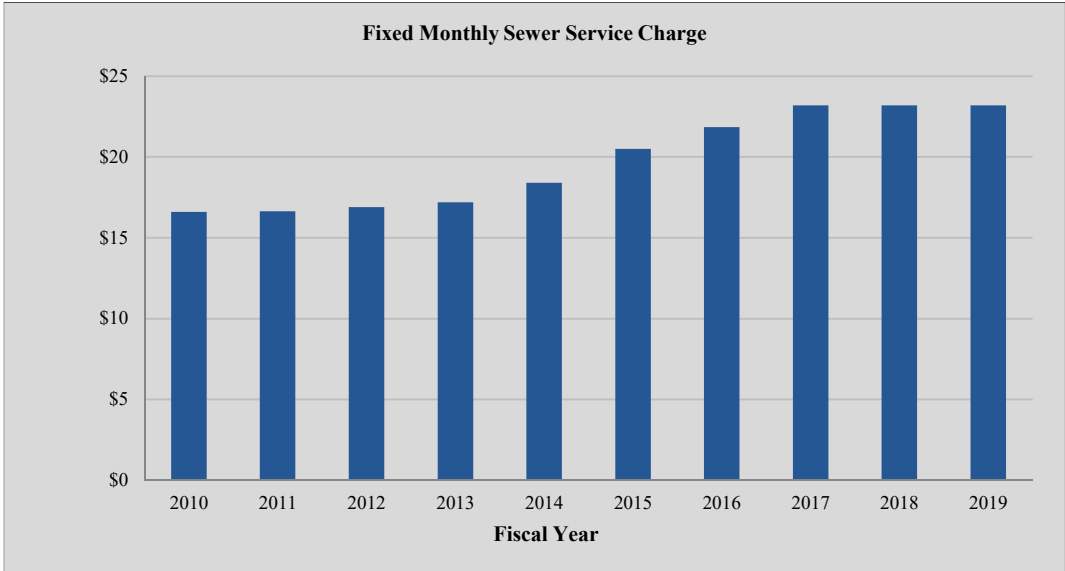
Customer Name	2019			2010		
	Total Sales	Rank	Percentage of Water Sales Revenues	Total Sales	Rank	Percentage of Water Sales Revenues
The Irvine Company	\$ 7,451,673	1	8.38%			
University of California - Irvine	1,385,199	2	1.56%	\$ 1,485,554	4	2.90%
Jazz Semiconductor	1,210,411	3	1.36%	667,649	5	1.30%
B Braun Medical, Inc	1,045,000	4	1.18%	520,961	7	1.02%
Woodbridge Village Association	590,810	5	0.66%	438,228	10	0.85%
City of Irvine	391,077	6	0.44%	1,655,368	3	3.23%
City of Lake Forest	342,143	7	0.38%			
Allergan Sales, LLC	281,375	8	0.32%			
Irvine Unified School District	264,337	9	0.30%	499,635	8	0.97%
Maruchan, Inc	259,686	10	0.29%			
TIC-Irvine Apartment Communities				3,613,332	1	7.05%
The Irvine Company - Agricultural Division				1,934,706	2	3.77%
The Irvine Company - Spectrum Office				626,393	6	1.22%
Hines Nurseries				472,390	9	0.92%
<b>Total</b>	<b>\$13,221,712</b>		<b>14.87%</b>	<b>\$11,914,216</b>		<b>23.23%</b>

**Source:** Irvine Ranch Water District



**Irvine Ranch Water District**  
**Sewer Rates<sup>(1)</sup>**  
**For the Past Ten Fiscal Years**

<b>Fiscal Year</b>	<b>Fixed Monthly Service Charge</b>
2010	\$16.60
2011	16.65
2012	16.90
2013	17.20
2014	18.40
2015	20.50
2016	21.85
2017	23.20
2018	23.20
2019	23.20



**Source:** Irvine Ranch Water District

**Note:**

<sup>(1)</sup> The fixed monthly service charge assumes the three lowest months of usage fall below 10 ccf's and it includes components to add enhancement and replacement funds to assist with the District's aging infrastructure.

**Irvine Ranch Water District**  
 Largest Sewer Customers  
 Current Year and Nine Years Ago

Customer Name	2019			2010		
	Total Sales	Rank	Percentage of Sewer Sales Revenues	Total Sales	Rank	Percentage of Sewer Sales Revenues
The Irvine Company	\$11,932,092	1	15.53%			
University of California - Irvine	2,256,337	2	2.94%	\$1,011,420	2	2.23%
City of Irvine	2,202,981	3	2.87%			
B Braun Medical, Inc	858,955	4	1.12%	431,368	3	0.95%
Irvine Unified School District	657,418	5	0.86%			
ERP Operating, LP	351,201	6	0.46%	187,388	8	0.41%
Crystal Cove Community Assn	349,178	7	0.45%			
Allergan Sales, LLC	344,890	8	0.45%	241,434	4	0.53%
Maruchan, Inc	338,045	9	0.44%	222,382	6	0.49%
Woodbridge Village Assn	318,598	10	0.41%			
TIC-Irvine Apartment Communities				3,399,070	1	7.50%
Royal Carpet Mills				241,048	5	0.53%
The Irvine Company - Spectrum Office				197,071	7	0.43%
Oakley Technical Center				159,619	9	0.35%
Teva Parenteral Medicines				146,413	10	0.32%
<b>Total</b>	<b>\$19,609,695</b>		<b>25.53%</b>	<b>\$6,237,213</b>		<b>13.74%</b>

Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
**Ad Valorem Property Tax Rates<sup>(1)</sup>**  
**For the Past Ten Fiscal Years**

Improvement District	Fiscal Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
112	\$0.07920	\$0.07920	\$0.03168	\$0.03168	\$0.03168	\$0.03000	\$0.03000	\$0.03000	\$0.03000	\$0.03000
113	0.01980	0.01980	0.05940	0.05940	0.05940	0.03000	0.03000	0.04000	0.04000	0.04000
120	0.01311	0.00001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
121	0.00001	0.01311	0.01311	0.01311	0.01311	N/A	N/A	N/A	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	0.01300	0.01300	0.01300	0.01300	0.01300
130	0.00680	0.00680	0.00680	0.00680	0.00680	N/A	N/A	N/A	N/A	N/A
135	0.00842	0.00842	0.00421	0.00421	0.00421	N/A	N/A	N/A	N/A	N/A
140	0.00001	0.00001	0.01000	0.01000	0.01000	N/A	N/A	N/A	N/A	N/A
150	0.00990	0.00990	0.01980	0.01980	0.01980	N/A	N/A	N/A	N/A	N/A
153	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001	0.00001	0.02000	0.02000
160	0.01758	0.00001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
161	0.00001	0.01758	0.01758	0.01758	0.01758	N/A	N/A	N/A	N/A	N/A
182	0.01350	0.01350	0.02700	0.02700	0.02700	N/A	N/A	N/A	N/A	N/A
184	0.00001	0.00001	0.01350	0.01350	0.01350	N/A	N/A	N/A	N/A	N/A
185	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001	0.00001	0.02300	0.02300
186	0.03191	0.03191	0.04787	0.04787	0.04787	N/A	N/A	N/A	N/A	N/A
188	0.03590	0.03590	0.21540	0.21540	0.21540	0.21540	0.21540	0.21540	0.07350	0.07350
190	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
210	0.00001	0.00001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
212	0.12420	0.12420	0.07452	0.07452	0.07452	0.04500	0.04500	0.04500	0.04500	0.04500
213	0.14533	0.14533	0.08720	0.08720	0.08720	0.03800	0.03800	0.05900	0.05900	0.05900
220	0.01800	0.00001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
221	0.00001	0.01800	0.01700	0.01700	0.01700	N/A	N/A	N/A	N/A	N/A
225	N/A	N/A	N/A	N/A	N/A	0.01500	0.01500	0.01500	0.01500	0.01500
230	0.02200	0.02200	0.02200	0.02200	0.02200	N/A	N/A	N/A	N/A	N/A
235	0.00532	0.00532	0.00266	0.00266	0.00266	N/A	N/A	N/A	N/A	N/A
240	0.03140	0.03140	0.02140	0.02140	0.02140	0.01500	0.01500	0.01500	0.01500	0.01500
250	0.03600	0.03600	0.03600	0.03600	0.03600	N/A	N/A	N/A	N/A	N/A
252	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
253	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001	0.00001	0.02100	0.02100
260	0.02830	0.00001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
261	0.00001	0.02830	0.02830	0.02830	0.02830	N/A	N/A	N/A	N/A	N/A
282	0.01890	0.01890	0.01890	0.01890	0.01890	N/A	N/A	N/A	N/A	N/A
284	0.03239	0.03239	0.03239	0.03239	0.03239	N/A	N/A	N/A	N/A	N/A
285	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001	0.00001	0.03050	0.03050
286	N/A	0.00001	0.00201	0.00201	0.00201	N/A	N/A	N/A	N/A	N/A
288	N/A	0.00001	0.01000	0.01000	0.01000	0.01000	0.01000	0.01000	0.01000	0.01000
290	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: Irvine Ranch Water District

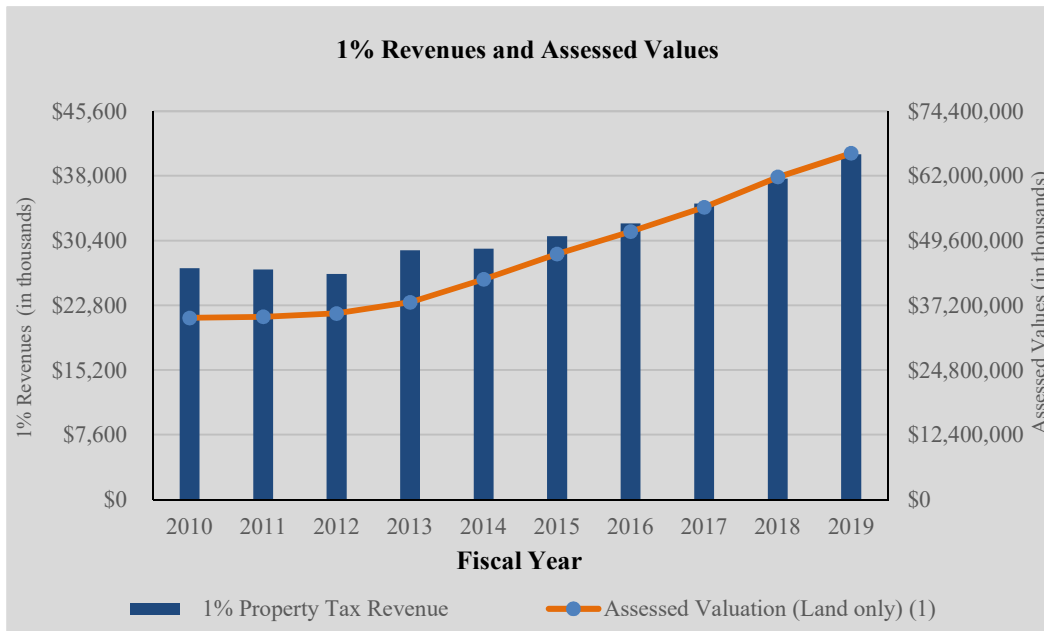
**Notes:**

(1) The ad valorem property tax rates for the consolidated improvement districts are effective July 1, 2014.

## Irvine Ranch Water District

### Assessed Valuation and Estimated Actual Value of Taxable Property and 1% Property Tax Revenue For the Past Ten Fiscal Years (in thousands)

Fiscal Year	Assessed Valuation (Land only) <sup>(1)</sup>	1% Property Tax Revenue
2010	\$ 34,818,153	\$ 27,150 <sup>(2)</sup>
2011	35,008,276	26,989
2012	35,661,242	26,478
2013	37,809,660	29,265
2014	42,205,844	29,445
2015	47,059,437	30,924
2016	51,340,888	32,427
2017	56,028,731	34,761
2018	61,803,980	37,693
2019	66,341,210	40,543



**Source:** Orange County Auditor-Controller and Orange County Tax Collector.

**Notes:**

<sup>(1)</sup> Estimated market values for the land-only Assessed Values are not available.

<sup>(2)</sup> Of this amount, the State of California borrowed \$2.0 million, which was repaid in June 2013.

*In 1978, the voters of the State of California passed Proposition 13 which limited property taxes to a total maximum rate of 1% based upon the assessed value of the property being taxed. Each year, the assessed value of property may be increased by an "inflation factor" (limited to a maximum increase of 2%). With few exceptions, property is only reassessed at the time that it is sold to a new owner. At that point, the new value is reassessed at the purchase price of the property sold.*

**Irvine Ranch Water District**  
 Direct and Overlapping Property Tax Rates  
 Fiscal Year Ended June 30, 2019

Direct Rate:

Irvine Ranch Water District I.D. No. 112	\$0.03000
Irvine Ranch Water District I.D. No. 113	0.04000
Irvine Ranch Water District I.D. No. 125	0.01300
Irvine Ranch Water District I.D. No. 153	0.02000
Irvine Ranch Water District I.D. No. 185	0.02300
Irvine Ranch Water District I.D. No. 188	0.07350
Irvine Ranch Water District I.D. No. 212	0.04500
Irvine Ranch Water District I.D. No. 213	0.05900
Irvine Ranch Water District I.D. No. 225	0.01500
Irvine Ranch Water District I.D. No. 240	0.01500
Irvine Ranch Water District I.D. No. 252	0.00001
Irvine Ranch Water District I.D. No. 253	0.02100
Irvine Ranch Water District I.D. No. 285	0.03050
Irvine Ranch Water District I.D. No. 288	0.01000

Overlapping Rates:

School Districts:

Coast Community College District	0.03052
Rancho Santiago Community College District	0.02875
Rancho Santiago Community College District SFID 1	0.01662
Irvine Unified School District SFID No. 1	0.02804
Laguna Beach Unified School District	0.01285
Newport Mesa Unified School District	0.01682
Saddleback Valley Unified School District	0.02392
Santa Ana Unified School District	0.05561
Tustin Unified School District SFID 2002-1	0.02087
Tustin Unified School District SFID 2008-1	0.02994
Tustin Unified School District SFID 2012-1	0.01606

Source: California Municipal Statistics, Inc.

**Irvine Ranch Water District**  
Principal Property Taxpayers  
Fiscal Year Ended June 30, 2019

<b>Property Owner's Name</b>	<b>Type of Business</b>	<b>Assessed Valuation of Property, including Land &amp; Improvements</b>	<b>Percentage of Total City Taxable Assessed Value</b>
The Irvine Company	Developer/Real Estate	\$3,638,914,778	5.10%
Irvine Apartment Communities	Real Estate	490,974,183	0.69%
Allergan	Pharmaceutical (R&D/Marketing)	473,025,829	0.66%
Jamboree Center LLC	Developer/Real Estate	402,676,027	0.56%
Park Place Michelson LLC	Real Estate	380,767,695	0.53%
B Braun Medical Inc.	Bio-Medical Manufacturing	359,759,461	0.50%
Heritage Fields El Toro	Developer/Real Estate	343,675,342	0.48%
Calatlantic Group Inc	Home Builder	318,302,991	0.45%
LBA IV-PPI LLC	Real Estate Investment and Management	313,541,491	0.44%
Hancock S-Reit Irvine Corporation	Real Estate	281,519,999	0.39%
		<b>\$7,003,157,796</b>	<b>9.80%</b>

**Source:** City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2018).  
Data was not yet available for FY 2018/19 from the City of Irvine.  
The City of Irvine is only a part of the IRWD service area.

**Irvine Ranch Water District**  
**Property Tax Collections/Delinquency**  
**For the Past Ten Fiscal Years**

<b>Fiscal Year</b>	<b>Levied During Fiscal Year</b>		<b>Collected During Fiscal Year</b>	
	<b>1 Percent <sup>(1)</sup></b>	<b>General <sup>(2)</sup></b>	<b>1 Percent</b>	<b>General <sup>(3)</sup></b>
2010	\$ 24,166,600	\$ 10,503,249	\$ 23,636,793	\$ 10,802,992
2011	26,493,900	10,323,198	25,892,653	11,180,391
2012	26,749,900	10,558,510	25,953,788	11,716,056
2013	26,749,900	10,733,998	29,265,283	11,802,915
2014	26,749,900	11,374,556	27,606,048	12,463,175
2015	29,000,000	9,203,641	28,668,756	9,585,904
2016	31,900,000	11,133,538	31,115,506	10,879,713
2017	33,500,000	11,679,081	33,318,168	12,822,313
2018	35,000,000	13,964,731	35,977,694	15,482,916
2019	39,000,000	16,142,433	38,717,848	17,906,438
<b>Total</b>	<b>\$299,310,200</b>	<b>\$115,616,935</b>	<b>\$300,152,536</b>	<b>\$124,642,813</b>

<b>Fiscal Year</b>	<b>Percentage Collected</b>		<b>Amount of Levy Collected in Subsequent Periods</b>	
	<b>1 Percent</b>	<b>General</b>	<b>1 Percent</b>	<b>General</b>
2010	97.81%	102.85%	\$ 1,493,752	\$ 634,095
2011	97.73%	108.30%	1,153,265	753,309
2012	97.02%	110.96%	733,450	118,691
2013	109.40%	109.96%	989,396	438,947
2014	103.20%	109.57%	1,148,873	988,796
2015	98.86%	104.15%	2,275,461	4,888
2016	97.54%	97.72%	1,192,700	884,301
2017	99.46%	109.79%	1,230,854	1,443,272
2018	102.79%	110.87%	1,542,713	1,635,416
2019	99.28%	110.93%	1,510,697	1,911,630
<b>Total</b>			<b>\$ 13,271,161</b>	<b>\$ 8,813,346</b>

**Source:** County of Orange Tax Ledger

**Notes:**

- <sup>(1)</sup> The estimated levy for one percent revenue is generated internally and it is based on prior year receipts and developer growth projections.
- <sup>(2)</sup> The estimated levy for G.O. tax receipts is based on the county's assessed value projection multiplied by the tax rate assessed within each improvement district.
- <sup>(3)</sup> The General column for Collected tax receipts includes an unbudgeted utility tax revenue from improvement districts 190/290 that adds approximately \$400K per year.

## Irvine Ranch Water District

### Outstanding Debt by Type <sup>(1)</sup>

For the Past Ten Fiscal Years

Fiscal Year	Total Service Connections <sup>(2)</sup>	General Obligation Bonds <sup>(3)</sup>	GO Debt per Connection	Certificates of Participation	COPS Debt per Connection
2010	188,275	\$399,152,800	\$2,120	\$92,005,200	\$489
2011	191,474	562,051,000	2,935	88,043,000	460
2012	193,293	548,549,000	2,838	83,616,000	433
2013	196,596	534,343,000	2,718	78,698,000	400
2014	200,559	515,900,000	2,572	73,565,000	367
2015	203,762	503,800,000	2,472	67,293,000	330
2016	209,267	491,200,000	2,347	60,387,000	289
2017	215,573	608,118,000	2,821	153,626,000	713
2018	222,918	586,493,000	2,631	150,275,000	674
2019	227,749	574,669,000	2,523	146,744,000	644



**Irvine Ranch Water District**  
**Outstanding Debt by Type <sup>(1)</sup>**  
**For the Past Ten Fiscal Years**  
**(Continued)**

<b>Fiscal Year</b>	<b>JPA Revenue Bonds</b>	<b>JPA Debt per Connection</b>	<b>Notes Payable</b>	<b>Notes Payable per Connection</b>	<b>Total Debt</b>	<b>Total Debt per Connection</b>
2010	\$690,263,700	\$3,666	\$4,553,000	\$24	\$1,185,974,700	\$6,299
2011	676,415,000	3,533	2,747,000	14	1,329,256,000	6,942
2012	638,521,000	3,303	2,494,000	13	1,273,180,000	6,587
2013	610,568,000	3,106	2,240,000	11	1,225,849,000	6,235
2014	0	0	1,984,000	10	591,449,000	2,949
2015	0	0	1,728,000	8	572,821,000	2,811
2016	0	0	1,469,000	7	553,056,000	2,643
2017	0	0	1,209,000	6	762,953,000	3,539
2018	0	0	947,000	4	737,715,000	3,309
2019	0	0	684,000	3	722,097,000	3,171

Source: Irvine Ranch Water District

Notes:

- <sup>(1)</sup> More detail about the District's long-term liabilities can be found in Note 9 to the Basic Financial Statements.
- <sup>(2)</sup> Per Capita income information for the Irvine Ranch Water District is not readily available. Accordingly, the District presents this schedule by total service connections.
- <sup>(3)</sup> Includes unamortized discount/deferred loss on refunding for the fiscal year 2010 through the fiscal year 2013.

**Irvine Ranch Water District**  
**Outstanding General Obligation Bonds by Improvement District**  
**As of June 30, 2019**

<b>Improvement District</b>	<b>General Obligation Bonds Authorized</b>	<b>General Obligation Bonds Issued</b>	<b>Remaining Unissued General Obligation Bonds Authorized</b>	<b>Amount Outstanding as of June 30, 2019</b>
112	\$ 28,512,300	\$ 8,111,000	\$ 20,401,300	\$ 7,476,000
113	25,769,500	16,300,000	9,469,500	14,320,000
125	735,246,000	429,729,000	305,517,000	182,981,000
153	237,300,000	7,601,000	229,699,000	7,601,000
154	4,839,000	0	4,839,000	0
185	13,500,000	1,493,000	12,007,000	1,493,000
188	8,174,000	4,590,000	3,584,000	1,591,000
<b>Total</b>	<b>\$1,053,340,800</b>	<b>\$ 467,824,000</b>	<b>\$ 585,516,800</b>	<b>\$ 215,462,000</b>
210	\$ 2,000,000	\$ 2,000,000	\$ 0	\$ 0
212	108,711,800	26,013,000	82,698,800	24,314,000
213	87,647,500	28,565,000	59,082,500	23,621,000
225	856,643,000	493,304,000	363,339,000	255,574,000
240	117,273,000	49,722,000	67,551,000	17,071,000
253	122,283,000	11,877,000	110,406,000	11,877,000
285	21,300,000	1,809,000	19,491,000	1,809,000
288	8,977,000	443,000	8,534,000	373,000
<b>Total</b>	<b>\$1,324,835,300</b>	<b>\$ 613,733,000</b>	<b>\$ 711,102,300</b>	<b>\$ 334,639,000</b>
	<b>\$2,378,176,100</b>	<b>\$1,081,557,000</b>	<b>\$1,296,619,100</b>	<b>\$ 550,101,000</b>

Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
**Ratio of General Obligation Debt to Assessed Values <sup>(1)</sup>**  
**for the Past Ten Fiscal Years**

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 112</b>			
2010	\$ 521,318,307	\$ 2,745,000	0.00526550
2011	539,618,060	5,745,000	0.01064642
2012	504,820,526	5,745,000	0.01138028
2013	511,871,892	5,653,500	0.01104476
2014	780,606,904	5,562,000	0.00712523
2015	1,333,029,836	5,470,000	0.00410343
2016	1,850,638,433	5,378,000	0.00290602
2017	2,077,681,111	7,658,000	0.00368584
2018	2,795,881,726	7,567,000	0.00270648
2019	3,230,805,159	7,476,000	0.00231397

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 212</b>			
2010	\$ 521,318,307	\$ 7,305,000	0.01401255
2011	539,618,060	15,705,000	0.02910392
2012	504,820,526	15,705,000	0.03111007
2013	511,871,892	15,461,500	0.03020580
2014	780,606,904	15,218,000	0.01949509
2015	1,333,029,836	14,974,000	0.01123306
2016	1,850,638,433	14,731,000	0.00795996
2017	2,077,681,111	24,801,000	0.01193687
2018	2,795,881,726	24,558,000	0.00878363
2019	3,230,805,159	24,314,000	0.00752568

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 113</b>			
2010	\$ 651,917,180	\$ 4,505,375	0.00691096
2011	553,458,157	9,770,000	0.01765264
2012	536,369,090	15,794,500	0.02944707
2013	562,239,093	15,541,750	0.02764260
2014	674,596,339	14,150,000	0.02097551
2015	827,524,085	13,900,000	0.01679709
2016	885,391,548	13,638,000	0.01540335
2017	1,031,821,023	14,870,000	0.01441141
2018	1,143,798,184	14,597,000	0.01276187
2019	1,186,452,170	14,320,000	0.01206960

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 213</b>			
2010	\$ 651,917,180	\$ 17,544,775	0.02691258
2011	553,458,157	17,283,000	0.03122729
2012	536,369,090	23,418,645	0.04366144
2013	562,239,093	22,828,480	0.04060280
2014	674,596,339	22,074,000	0.03272179
2015	827,524,085	21,488,000	0.02596662
2016	885,391,548	20,839,000	0.02353648
2017	1,031,821,023	24,950,000	0.02418055
2018	1,143,798,184	24,288,000	0.02123452
2019	1,186,452,170	23,621,000	0.01990894

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 125</b>			
2010	n/a	n/a	n/a
2011	n/a	n/a	n/a
2012	n/a	n/a	n/a
2013	n/a	n/a	n/a
2014	\$29,578,638,615	\$192,075,000	0.00649371
2015	32,752,414,757	187,604,000	0.00572794
2016	35,506,392,050	182,932,000	0.00515209
2017	38,802,873,378	194,719,000	0.00501816
2018	42,983,731,609	187,049,000	0.00435162
2019	45,924,240,097	184,083,000	0.00400841

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 225</b>			
2010	n/a	n/a	n/a
2011	n/a	n/a	n/a
2012	n/a	n/a	n/a
2013	n/a	n/a	n/a
2014	\$24,757,488,949	\$240,995,000	0.00973423
2015	27,557,606,802	235,865,000	0.00855898
2016	29,945,134,379	230,535,000	0.00769858
2017	32,838,922,602	268,655,000	0.00818099
2018	36,549,538,031	260,260,000	0.00712075
2019	39,234,190,651	256,320,000	0.00653308

**Irvine Ranch Water District**  
**Ratio of General Obligation Debt to Assessed Values <sup>(1)</sup>**  
**for the Past Ten Fiscal Years**  
**(continued)**

<b>Fiscal Year</b>	<b>Assessed Valuation</b>	<b>General Obligation Debt Outstanding</b>	<b>General Obligation Debt to Assessed Valuation</b>
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<b>Fiscal Year</b>	<b>Assessed Valuation</b>	<b>General Obligation Debt Outstanding</b>	<b>General Obligation Debt to Assessed Valuation</b>
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**Improvement District 240**

<b>2010</b>	\$4,871,225,527	\$30,885,287	0.00634035
<b>2011</b>	4,903,741,743	29,527,697	0.00602146
<b>2012</b>	4,973,007,663	28,081,173	0.00564672
<b>2013</b>	5,343,804,951	26,441,526	0.00494807
<b>2014</b>	5,609,174,229	24,078,000	0.00429261
<b>2015</b>	6,031,968,996	22,767,000	0.00377439
<b>2016</b>	6,449,202,772	21,431,000	0.00332305
<b>2017</b>	7,000,292,817	21,271,000	0.00303859
<b>2018</b>	7,667,626,922	17,921,000	0.00233723
<b>2019</b>	8,000,510,347	17,202,000	0.00215011

**Improvement District 153**

<b>2010</b>	\$ 36,997,523	n/a	n/a
<b>2011</b>	7,971,152	n/a	n/a
<b>2012</b>	8,114,060	n/a	n/a
<b>2013</b>	8,475,848	n/a	n/a
<b>2014</b>	8,687,744	n/a	n/a
<b>2015</b>	666,622,225	n/a	n/a
<b>2016</b>	1,287,363,937	n/a	n/a
<b>2017</b>	2,893,148,966	\$7,601,000	0.00262724
<b>2018</b>	4,097,566,306	7,601,000	0.00185500
<b>2019</b>	5,118,350,587	7,601,000	0.00148505

**Improvement District 253**

<b>2010</b>	\$ 36,997,523	n/a	n/a
<b>2011</b>	7,971,152	n/a	n/a
<b>2012</b>	8,114,060	n/a	n/a
<b>2013</b>	8,475,848	n/a	n/a
<b>2014</b>	228,692,347	n/a	n/a
<b>2015</b>	666,622,225	n/a	n/a
<b>2016</b>	1,287,363,937	n/a	n/a
<b>2017</b>	2,893,148,966	\$11,877,000	0.00410522
<b>2018</b>	4,097,566,306	11,877,000	0.00289855
<b>2019</b>	5,118,350,587	11,877,000	0.00232047

**Improvement District 154**

<b>2010</b>	\$ 8,831,144	n/a	n/a
<b>2011</b>	8,904,175	n/a	n/a
<b>2012</b>	9,127,678	n/a	n/a
<b>2013</b>	9,334,512	n/a	n/a
<b>2014</b>	9,111,103	n/a	n/a
<b>2015</b>	9,289,351	n/a	n/a
<b>2016</b>	9,266,433	n/a	n/a
<b>2017</b>	9,376,883	n/a	n/a
<b>2018</b>	9,529,712	n/a	n/a
<b>2019</b>	9,720,296	n/a	n/a

**Irvine Ranch Water District**  
**Ratio of General Obligation Debt to Assessed Values <sup>(1)</sup>**  
**for the Past Ten Fiscal Years**  
**(continued)**

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 185</b>			
2010	n/a	n/a	n/a
2011	n/a	n/a	n/a
2012	n/a	n/a	n/a
2013	n/a	n/a	n/a
2014	\$ 85,119,097	n/a	n/a
2015	209,634,682	n/a	n/a
2016	586,316,903	n/a	n/a
2017	836,640,799	\$1,493,000	0.00178452
2018	1,209,166,559	1,493,000	0.00123473
2019	1,465,394,626	1,493,000	0.00101884

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 285</b>			
2010	n/a	n/a	n/a
2011	n/a	n/a	n/a
2012	n/a	n/a	n/a
2013	n/a	n/a	n/a
2014	\$ 85,119,097	n/a	n/a
2015	209,634,682	n/a	n/a
2016	586,316,903	n/a	n/a
2017	836,640,799	\$1,809,000	0.00216222
2018	1,209,166,559	1,809,000	0.00149607
2019	1,465,394,626	1,809,000	0.00123448

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 188</b>			
2010	\$ 14,613,156	\$1,050,082	0.07185867
2011	13,887,854	2,155,702	0.15522211
2012	14,165,606	1,942,809	0.13714973
2013	14,448,912	1,714,661	0.11867060
2014	14,446,476	1,468,000	0.10161648
2015	14,735,113	1,462,000	0.09921879
2016	185,851,827	1,456,000	0.00783420
2017	196,953,990	1,603,000	0.00813896
2018	212,742,385	1,597,000	0.00750673
2019	246,753,329	1,591,000	0.00644773

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 288</b>			
2010	\$ 14,613,156	\$ 300,000	0.02052945
2011	13,887,854	300,000	0.02160161
2012	14,165,606	300,000	0.02117806
2013	14,448,912	290,000	0.02007072
2014	14,446,476	280,000	0.01938189
2015	14,735,113	270,000	0.01832358
2016	185,851,827	260,000	0.00139896
2017	196,953,990	393,000	0.00199539
2018	212,742,385	383,000	0.00180030
2019	246,753,329	373,000	0.00151163

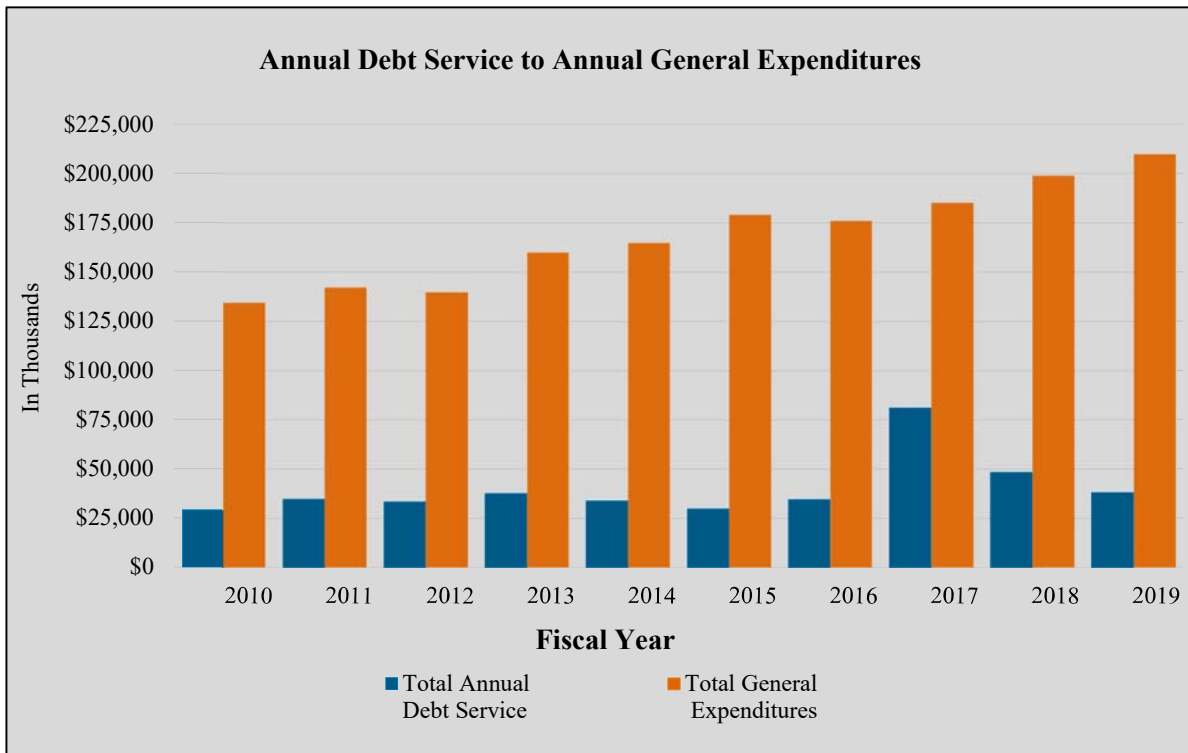
Source: Irvine Ranch Water District

**Note:**

<sup>(1)</sup> In December 2013, the District consolidated water ID's 120, 121, 130, 140, 150, 160, 161, 182, 184, and 186 into ID 125 and sewer ID's 220, 221, 230, 250, 260, 261, 282, 284, and 286 into ID 225.

**Irvine Ranch Water District**  
**Ratio of Annual Debt Service Expenditures to Total General Expenditures**  
**For the Past Ten Fiscal Years**  
(in thousands)

<b>Fiscal Year</b>	<b>Total Annual Debt Service</b>	<b>Total General Expenditures</b>	<b>Ratio of Total Annual Debt Service to Total General Expenditures</b>
2010	\$29,044	\$134,027	21.7%
2011	34,842	141,831	24.6%
2012	33,437	139,444	24.0%
2013	37,734	159,558	23.6%
2014	34,009	164,420	20.7%
2015	29,921	178,713	16.7%
2016	34,560	175,694	19.7%
2017	81,029	184,854	43.8%
2018	48,349	198,549	24.4%
2019	38,176	209,413	18.2%



Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
Debt Service Coverage (in thousands)  
For the Past Ten Fiscal Years

	Fiscal Year				
	2010	2011	2012	2013	2014
<b>Revenues</b>					
Water sales and service charges	\$ 51,268	\$ 54,796	\$ 57,558	\$ 62,565	\$ 66,321
Sewer sales and service charges	45,344	45,375	49,234	53,085	58,109
Developer Connection fees	5,818	10,572	9,030	17,314	22,429
Net real estate income	5,624	5,649	6,736	6,566	7,760
Interest income	2,191	2,599	1,739	1,549	1,671
Net earnings on JPA	4,196	12,444	11,927	20,294	12,356
Available 1% property tax revenue	19,346	22,396	23,165	25,796	28,532
Other	10,706	7,987	6,141	8,323	10,974
<b>Total Revenues</b>	<b>144,493</b>	<b>161,818</b>	<b>165,530</b>	<b>195,492</b>	<b>208,152</b>
<b>Expenses</b>					
Water supply services	43,591	45,961	44,883	51,163	57,624
Sewer services	30,992	33,382	33,086	38,189	37,715
Administrative and general	20,000	18,896	20,097	22,667	17,487
Pension and OPEB Expense	0	0	0	0	4,785
Other	1,286	989	10,713	6,110	7,163
<b>Total Expenses</b>	<b>95,869</b>	<b>99,228</b>	<b>108,779</b>	<b>118,129</b>	<b>124,774</b>
<b>Net Revenues</b>					
Applicable <i>Ad Valorem</i> Assessments Available for GO	\$ 48,624	\$ 62,590	\$ 56,751	\$ 77,363	\$ 83,378
Double-Barrel Bonds	\$ 0	\$ 0	\$ 5,823	\$ 5,838	\$ 6,409
<b>Parity Obligations</b>					
Certificates of Participation	\$ 3,119	\$ 7,680	\$ 8,016	\$ 8,388	\$ 8,753
1997 State Loan #3	0	226	226	226	227
Series 2010B Bonds	0	4,080	7,533	7,519	7,825
Series 2011-A Index Tender Notes	0	35	2,284	2,306	2,360
2016 General Obligation	0	0	0	0	0
Total Parity Obligations Debt Service	3,119	12,021	18,059	18,439	19,165
<b>Remaining Revenues</b>	<b>\$ 45,505</b>	<b>\$ 50,569</b>	<b>\$ 44,515</b>	<b>\$ 64,762</b>	<b>\$ 70,622</b>
<b>Parity Obligation Coverage</b>					
	15.6 x	5.2 x	3.5 x	4.5 x	4.7 x
<b>Subordinate Obligations</b>					
Fixed Payer Swap Payments	\$ 7,391	\$ 7,734	\$ 7,734	\$ 7,452	\$ 7,475
State Loans and SCWD Debt	381	253	308	308	308
Total Subordinate Obligations	7,772	7,987	8,042	7,760	7,783
<b>Remaining Revenues</b>	<b>\$ 37,733</b>	<b>\$ 42,582</b>	<b>\$ 36,473</b>	<b>\$ 57,002</b>	<b>\$ 62,839</b>
<b>Non-Double-Barrel GO Bonds</b>					
<b>Revenues Pledged to Non-Double-Barrel GO Bonds</b>					
1% Property tax revenues (Pledged to Secured Bonds)	\$ 7,804	\$ 4,593	\$ 3,313	\$ 3,470	\$ 3,013
Pro-rata Share <i>Ad valorem</i> Assessments for Non-Double-Barrel GO Bonds	11,244	11,690	5,761	5,965	4,797
<b>Sub-total Pledged Revenues</b>	<b>56,781</b>	<b>58,865</b>	<b>45,547</b>	<b>66,437</b>	<b>70,649</b>
<b>Additional Funds Available for Non-Double-Barrel GO Bonds</b>					
Remaining 1% Property Tax Revenues	19,346	22,396	23,165	25,796	28,532
Additional Net Revenues	18,387	20,186	13,308	25,248	34,307
<b>Total with Additional Pledged Revenues</b>	<b>\$ 56,781</b>	<b>\$ 58,865</b>	<b>\$ 45,547</b>	<b>\$ 66,437</b>	<b>\$ 70,649</b>
<b>Debt Service</b>					
Non-Double-Barrel GO Bond Debt Service	\$ 21,179	\$ 16,899	\$ 16,899	\$ 17,129	\$ 10,968
GO Bond Coverage	2.7 x	3.5 x	2.7 x	3.9 x	6.4 x
<b>Remaining Revenues</b>	<b>\$ 35,602</b>	<b>\$ 41,966</b>	<b>\$ 28,648</b>	<b>\$ 49,308</b>	<b>\$ 59,681</b>
Total Debt Coverage	2.1 x	2.1 x	1.7 x	2.1 x	2.6 x

**Irvine Ranch Water District**  
**Debt Service Coverage (in thousands)**  
**For the Past Ten Fiscal Years**  
**(Continued)**

	Fiscal Year				
	2015	2016	2017	2018	2019
<b>Revenues</b>					
Water sales and service charges	\$ 70,110	\$ 76,692	\$ 77,252	\$ 84,575	\$ 94,107
Sewer sales and service charges	62,808	67,682	72,054	76,789	76,841
Developer Connection fees	29,183	32,109	25,563	32,674	18,205
Net real estate income	8,191	8,693	9,076	3,405	8,372
Interest income	1,515	1,585	3,210	4,133	6,199
Net earnings on JPA	0	0	0	0	0
Available 1% property tax revenue	29,770	31,645	34,247	29,649	42,389
Other	7,899	7,836	7,117	7,504	8,876
<b>Total Revenues</b>	<b>209,476</b>	<b>226,242</b>	<b>228,519</b>	<b>238,729</b>	<b>254,989</b>
<b>Expenses</b>					
Water supply services	57,978	57,499	55,296	63,671	64,004
Sewer services	54,575	40,413	42,752	38,115	43,734
Administrative and general	16,012	19,909	22,664	22,390	25,610
Pension and OPEB Expense	2,237	2,831	5,146	10,496	10,036
Other	9,752	2,800	1,997	174	2,615
<b>Total Expenses</b>	<b>140,554</b>	<b>123,452</b>	<b>127,855</b>	<b>134,846</b>	<b>145,999</b>
<b>Net Revenues</b>	<b>\$ 68,922</b>	<b>\$ 102,790</b>	<b>\$ 100,664</b>	<b>\$ 103,883</b>	<b>\$ 108,990</b>
Applicable <i>Ad Valorem</i> Assessments Available for GO Double-Barrel Bonds	\$ 4,839	\$ 6,036	\$ 8,605	\$ 10,499	\$ 12,554
<b>Parity Obligations</b>					
Certificates of Participation	\$ 9,098	\$ 9,487	\$ 11,675	\$ 7,722	\$ 7,821
1997 State Loan #3	227	227	194	194	194
Series 2010B Bonds	7,829	7,823	7,813	7,807	7,792
Series 2011-A Index Tender Notes	2,455	2,927	2,967	3,675	4,045
2016 General Obligation	0	0	1,605	5,301	5,301
Total Parity Obligations Debt Service	19,609	20,464	24,254	24,699	25,153
Remaining Revenues	\$ 54,152	\$ 88,362	\$ 85,015	\$ 89,683	\$ 96,391
<b>Parity Obligation Coverage</b>	<b>3.8 x</b>	<b>5.3 x</b>	<b>4.5 x</b>	<b>4.6 x</b>	<b>4.8 x</b>
<b>Subordinate Obligations</b>					
Fixed Payer Swap Payments	\$ 7,734	\$ 7,712	\$ 6,798	\$ 5,739	\$ 4,513
State Loans and SCWD Debt	308	308	133	122	122
Total Subordinate Obligations	8,042	8,020	6,931	5,861	4,635
<b>Remaining Revenues</b>	<b>\$ 46,110</b>	<b>\$ 80,342</b>	<b>\$ 78,084</b>	<b>\$ 83,822</b>	<b>\$ 91,756</b>
<b>Non-Double-Barrel GO Bonds</b>					
<b>Revenues Pledged to Non-Double-Barrel GO Bonds</b>					
1% Property tax revenues (Pledged to Secured Bonds)	\$ 3,358	\$ 3,226	\$ 3,128	\$ 10,834	\$ 1,192
Pro-rata Share <i>Ad valorem</i> Assessments for Non-Double-Barrel GO Bonds	4,463	5,396	5,341	6,265	6,922
<b>Sub-total Pledged Revenues</b>	<b>53,931</b>	<b>88,964</b>	<b>86,553</b>	<b>100,921</b>	<b>99,870</b>
<b>Additional Funds Available for Non-Double-Barrel GO Bonds</b>					
Remaining 1% Property Tax Revenues	29,770	31,645	34,247	29,649	42,389
Additional Net Revenues	16,340	48,697	43,837	54,173	49,367
<b>Total with Additional Pledged Revenues</b>	<b>\$ 53,931</b>	<b>\$ 88,964</b>	<b>\$ 86,553</b>	<b>\$ 100,921</b>	<b>\$ 99,870</b>
<b>Debt Service</b>					
Non-Double-Barrel GO Bond Debt Service	\$ 12,840	\$ 11,173	\$ 12,385	\$ 20,843	\$ 11,436
GO Bond Coverage	4.2 x	8.0 x	7.0 x	4.8 x	8.7 x
<b>Remaining Revenues</b>	<b>\$ 41,091</b>	<b>\$ 77,791</b>	<b>\$ 74,168</b>	<b>\$ 80,078</b>	<b>\$ 88,434</b>
Total Debt Coverage	2.0 x	3.0 x	2.7 x	2.6 x	3.1 x

Source: Irvine Ranch Water District



**Irvine Ranch Water District**  
Principal Employers  
Fiscal Year Ended June 30, 2019

<b>Name of Company</b>	<b>Number of Employees</b>	<b>Products</b>	<b>Percentage of Employment</b>
University of California, Irvine	23,884	Educational	9.05%
Irvine Unified School District	5,029	Educational	1.90%
Mastec	4,000	Construction	1.52%
Edwards Lifesciences, LLC	2,987	Surgical Appliances and Supplies	1.13%
Broadcom	2,604	Technology	0.99%
Blizzard Entertainment, Inc	2,327	Technology	0.88%
Glidewell Laboratories	1,538	Dental Appliances	0.58%
B Braun Medical	1,370	Bio-Medical Manufacturing	0.52%
Western Digital	1,300	Technology	0.49%
Parker Hannifin Corporation	1,200	Aircraft Parts	0.45%
			<b>17.51%</b>

**Source:** City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2018)  
Data was not yet available for FY 2018/19 from the City of Irvine.  
The City of Irvine is only a part of the IRWD service area.

**Irvine Ranch Water District**  
Demographic & Economic Statistics  
For the Past Ten Fiscal Years

<b>Fiscal Year Ended</b>	<b>IRWD Population</b>	<b>City of Irvine Population</b>	<b>City of Irvine Median Family Income</b>	<b>Total Personal Income (in thousands)</b>	<b>County of Orange Unemployment Rate</b>
2010	331,500	217,686	\$94,903	\$8,090,372	9.5%
2011	330,000	219,156	93,258	8,481,794	9.2%
2012	334,000	223,729	90,939	8,886,628	7.9%
2013	340,000	231,117	92,599	8,174,011	6.1%
2014	370,000	242,651	92,663	9,595,168	5.0%
2015	370,000	250,384	90,585	10,593,508	4.2%
2016	390,000	258,386	91,999	10,946,242	3.6%
2017	390,000	267,086	92,278	12,840,224	3.2%
2018	390,000	276,176	93,823	12,272,130	2.6%
2019	422,000	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	2.4%

**Source:** City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2018) and County of Orange website.

Data for the entire Irvine Ranch Water District service area is not readily available. The City of Irvine is only a part of the IRWD service area.

**Note:**

<sup>(1)</sup> City of Irvine Population, Median Family Income, and Total Personal Income for FY 2019 has not yet been published by the City of Irvine.

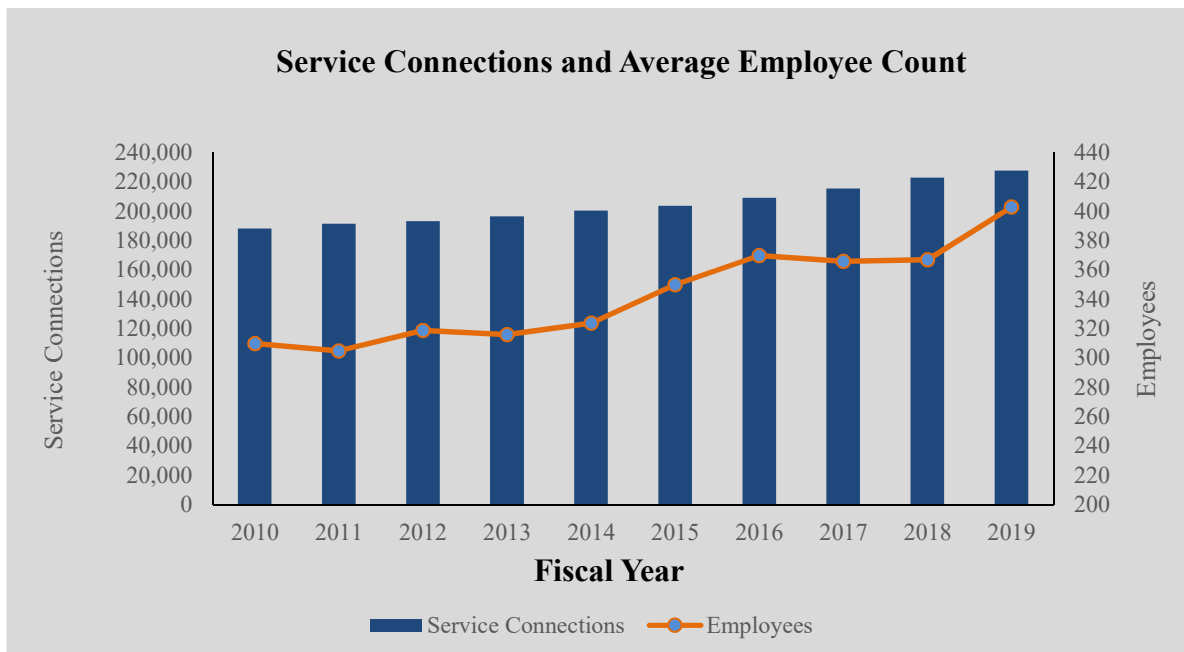
## Irvine Ranch Water District

### Operating Indicators by Function

### Water and Sewer Service Connections

### For the Past Ten Fiscal Years

Fiscal Year	Water	Sewer & Recycled Water	Total Service Connections	Average Employee Population	Service Connections per Employee
2010	97,023	91,252	188,275	310	607
2011	98,637	92,837	191,474	305	628
2012	99,465	93,828	193,293	319	606
2013	101,108	95,488	196,596	316	622
2014	103,077	97,482	200,559	324	619
2015	104,678	99,084	203,762	350	582
2016	107,402	101,865	209,267	370	566
2017	110,520	105,053	215,573	366	589
2018	114,164	108,754	222,918	367	607
2019	116,539	111,210	227,749	403	565



Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
**Operating Indicators by Function**  
**New Service Connections**  
**For the Past Ten Fiscal Years**

	<b>Fiscal Year</b>									
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016<sup>(1)</sup></b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Water</b>										
Residential	631	1,469	862	1,520	1,848	1,727	2,513	2,928	3,355	2,314
Commercial/Industrial/ Public Authority	19	98	18	27	40	(126)	82	88	133	27
Fire Protection	43	40	37	55	50	29	107	83	99	68
Construction & Temporary	(6)	39	3	31	36	4	3	14	43	(23)
Landscape Irrigation	33	(21)	(89)	8	(4)	(30)	19	5	13	(11)
Agricultural	(8)	(11)	(3)	2	(1)	(3)	0	0	1	0
<b>Total Water</b>	<b>712</b>	<b>1,614</b>	<b>828</b>	<b>1,643</b>	<b>1,969</b>	<b>1,601</b>	<b>2,724</b>	<b>3,118</b>	<b>3,644</b>	<b>2,375</b>
<b>Sewer</b>										
Residential	613	1,462	861	1,521	1,829	1,727	2,501	2,894	3,340	2,314
Commercial/Industrial/ Public Authority	21	37	21	29	41	(232)	88	84	137	45
Landscape Irrigation	63	85	102	112	127	113	0	0	0	0
Agricultural	10	1	7	(2)	(3)	(6)	0	0	0	0
<b>Total Sewer</b>	<b>707</b>	<b>1,585</b>	<b>991</b>	<b>1,660</b>	<b>1,994</b>	<b>1,602</b>	<b>2,589</b>	<b>2,978</b>	<b>3,477</b>	<b>2,359</b>
<b>Recycled Water</b>										
Residential	0	0	0	0	0	0	6	33	14	1
Commercial/Industrial/ Public Authority	0	0	0	0	0	0	8	9	14	12
Construction & Temporary	0	0	0	0	0	0	13	8	(5)	(1)
Landscape Irrigation	0	0	0	0	0	0	162	161	199	85
Agricultural	0	0	0	0	0	0	3	(1)	2	0
<b>Total Recycled Water</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>192</b>	<b>210</b>	<b>224</b>	<b>97</b>
<b>Total</b>	<b>1,419</b>	<b>3,199</b>	<b>1,819</b>	<b>3,303</b>	<b>3,963</b>	<b>3,203</b>	<b>5,505</b>	<b>6,306</b>	<b>7,345</b>	<b>4,831</b>

**Source:** Irvine Ranch Water District

<sup>(1)</sup> New connection data for Recycled Water connections was not available prior to the fiscal year 2016.

**Irvine Ranch Water District**  
**Operating Indicators by Function**  
**Average Monthly Usage Per Customer (in CCF)**  
**For the Past Ten Fiscal Years**

	<b>Fiscal Year</b>									
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Water</b>										
Residential	10	9	9	9	9	12	11	11	12	11
Commercial	57	56	61	63	66	57	60	57	61	59
Industrial	200	201	201	204	192	267	222	232	213	212
Public Authority	300	295	296	306	305	378	287	260	260	242
Construction & Temporary	52	79	106	181	241	398	285	148	172	75
Treated - Landscape Irrigation	95	85	94	105	182	110	74	82	95	82
Treated - Agricultural	663	925	835	733	575	646	327	402	403	255
Untreated - Agricultural	6,925	4,714	4,768	5,799	6,314	8,504	8,047	6,315	6,274	4,700
<b>Total</b>	<b>8,302</b>	<b>6,364</b>	<b>6,370</b>	<b>7,400</b>	<b>7,884</b>	<b>10,372</b>	<b>9,313</b>	<b>7,507</b>	<b>7,490</b>	<b>5,636</b>
<b>Recycled water</b>										
Landscape Irrigation	152	134	152	169	182	192	186	170	195	145
Agricultural	1,874	2,247	3,768	4,145	3,882	4,992	3,891	3,197	3,292	2,438
<b>Total</b>	<b>2,026</b>	<b>2,381</b>	<b>3,920</b>	<b>4,314</b>	<b>4,064</b>	<b>5,184</b>	<b>4,077</b>	<b>3,367</b>	<b>3,487</b>	<b>2,583</b>

**Source:** Irvine Ranch Water District

**Irvine Ranch Water District**  
**Source of Supply and Water Deliveries / Sales in Acre Feet**  
**For the Past Ten Fiscal Years**

**Source of Supply**  
(in Acre Feet)

<b>Fiscal Year</b>	<b>Local</b>	<b>Imported</b>	<b>Recycled</b>	<b>Total Supply</b>
2010	45,980	24,744	20,912	91,636
2011	41,274 <sup>(1)</sup>	30,260	21,030	92,564
2012	39,409	26,155	20,602	86,166
2013	49,967 <sup>(2)</sup>	20,151	22,983	93,101
2014	55,015 <sup>(2)</sup>	22,508	21,038	98,561
2015	54,057	18,628	22,866	95,551
2016	46,926	11,853	23,206	81,985
2017	49,252	16,418	22,006	87,676
2018	52,386	17,409	24,913	94,708
2019	51,844	13,937	22,382	88,163

**Water Deliveries / Sales**  
(in Acre Feet)

<b>Fiscal Year</b>	<b>Potable and Untreated</b>	<b>Recycled</b>	<b>Total Demand</b>
2010	56,689	21,153	77,842
2011	53,642	22,250	75,892
2012	54,818	25,011	79,829
2013	57,203	28,259	85,462 <sup>(3)</sup>
2014	59,907	30,021	89,928 <sup>(3)</sup>
2015	58,319	32,139	90,458 <sup>(3)</sup>
2016	51,098	26,879	77,977 <sup>(4)</sup>
2017	51,299	27,860	79,159
2018	54,603	31,737	86,340
2019	51,364	27,679	79,043 <sup>(5)</sup>

**Source:** Irvine Ranch Water District

- Notes:**
- <sup>(1)</sup> IDP wells were not operational in FY 2011.
  - <sup>(2)</sup> Wells 21 & 22 came on line during FY 2013 and was at full capacity in FY 2014.
  - <sup>(3)</sup> Extremely dry conditions led to a considerable increase in demands.
  - <sup>(4)</sup> State mandated reduction in usage resulted in a significant decrease in overall demand.
  - <sup>(5)</sup> Significant rainfall resulted in a decrease in overall demand.

**Irvine Ranch Water District**  
**Capital Asset Statistics**  
**For the Past Ten Fiscal Years**

	Fiscal Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Potable System</b>										
Miles of Water Line <sup>(1)</sup>	1,169	1,460	1,490	1,516	1,597	1,622	1,760	1,810	1,905	1,919
Number of Storage Tanks <sup>(2)</sup>	37	37	37	36	36	36	36	36	36	36
Maximum Storage Capacity (Acre Feet)	456	456	456	456	456	456	456	456	456	456
Number of Pumping Stations	43	43	43	37	38	39	39	39	39	39
Number of Wells	24	24	24	26	26	27	27	27	27	27
Well Production Capacity (cfs)	117	117	117	124	124	128	128	118	118	118
Water Banking Storage (Acre Feet)	107,600	109,600	109,600	109,600	109,600	109,600	126,000	126,000	126,000	126,000
Potable Treatment Plants	3	3	3	4	4	4	4	5	5	5
<b>Non-Potable and Recycled Systems</b>										
Miles of Recycled Line <sup>(1)</sup>	407	468	478	488	503	509	525	540	555	565
Number of Storage Tanks	11	11	11	12	12	12	12	11	12	12
Number of Open Reservoirs	4	4	4	5	5	5	5	5	5	5
Maximum Storage Capacity (Acre Feet) <sup>(3)</sup>	23,703	23,703	23,703	24,155	24,155	24,155	24,155	24,155	24,155	24,155
Number of Pumping Plants	19	19	19	20	19	20	20	20	19	19
Number of Wells <sup>(4)</sup>	5	5	5	5	5	5	5	5	5	5
Well Production Capacity (cfs)	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
<b>Sewer System</b>										
Miles of Sewer Line	940	950	962	971	1,009	1,019	1,070	1,081	1,123	1,134
Number of Lift Stations <sup>(5)</sup>	18	18	16	14	14	14	14	23	23	23
Treatment Plants	2	2	2	2	2	2	2	2	2	2
Treatment Capacity (mgd) (Tertiary)	23.5	23.5	23.5	23.5	33.5	33.5	33.5	33.5	33.5	33.5

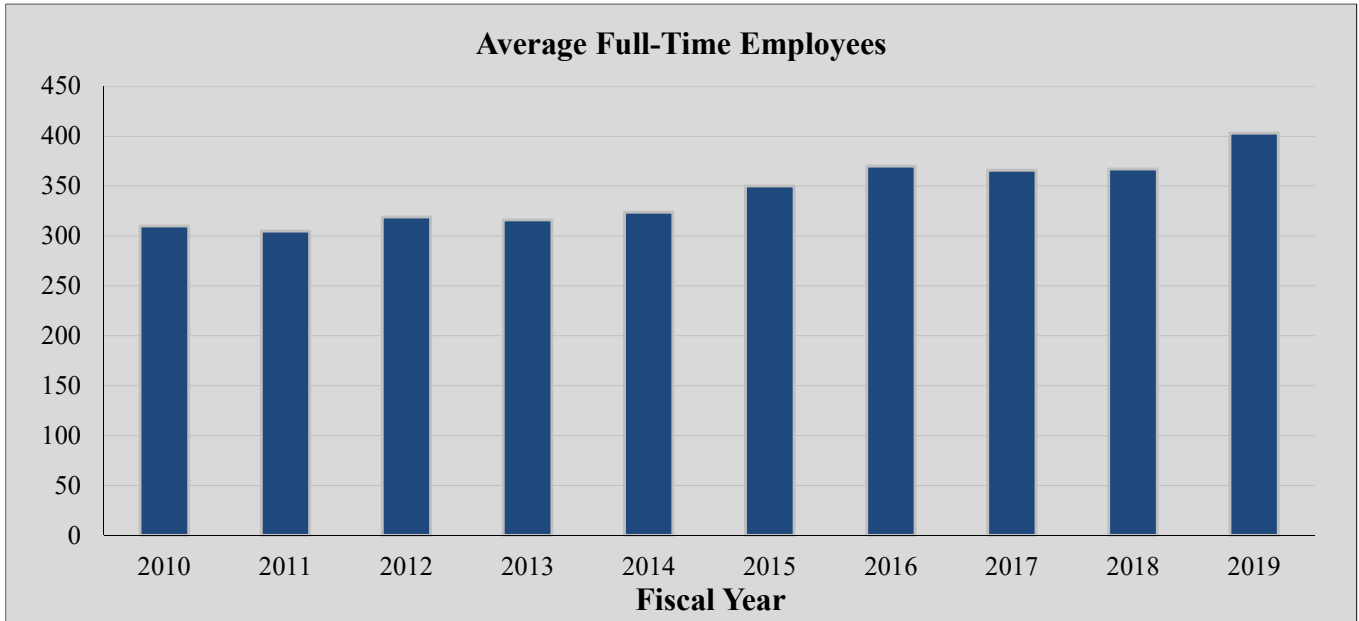
**Source:** Irvine Ranch Water District

**Notes:**

- <sup>(1)</sup> Miles of Line include laterals.
- <sup>(2)</sup> Total number of tanks excludes IRWD's storage capacity with East Orange County Water District. However, this capacity is accounted for in the maximum storage capacity estimate (456 AF).
- <sup>(3)</sup> Excludes Serrano Water District's capacity in Irvine Lake, which equals 25% of total capacity.
- <sup>(4)</sup> Accounts for active production wells only (Excludes SGU Injection Well).
- <sup>(5)</sup> Excludes lift stations serving individual IRWD facilities.

**Irvine Ranch Water District**  
 Full-Time Employees  
 For the Past Ten Fiscal Years

	Fiscal Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Average Full-Time Employees	310	305	319	316	324	350	370	366	367	403



**Source:** Irvine Ranch Water District



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Post Office Box 57000  
Irvine, CA 92619-7000  
949.453.5300

# IRVINE RANCH WATER DISTRICT





Board of Directors  
Irvine Ranch Water District  
Irvine, California

We have audited the financial statements of Irvine Ranch Water District (the "District") for the year ended June 30, 2019. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated August 1, 2019. Professional standards also require that we communicate to you the following information related to our audit.

### **Significant Audit Findings**

#### ***Qualitative Aspects of Accounting Practices***

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Irvine Ranch Water District are described in Note 1 to the financial statements. No new accounting policies were adopted, and the application of existing policies was not changed during the fiscal year ended June 30, 2019. We noted no transactions entered into by Irvine Ranch Water District during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

Examples of significant judgments and estimates reflected in the District's financial statements include:

- Judgments concerning which capital project expenditures should be capitalized and depreciated versus expensed in the financial statements and judgments concerning which projects should be placed in service.
- Judgements regarding the fair value of real estate investments.
- Judgments regarding the fair value of interest rate swap agreements.
- Judgements involving the estimated net pension liability
- Judgements involving the estimated OPEB liability

#### ***Difficulties Encountered in Performing the Audit***

We encountered no significant difficulties in dealing with management in performing and completing our audit.

### ***Corrected and Uncorrected Misstatements***

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate to the financial statements taken as a whole. An immaterial adjustment to record donated water inventory received in prior periods was not recorded. Management has determined that the effect is immaterial, both individually and in the aggregate, to the financial statement taken as a whole.

### ***Disagreements with Management***

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

### ***Management Representations***

We have requested certain representations from management that are included in the management representation letter dated November 12, 2019.

### ***Management Consultations with Other Independent Accountants***

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to Irvine Ranch Water District's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

### ***Other Audit Findings or Issues***

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as Irvine Ranch Water District's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

### ***Other Matters***

We applied certain limited procedures to *Management's Discussion and Analysis, Schedule of Changes in the Net Pension Liability and Related Ratio, Schedule of Contributions – Defined Benefit Pension Plan, Schedule of Changes in the OPEB Liability and Related Ratio, Schedule of Contributions – OPEB*, which are required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial

statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were not engaged to report on the Introduction and Statistical Section, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

**Restriction on Use**

This information is intended solely for the use of Board of Directors and management of Irvine Ranch Water District and is not intended to be, and should not be, used by anyone other than these specified parties.

A handwritten signature in blue ink that reads "Dennis Lee" followed by a stylized monogram or initials.

Irvine, California  
November 12, 2019

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**Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With Government Auditing Standards**

**Independent Auditor's Report**

Finance Personnel Committee  
Irvine Ranch Water District  
Irvine, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States the financial statements of Irvine Ranch Water District (the "District") as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the District's basic financial statements, and have issued our report thereon dated November 12, 2019.

**Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

## **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in blue ink that reads "David Lee CP".

Irvine, California  
November 12, 2019



December 16, 2019  
Prepared by: L. Srader  
Submitted by: J. Roney  
Approved by: Paul A. Cook



## CONSENT CALENDAR

### ADOPTION OF A REVISED SCHEDULE OF POSITIONS AND SALARY RATE RANGES

#### SUMMARY:

Staff recommends that the Board adopt a resolution superseding Resolution No. 2019-15 and revising the District's Schedule of Positions and Salary Rate Ranges to include one additional position, Senior Regulatory Compliance Administrator position, into the schedule.

#### BACKGROUND:

After review of the District's budgeted positions, staff has determined the need for an adjustment to the District's Schedule of Positions and Salary Rate Ranges. This adjustment is to add a Senior Regulatory Compliance Administrator position (U15.E) to account for the increased scope of activities within the Regulatory Compliance Department. While the changes to the positions and salary grades are allowable under the General Manager's authority, CalPERS requires that each employment position and pay rate be identified in a publicly available pay schedule (CalPERS Regulations, 2 CCR 570.5). Provided as Exhibit "A" is a resolution for adoption which includes the revised salary rate ranges under Schedule "I" (see page A-5).

#### FISCAL IMPACTS:

The FY 2018-19 Operating Budget adopted by the Board of Directors on April 22, 2019 includes funding sufficient for the proposed changes.

#### ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act and California Code of Regulations, Title 14, Chapter 3, Section 15378.

#### COMMITTEE STATUS:

This item was not reviewed by a Committee.

#### RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2019 -

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
IRVINE RANCH WATER DISTRICT SUPERCEDING  
RESOLUTION NO. 2019-15 AND ADOPTING A REVISED  
SCHEDULE OF POSITIONS AND SALARY RATE  
RANGES

LIST OF EXHIBITS:

Exhibit "A" – Resolution of the Board of Directors of the Irvine Ranch Water District Adopting  
a Revised Schedule of Positions and Salary Rate Ranges

EXHIBIT "A"

RESOLUTION NO. 2019 -

RESOLUTION OF THE BOARD OF DIRECTORS  
OF IRVINE RANCH WATER DISTRICT,  
SUPERSEDING RESOLUTION NO. 2019-15 AND  
ADOPTING A REVISED SCHEDULE OF POSITIONS  
AND SALARY RATE RANGES

The Board of Directors of Irvine Ranch Water District, by adoption of Resolution No. 2019-15 on June 10, 2019, established a Schedule of Positions and Salary Rate Ranges of the Irvine Ranch Water District; and

The Board of Directors of Irvine Ranch Water District has reviewed the Schedule of Positions and Salary Rate Ranges and desires to make revisions thereto.

The Schedule of Positions and Salary Rate Ranges requires amendment to add a new classification of Senior Regulatory Compliance Administrator (U15.E), to effectively accomplish the District's goals and strategic objectives and to deliver effective and efficient service to our customers.

The Board of Directors of Irvine Ranch Water District does hereby resolve, determine and order as follows:

Section 1. That the Schedule of Positions and Salary Rate Ranges adopted by Resolution No. 2019-15 on June 10, 2019 is hereby superseded effective December 16, 2019

Section 2. That the Schedule of Positions and Salary Rate Ranges for the Irvine Ranch Water District as set forth in Schedule "I" attached to this resolution, and as effective December 16, 2019 for all classifications, is hereby approved and adopted.

ADOPTED, SIGNED and APPROVED on December 16, 2019.

\_\_\_\_\_  
President, IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

\_\_\_\_\_  
Secretary, IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

APPROVED AS TO FORM:

Lewis Brisbois Bisgaard & Smith LLP

By: \_\_\_\_\_

District Counsel

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Schedule "I"  
**IRVINE RANCH WATER DISTRICT**  
**MONTHLY SALARY GRADE SCHEDULE**  
**Managers, Exempt Supervisors, Confidential & Exempt Employees**  
**Effective December 16, 2019**

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<b><u>NON-EXEMPT</u></b>			
Salary Grade U1.N	\$3,034	\$3,762	\$3,949
Salary Grade U2.N	\$3,100	\$3,865	\$4,059
Salary Grade U3.N	\$3,165	\$3,971	\$4,170
Salary Grade U4.N	\$3,223	\$4,087	\$4,291
Salary Grade U5.N	\$3,297	\$4,200	\$4,410
Salary Grade U6.N	\$3,361	\$4,322	\$4,538
Salary Grade U7.N	\$3,429	\$4,442	\$4,665
Salary Grade U8.N	\$3,503	\$4,569	\$4,797
Salary Grade U9.N	\$3,570	\$4,695	\$4,932
Salary Grade U10.N	\$3,644	\$4,824	\$5,064
Salary Grade U11.N	\$3,715	\$4,947	\$5,192
Salary Grade U12.N	\$3,788	\$5,092	\$5,348
Salary Grade U13.N	\$3,859	\$5,237	\$5,502
Salary Grade U14.N	\$3,946	\$5,386	\$5,656
Salary Grade U15.N	\$4,031	\$5,529	\$5,805
Salary Grade U16.N	\$4,126	\$5,684	\$5,967
Salary Grade U17.N	\$4,214	\$5,826	\$6,117
Salary Grade U18.N	\$4,306	\$5,982	\$6,283
Salary Grade U19.N	\$4,404	\$6,133	\$6,442
Safety Assistant			
Salary Grade U20.N	\$4,521	\$6,332	\$6,649

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U21.N	\$4,650	\$6,523	\$6,852
Salary Grade U22.N	\$4,778	\$6,729	\$7,066
Executive Secretary Human Resources Assistant			
Salary Grade U23.N	\$4,904	\$6,932	\$7,277
Salary Grade U24.N	\$5,043	\$7,148	\$7,506
Salary Grade U25.N	\$5,175	\$7,367	\$7,738
Human Resources Technician			
Salary Grade U26.N	\$5,336	\$7,588	\$7,968
Executive Assistant			
Salary Grade U27.N	\$5,489	\$7,811	\$8,201
Salary Grade U28.N	\$5,649	\$8,042	\$8,446
Salary Grade U29.N	\$5,818	\$8,276	\$8,691
Administrative Assistant Safety Specialist			
Salary Grade U30.N	\$5,994	\$8,521	\$8,948
Salary Grade U31.N	\$6,172	\$8,778	\$9,216
Human Resources Analyst			
Salary Grade U32.N	\$6,349	\$9,037	\$9,489
Salary Grade U33.N	\$6,534	\$9,300	\$9,766
Network Administrator User Support Administrator			
Salary Grade U34.N	\$6,729	\$9,557	\$10,037
Salary Grade U35.N	\$6,931	\$9,844	\$10,337

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<b>EXEMPT</b>			
Salary Grade U1.E	\$4,879	\$6,268	\$6,581
Salary Grade U2.E	\$5,042	\$6,511	\$6,837
Salary Grade U3.E	\$5,203	\$6,754	\$7,094
Salary Grade U4.E	\$5,365	\$7,014	\$7,363
Salary Grade U5.E	\$5,529	\$7,273	\$7,638
Salary Grade U6.E	\$5,720	\$7,555	\$7,933
Salary Grade U7.E	\$5,903	\$7,835	\$8,225
Salary Grade U8.E	\$6,095	\$8,141	\$8,548
Salary Grade U9.E	\$6,281	\$8,440	\$8,860
Salary Grade U10.E	\$6,490	\$8,759	\$9,197
Asset Systems Analyst Assistant Engineer Customer Service Supervisor Development Services Supervisor Management Analyst Public Affairs Analyst Senior Public Affairs Specialist			
Salary Grade U11.E	\$6,698	\$9,082	\$9,538
Purchasing Supervisor			
Salary Grade U12.E	\$6,915	\$9,432	\$9,901
Financial Analyst Regulatory Compliance Administrator Senior Accountant Senior Water Efficiency Analyst Source Control Program Administrator Water Efficiency Supervisor			
Salary Grade U13.E	\$7,139	\$9,774	\$10,261
GIS Supervisor Legislative Analyst Right of Way Agent Senior Human Resources Analyst Treasury Analyst Water Resources Planner			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U14.E Accounting Supervisor Associate Engineer District Secretary QA/QC Compliance Administrator	\$7,370	\$10,150	\$10,657
Salary Grade U15.E Applications Analyst Automation Programmer Laboratory Supervisor Senior Regulatory Compliance Administrator Senior SCADA Network Administrator Senior Network Administrator	\$7,605	\$10,530	\$11,055
Salary Grade U16.E	\$7,859	\$10,928	\$11,476
Salary Grade U17.E Asset Systems Manager Construction Inspection Manager Customer Service Manager Electrical and Instrumentation Manager Engineer Facilities/Fleet Manager Purchasing Manager Safety Manager	\$8,109	\$11,330	\$11,895
Salary Grade U18.E Automation Manager Collection Systems Manager Construction Services Manager Field Services Manager Natural Resources Manager Public Affairs Manager Regulatory Compliance Manager Senior Applications Analyst Senior Applications Developer Senior Database Administrator User Support Manager Water Efficiency Manager Water Quality Manager	\$8,372	\$11,762	\$12,348
Salary Grade U19.E Manager of Risk & Contracts Administration Mechanical Services Manager Recycled Water Development Manager Treasury Manager Water Resources Manager	\$8,638	\$12,196	\$12,807



	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade U20.E Network and Cybersecurity Manager Operations Manager Senior Engineer	\$8,907	\$12,648	\$13,280
Salary Grade U21.E Controller Manager of Strategic Planning and Analysis	\$9,178	\$13,105	\$13,761
Salary Grade U22.E Applications Manager	\$9,473	\$13,592	\$14,273
Salary Grade U23.E Principal Engineer	\$9,773	\$14,084	\$14,789
Salary Grade U24.E Engineering Manager	\$10,038	\$14,652	\$15,382
Salary Grade U25.E Government Relations Officer/Deputy General Counsel	\$10,348	\$15,206	\$15,965
Salary Grade U26.E	\$10,820	\$16,010	\$16,810
Salary Grade U27.E Director of Administrative Services Director of Human Resources Director of Maintenance Director of Public Affairs Director of Recycling Operations Director of Water Operations Director of Water Quality & Regulatory Compliance Director of Water Resources Treasurer/Director of Risk Management	\$11,315	\$16,859	\$17,700
Salary Grade U28.E	\$11,835	\$17,746	\$18,633
Salary Grade U29.E	\$12,375	\$18,685	\$19,619
Salary Grade U30.E Executive Director of Finance Executive Director of Technical Services Executive Director of Operations Executive Director of Water Policy	\$12,947	\$19,678	\$20,660
Salary Grade U31.E	\$13,591	\$20,793	\$21,832
Salary Grade U32.E	\$14,272	\$21,977	\$23,076
Salary Grade U33.E	\$14,982	\$23,225	\$24,386

	<b>MINIMUM</b>	<b>MAXIMUM</b>	<b>EXCEPTIONAL PERFORMANCE TOP OF RANGE</b>
Salary Grade U34.E	\$15,734	\$24,543	\$27,148
General Manager			

**IRVINE RANCH WATER DISTRICT**  
**MONTHLY SALARY GRADE SCHEDULE**  
**Non-Exempt Supervisors Unit**  
**Effective December 16, 2019**

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<b><u>NON-EXEMPT</u></b>			
Salary Grade S26.N	\$5,336	\$7,588	\$7,968
Salary Grade S27.N	\$5,489	\$7,811	\$8,201
Salary Grade S28.N	\$5,649	\$8,042	\$8,446
Salary Grade S29.N	\$5,818	\$8,276	\$8,691
Salary Grade S30.N	\$5,994	\$8,521	\$8,948
Salary Grade S31.N Facilities Services Supervisor Fleet Supervisor	\$6,172	\$8,778	\$9,216
Salary Grade S32.N Collection Systems Supervisor Mechanical Services Supervisor	\$6,349	\$9,037	\$9,489
Salary Grade S33.N Cross Connection Supervisor Water Maintenance Supervisor	\$6,534	\$9,300	\$9,766
Salary Grade S34.N Construction Inspection Supervisor Automation Supervisor Electrical Supervisor Instrumentation Supervisor	\$6,729	\$9,557	\$10,037
Salary Grade S35.N Operations Supervisor	\$6,931	\$9,844	\$10,337

**IRVINE RANCH WATER DISTRICT**  
**MONTHLY SALARY GRADE SCHEDULE**  
**General Employees Unit**  
**Effective December 16, 2019**

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
<b><u>NON-EXEMPT</u></b>			
Salary Grade 1.N	\$3,028	\$3,755	\$3,942
Salary Grade 2.N	\$3,093	\$3,857	\$4,050
Salary Grade 3.N	\$3,160	\$3,964	\$4,162
Salary Grade 4.N	\$3,217	\$4,078	\$4,282
Salary Grade 5.N	\$3,289	\$4,192	\$4,402
Salary Grade 6.N	\$3,355	\$4,314	\$4,529
	Office Assistant Mail Coordinator		
Salary Grade 7.N	\$3,420	\$4,433	\$4,655
Salary Grade 8.N	\$3,497	\$4,561	\$4,788
Salary Grade 9.N	\$3,565	\$4,686	\$4,920
Salary Grade 10.N	\$3,636	\$4,813	\$5,052
Salary Grade 11.N	\$3,707	\$4,938	\$5,183
	Maintenance Apprentice Material Control Clerk I Utility Worker		
Salary Grade 12.N	\$3,781	\$5,081	\$5,338
Salary Grade 13.N	\$3,851	\$5,228	\$5,488
	Customer Service Specialist I Support Specialist		
Salary Grade 14.N	\$3,938	\$5,374	\$5,643
Salary Grade 15.N	\$4,023	\$5,518	\$5,795
	Collection Systems Technician I Office Specialist		
Salary Grade 16.N	\$4,117	\$5,673	\$5,955
	Accounting Clerk Customer Service Field Technician		

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Metering Systems Technician I Water Maintenance Technician I			
Salary Grade 17.N	\$4,205	\$5,813	\$6,103
Customer Service Specialist II			
Salary Grade 18.N	\$4,296	\$5,971	\$6,268
Material Control Clerk II Senior Support Specialist Water Efficiency Field Technician			
Salary Grade 19.N	\$4,395	\$6,122	\$6,428
Development Services Specialist Purchasing Coordinator Senior Office Specialist			
Salary Grade 20.N	\$4,512	\$6,318	\$6,635
Collection Systems Technician II Engineering Technician I GIS Technician I Operator I Senior Accounting Clerk			
Salary Grade 21.N	\$4,640	\$6,509	\$6,837
Collection Systems CCTV Technician Customer Service Specialist III Senior Customer Service Field Technician			
Salary Grade 22.N	\$4,768	\$6,715	\$7,052
Facilities Services Technician Maintenance Mechanic Metering Systems Technician II Risk Assistant Senior Purchasing Coordinator Vehicle/Equipment Mechanic Water Maintenance Technician II			
Salary Grade 23.N	\$4,893	\$6,918	\$7,263
Senior Water Efficiency Field Technician			
Salary Grade 24.N	\$5,032	\$7,135	\$7,491
Buyer Public Affairs Assistant Recycled Water Specialist Water Loss Prevention Specialist Wetlands Specialist			

	MINIMUM	MAXIMUM	EXCEPTIONAL PERFORMANCE TOP OF RANGE
Salary Grade 25.N Engineering Technician II GIS Technician II Senior Collection Systems CCTV Technician Senior Collection Systems Technician	\$5,164	\$7,354	\$7,723
Salary Grade 26.N Cross Connection Specialist Metering Systems Technician III Water Efficiency Specialist Water Maintenance Technician III Water Resources Specialist	\$5,323	\$7,573	\$7,950
Salary Grade 27.N Accountant Operator II Senior Facilities Services Technician Senior Maintenance Mechanic Senior Water Loss Prevention Specialist Senior Vehicle/Equipment Maintenance Mechanic	\$5,478	\$7,794	\$8,184
Salary Grade 28.N Automation Technician Construction Inspector Electrical Technician Instrumentation Technician Landscape Contracts Administrator Scientist	\$5,639	\$8,027	\$8,429
Salary Grade 29.N Engineering Technician III GIS Technician III Lead Maintenance Mechanic Operator III Public Affairs Specialist Senior Buyer Senior Recycled Water Specialist Senior Wetlands Specialist	\$5,806	\$8,261	\$8,672
Salary Grade 30.N Graphic Design Specialist Risk Analyst Senior Electrical Technician Senior Instrumentation Technician	\$5,982	\$8,504	\$8,931

	<b>MINIMUM</b>	<b>MAXIMUM</b>	<b>EXCEPTIONAL PERFORMANCE TOP OF RANGE</b>
Salary Grade 31.N Information Services Coordinator Payroll Administrator Recycled Water Project Specialist Senior Construction Inspector Senior Water Efficiency Specialist	\$6,158	\$8,761	\$9,197
Salary Grade 32.N Asset Maintenance Coordinator Automation Specialist Environmental Compliance Specialist Process Specialist Senior Scientist Wetlands Scientist	\$6,336	\$9,019	\$9,471
Salary Grade 33.N Operations Coordinator Water Efficiency Analyst	\$6,521	\$9,282	\$9,745
Salary Grade 34.N	\$6,715	\$9,538	\$10,016
Salary Grade 35.N	\$6,917	\$9,824	\$10,316

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December 16, 2019  
Prepared by: S. Garcia / D. Cotton  
Submitted by: C. Clary  
Approved by: Paul A. Cook



## ACTION CALENDAR

### IRWD POLICY ON DISCONTINUING RESIDENTIAL WATER SERVICE

#### SUMMARY:

In September 2018, Senate Bill (SB) 998 (Dodd) was passed, providing new requirements for residential shutoffs due to delinquent payments or non-payment. This bill requires compliance on or after February 1, 2020, and applies to any water agency with more than 200 service connections. SB 998 requires agencies to adopt a written policy and to also provide the policy to customers if their water service is subject to being discontinued due to nonpayment. A summary of the policy is included in the District's Rules and Regulations, and is required to be posted on the District's website. Staff recommends that the Board adopt a resolution approving a policy on the Discontinuing Residential Water Service, in compliance with SB 998.

#### BACKGROUND:

With the passage of SB 998, water agencies are prohibited from discontinuing residential service for non-payment until payment by a customer has been delinquent for at least 60 days. This bill requires that the water agency notify the customer named on the account and provide the customer with the District's policy no less than seven business days before discontinuing service. Residential service may be discontinued no sooner than five business days after the agency posts a final Notice of Intent to Disconnect Service in a conspicuous location at the property.

SB 998 also prohibits residential service from being discontinued under special circumstances if certain conditions are met, including:

- If discontinuing water service would pose a serious threat to the health and safety of a resident;
- If the customer demonstrates that he / she is financially unable to pay for residential service within the normal billing cycle (to qualify, customer must to participate in certain low income programs or certify that they are below 200 percent of the federal poverty level); and
- The customer agrees to a payment arrangement for past due amounts, generally not to exceed 12 months and must pay current charges.

Additionally, service at the residence may not be discontinued if an adult residing at the residence appeals the water bill while it is pending.

IRWD Policy on Discontinuing Residential Water Service:

A proposed policy on Discontinuing Residential Water Service was drafted, and is attached as Exhibit “A”. The Notice of Pending Service Interruption is attached as Exhibit “B”. Both of these documents comply with the requirements of SB 998. Comparisons of the key differences between current and proposed IRWD policy are summarized below:

<b>Requirement</b>	<b>Current IRWD Policy</b>	<b>Proposed IRWD Policy</b>
Minimum number of days before water service may be discontinued after the account is delinquent:	41 days	60 days
Exemptions for non-discontinuation of service:	<ul style="list-style-type: none"><li>• Medical certification; or</li><li>• Agreement to payment plan</li></ul>	<ul style="list-style-type: none"><li>• Medical certification; and</li><li>• Proof of financial hardship; and</li><li>• Agreement to payment plan.</li></ul>
Reconnection Fee	\$70 during normal business hours; \$95 after business hours	Same as current policy unless customer is below 200 percent of poverty line; then limited to \$50 during normal business hours

The new requirements are in addition to the provisions in the existing law. IRWD’s proposed policy will be available in English and translated into any other language spoken by 10 percent or more of the IRWD customers. IRWD will also be required to report the number of annual discontinuations of residential water service for inability to pay; reporting will be done by posting this information on the District’s website and notifying the Board of Directors.

Staff has prepared a resolution, provided as Exhibit “C”, for adopting the policy titled “Discontinuing Residential Water Service”.

FISCAL IMPACTS:

It is expected that the implementation will result in minimal fiscal impact.

ENVIRONMENTAL COMPLIANCE:

None.

COMMITTEE STATUS:

This item was not submitted to a Committee.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2019-

RESOLUTION OF THE BOARD OF DIRECTORS  
OF IRVINE RANCH WATER DISTRICT  
APPROVING A POLICY ON DISCONTINUING  
RESIDENTIAL WATER SERVICE

LIST OF EXHIBITS:

Exhibit A – Policy on Discontinuing of Residential Water Service

Exhibit B – Notice of Pending Service Interruption

Exhibit C – Resolution

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## Exhibit "A"

### IRWD Policy on Discontinuing Residential Water Service – DRAFT

1. **Application of Policy.** This Policy on Discontinuing Residential Water Service ("Policy") shall apply to all District accounts for residential water service; it shall not apply to any accounts for non-residential service. To the extent this Policy conflicts with any other rules, regulations, or policies of the District, this Policy shall control.
2. **Contact Information.** For questions or assistance regarding your water bill, please contact Customer Service at (949) 453-5300. Customers may also visit the District's office in person, Monday through Friday, from 8 a.m. to 5 p.m., except on District holidays. The District's office is located at 15600 Sand Canyon Ave Irvine, Ca. 92618.
3. **Billing Procedures.** Water service charges are payable to the District once every month or at such other frequency as determined by the Board of Directors from time to time. All bills for water service are due and payable twenty-five (25) days after mailing or e-mailing by the District. Any bills not paid within such period are considered delinquent.
4. **Discontinuing Water Service for Nonpayment.** If a bill is delinquent for at least sixty (60) days, the District may discontinue water service to the service address.

4.1 Written Notice to Customer. The District will provide a mailed notice to the customer of record at least fifteen (15) days before water service may be discontinued. The notice will contain:

- (a) name and address of the customer;
- (b) amount of the delinquency;
- (c) date by which payment or payment arrangements must be made to avoid discontinuing service;
- (d) procedure by which the customer may initiate a complaint or request an investigation or appeal concerning service or charges;
- (e) a description of the procedure by which the customer may request a payment arrangement, which may include an extension, or payment schedule; and
- (f) telephone number where the customer may request a payment arrangement or receive additional information from the District.

4.2 Written Notice to Occupants or Tenants.

(a) IRWD will also send a notice to the occupants living at the service address at least fifteen (15) days before discontinuing water service under the following circumstances: (i) the District furnishes individually metered service to a single-family dwelling, multi-unit residential structure, or mobile home park and the owner, manager or operator is the customer of record; or (ii) the customer of record's mailing address is not the same as the service address. The notice which is addressed to the "Occupant," will

contain the information required in Section 4.1 above, and will inform the residential occupants that they have the right to become customers of the District without being required to pay the amount due on the delinquent account. Terms and conditions for occupants to become customers of the District are provided in Section 8 below.

(b) If IRWD furnishes water to residences through a master meter, the District will make a good faith effort, at least fifteen (15) days prior to termination, to notify the residential occupants that the account is in arrears and the service will be terminated on a date specified in the notice. The District will provide notice by either: (i) mailing the notice to each residential unit or (ii) posting the notice on the door of each residential unit. If providing notice to each unit is impracticable or infeasible, the District will post two (2) copies of the notice in each accessible common area and at each point of access to the structure or structures; or make some other good faith, reasonable effort to provide written notice to the occupants. The notice which is addressed to the "Occupant," will contain the information required in Section 4.1 above and will inform the residential occupants that they have the right to become customers of the District without being required to pay the amount due on the delinquent account. Terms and conditions for occupants to become customers of the District are provided in Section 8 below.

4.3 Telephonic Notice. IRWD will also make a reasonable, good faith effort to contact the customer of record or an adult person living at the premises of the customer by telephone at least seven (7) days before discontinuation of service. The District will offer to provide a written copy of this Policy and discuss options to avert discontinuation of water service for nonpayment, including the possibility of an extension or other payment arrangement.

4.4 Posting of Notice at Service Address. If IRWD is unable to make contact with the customer or an adult person living at the service address by telephone, and the written notice is returned as undeliverable, the District will make a good faith effort to leave a Notice of Pending Service Interruption and a copy of this Policy in a conspicuous place at the service address. The notice and copy of this Policy will be left at the residence before discontinuing service. The notice shall include:

- (a) name and address of the customer;
- (b) amount of the delinquency;
- (c) date by which payment or payment arrangements must be made to avoid discontinuing service; and
- (d) telephone number where the customer may request a payment arrangement or receive additional information from the District.

4.5 Circumstances Under Which Service Will Not Be Discontinued. IRWD will not discontinue residential water service for nonpayment under the following circumstances:

- (a) During an investigation by the District of a customer dispute or complaint under Section 5.1 below; or

- (b) During the period of time in which a customer's payment is subject to a District-approved extension or payment arrangement under Section 6 below, and the customer remains in compliance with the approved payment arrangement and must remain current on all charges.

4.6 Special Medical and Financial Circumstances under Which Services Will Not Be Discontinued.

- (a) IRWD will not discontinue water service if all of the following conditions are met:
  - (i) The customer, or a tenant of the customer, submits to the District, the certification of a licensed primary care provider that discontinuation of water service will be life threatening to, or pose a serious threat to the health and safety of a resident of the premises where residential service is provided; and
  - (ii) The customer demonstrates that he or she is financially unable to pay for residential service within the District's normal billing cycle. The customer is deemed financially unable to pay during the normal billing cycle if: (a) any member of the customer's household is a current recipient of CalWORKs, CalFresh, general assistance, Medi-Cal, Supplemental Security Income/State Supplementary Payment Program, or California Special Supplemental Nutrition Program for Women, Infants, and Children, or (b) the customer declares under penalty of perjury that the household's annual income is less than 200 percent of the federal poverty level; and
  - (iii) The customer is willing to enter into a payment arrangement, including an extension with respect to the delinquent charges.
- (b) For any customers who meet all of the above conditions, the District shall offer the customer one of the following options as selected by the District at its discretion: (1) an extension of the payment period or (2) or an alternative payment arrangement. The District's Customer Service Manager or their designee will select the most appropriate payment arrangement, taking into consideration the information and documentation provided by the customer, as well as the District's payment needs.
- (c) The customer is responsible for demonstrating that the conditions in subsection (a) have been met. Upon receipt of documentation from the customer, the District will review the documentation within seven (7) days and: (1) notify the customer of the payment arrangement (2) request additional information from the customer; or (3) notify the customer that he or she does not meet the conditions in subsection (a).

- (d) IRWD may discontinue water service if a customer who has been granted an payment arrangement under this section, fails to do any of the following for sixty (60) days or more: (a) pay unpaid charges by the extended payment date; (b) pay any amount due under an alternative payment schedule; or (d) pay current charges for water service. The District will post a final Notice of Pending Service Interruption to disconnect service in a prominent and conspicuous location at the service address at least five (5) business days before discontinuation of service. The final notice will not entitle the customer to any investigation or review by the District.

4.7 Time of Discontinuing Service. IRWD will not discontinue water service due to nonpayment on a Friday, Saturday, Sunday, legal holiday, or at any time during which the District's office is not open to the public.

4.8 Restoration of Service. Customers whose water service has been discontinued may contact Customer Service by telephone at (949) 453-5300 or in person at the District Offices located at 15600 Sand Canyon Ave Irvine, Ca. 92618 regarding restoration of service. Restoration shall be subject to payment of: (a) any past-due amounts, including applicable interest or penalties; (b) any reconnection fees, subject to the limitations in Section 7.1, if applicable.

## 5. **Procedures to Contest or Appeal a Bill.**

5.1 Time to Initiate Complaint or Request an Investigation. A customer may initiate a complaint or request an investigation regarding the amount of a bill within fifteen (15) days of receiving a disputed bill. For purposes of this Section 5.1 only, a bill shall be deemed received by a customer five (5) days after mailing or for customers who receive e-bills, receipt is deemed immediately upon e-mailing.

5.2 Review by the District. A timely complaint or request for investigation shall be reviewed by the Customer Service Manager, or the Manager's designee, who shall provide a determination to the customer. The review will include consideration of whether the customer may receive an extension or an alternative payment schedule. The District may, in its discretion, review untimely complaints or requests for investigation; however, such complaints or requests are not subject to appeal.

## 6. **Extensions and Other Payment Arrangements.**

6.1 Time to Request an Extension or Other Payment Arrangement. If a customer is unable to pay a bill during the normal payment period, the customer may request an extension or a payment arrangement described in this Section 6.

6.2 Payment Arrangement. If approved by the District, a customer's payment of his or her unpaid balance may be evenly divided for a period of twelve (12) months after the balance was originally due. The Customer Service Manager or their designee can extend payment arrangements longer than 12 months at his or her discretion. The customer shall pay the full unpaid balance by the date set by the District and must remain current on all charges accruing during any subsequent billing periods. The extended payment date will be set forth in writing and provided to the customer.



6.3 Failure to Comply. If a customer has been delinquent for 60 days or more, and has been granted a payment arrangement under this Section 6 and fails to: (1) pay the unpaid charges by the extension date; or (2) pay an amount due under a payment arrangement by its due date, then the District may terminate water service. The District will post a final Notice of Pending Service interruption in a prominent and conspicuous location at the service address at least five (5) business days before discontinuation of service. The final notice will not entitle the customer to any investigation or review by the District.

## 7. **Specific Programs for Low-Income Customers.**

7.1 Reconnection Fee Limits and Waiver of Interest. For residential customers who demonstrate to the District a household income below 200 percent of the federal poverty line, the District will:

- (a) Limit any reconnection fees during normal operating hours to fifty dollars (\$50), and during non-operational hours to one hundred fifty dollars (\$150). The limits will only apply if the District's reconnection fees actually exceed these amounts. These limits are subject to an annual adjustment for changes in the Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers (CPI-U) beginning January 1, 2021.
- (b) Waive interest charges on delinquent bills **once** every 12 months.

7.2 Qualifications. The District will deem a residential customer to have a household income below 200 percent of the federal poverty line if: (a) any member of the household is a current recipient of CalWORKs, CalFresh, general assistance, Medi-Cal, Supplemental Security Income/State Supplementary Payment Program, or California Special Supplemental Nutrition Program for Women, Infants, and Children, or (b) the customer declares that the household's annual income is less than 200 percent of the federal poverty level.

## 8. **Procedures for Occupants or Tenants to Become Customers of the District.**

8.1 Applicability. This Section 8 shall apply only when the property owner, landlord, manager, or operator of a residential service address is listed as the customer of record and has been issued a Notice of Pending Service Interruption to discontinue water service due to nonpayment.

8.2 Agreement to District Terms and Conditions of Service. The District will make service available to the actual residential occupants if one or more occupants agrees to the terms and conditions of service and meets the requirements of the District's rules and regulations.

8.3 Verification of Tenancy. To be eligible to become a customer without paying the amount due on the delinquent account, the occupant shall verify that the delinquent account customer of record is or was the landlord, manager, or agent of the dwelling. Verification may include, but is not limited to, a lease or rental agreement, rent receipts, a government document indicating that the occupant is renting the property, or

information disclosed pursuant to Section 1962 of the Civil Code, at the discretion of the District.

9. **Language for Certain Written Notices.** All written notices under Section 4 of this Policy shall be provided in English, Spanish, Chinese, Tagalog, Vietnamese, Korean, and any other language spoken by ten percent (10%) or more people within the District's service area.

10. **Other Remedies.** In addition to discontinuation of water service, the District may pursue any other remedies available in law or equity for nonpayment of water service charges, including, but not limited to: securing delinquent amounts by filing liens on real property, filing a claim or legal action, or referring the unpaid amount to collections. In the event a legal action is decided in favor of the District, the District shall be entitled to the payment of all costs and expenses, including attorneys' fees and accumulated interest.

11. **Discontinuing Water Service for Other Customer Violations.** IRWD reserves the right to discontinue water service for any violations of District ordinances, rules, or regulations other than nonpayment.

12. **Fees and Charges Incurred.** Except as otherwise expressly stated in this Policy, any fees and charges incurred by a customer under any other rules, regulations, or policies of the District, including, but not limited to, delinquent charges, shall be due and payable as set forth therein.

## EXHIBIT "B"

### Notice of Pending Service Interruption – DRAFT

To avoid service interruption, please pay the full amount shown on the attached notice. If service is interrupted for non-payment, it will be restored only after the past due amount has been paid. You will also be charged a restoration fee of \$70 during business hours or \$95 after hours.

**If you are unable to pay this bill, you may request a payment arrangement prior to service interruption.** Generally, the repayment option offered will result in repayment of outstanding balances within twelve months.

To request a payment arrangement, please call Irvine Ranch Water District's Customer Service department at (949) 453-5300 during business hours Monday through Friday 8 a.m. until 5 p.m.

The discontinuation of water service can be suspended if an adult living at the residence formally appeals the water bill or when acceptable proof of medical **and** financial circumstances are submitted to the District and the customer agrees to a payment arrangement.

1. To formally appeal the amount charged, call IRWD Customer Service Department at (949) 453-5300. Your service will not be terminated while the appeal is under review.
2. At a minimum, acceptable proof of medical and financial circumstances may include, but is not limited to:
  - a. A certification from primary care provider that discontinuing water service would be life threatening or pose a serious threat to the health and safety of a resident of the premises; and
  - b. Evidence that the customer is financially unable to pay within the normal billing cycle. The customer may demonstrate inability to pay during the normal billing cycle by showing that someone in the customer's household is a current recipient of CALWORKS, CalFresh, General Assistance, Medi-Cal, Supplemental Security Income/State Supplementary Payment Program, or California Special Supplement Nutrition Program for Women, infants, and children or by declaring that the household's income is less than 200% of the federal poverty level.

If a customer fails to comply with the payment arrangement, or does not pay the current residential service charges while having a payment arrangement, the District may discontinue water service. The District will post a final notice of intent to disconnect service in a prominent and conspicuous location at the property at least 5 business days before the disconnection.

If a customer wishes to restore service after it has been disconnected, and they demonstrate that the household income is below 200% of the federal poverty level, the District will limit the customer's restoration fees to no more than \$50 during business hours and up to \$95 after hours.

If you are a tenant at this address and your service is individually metered or meets other requirements, you have the right to be responsible for your own water service in accordance with the requirements of law and Irvine Ranch Water District's Rules and Regulations. If you wish to start new service as a tenant you can do so without paying the delinquent amount due from the landlord, manager, or agent of the residence, if you provide verification that the delinquent account holder is or was the landlord, manager, or agent of the residence. Verification may include but is not limited to, a lease or rental agreement, rent receipts, or a government document indicating you are renting the property.

EXHIBIT “C”

RESOLUTION NO. 2019 –

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT  
ADOPTING A POLICY ON  
DISCONTINUING RESIDENTIAL WATER SERVICE

The Water Shutoff Protection Act (SB 998), codified at Health and Safety Code Section 116900 et seq. (the “**Act**”) was enacted in 2018. The Act requires Irvine Ranch Water District (“**District**”), as an urban and community water system, to have a written policy on discontinuing residential water service consistent with the Act and effective by February 1, 2020.

The Act, which only applies to residential water service, provides that the water provider cannot discontinue residential water service until a customer is at least 60 days delinquent in paying service charges or 60 days delinquent in making a payment due under a payment arrangement.

The Act also provides that a water provider must offer extensions or payment arrangements, limit reconnection fee amounts to a statutorily defined amount, and annually waive interest charges on late payments for certain low-income customers.

The Policy on Discontinuing Residential Water Service (the “**Policy**”), attached as Exhibit “A”, is intended to comply with all provisions of the Act.

The Board of Directors of the Irvine Ranch Water District therefore RESOLVES as follows:

Section 1. The District hereby adopts the Policy on Discontinuing Residential Water Service attached as Exhibit “A.”

ADOPTED, SIGNED AND APPROVED on December 16, 2019.

\_\_\_\_\_  
President/Vice President  
IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

\_\_\_\_\_  
Secretary/Assistant Secretary  
IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

APPROVED AS TO FORM:

By \_\_\_\_\_  
District Counsel

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December 16, 2019  
Prepared and  
submitted by: C. Compton  
Approved by: Paul A. Cook



## ACTION CALENDAR

### REVIEW OF 2019 GOVERNMENT RELATIONS ACTIVITIES AND 2020 LEGISLATIVE AND REGULATORY ISSUES PLANNING

#### SUMMARY:

This report provides a review of IRWD's 2019 legislative and regulatory priorities and government relations activities. It also provides an overview of expected 2020 legislative and regulatory issues in Washington, D.C., Sacramento, and regionally. Also described are proposals that the District's associations and stakeholders are sponsoring. The report proposes an initial 2020 staff resource allocation plan for legislative and regulatory issues of importance to IRWD in the coming year. Staff recommends that the Board provide input on the proposed 2020 regional, state and federal legislative issues of interest to IRWD, and receive and file the proposed Initial 2020 Legislative and Regulatory Resource Allocation Plan and the Legislative / Regulatory Issues and Activities of High Concern to IRWD in 2020.

#### BACKGROUND:

##### 2019 IRWD Priorities and Activities:

In November 2018, the Board reviewed an overview of expected 2019 legislative issues in Washington, D.C. and Sacramento, including proposals that the District's statewide associations we were considering for introduction. At that time, the Board adopted the Initial 2019 Legislative and Regulatory Resource Allocation Plan and the Legislative / Regulatory Issues and Activities of High Concern to IRWD in 2019, which guided the District's governmental relations activities this past year.

The 2019 priorities authorized staff to oppose any statewide tax on water inconsistent with the Board's adopted policy, and to actively engage in the discussions related to implementation of the "Making Water Conservation a California Way of Life" legislation. Additionally, the priorities sought recognition of emergency water supplies, engagement in the discussions surrounding water and sewage rates, and other proposed charges, in order to protect IRWD's ability to design and use its water budget-based tiered rate structure, and engagement with the State Water Resources Control Board and Department of Water Resources (DWR) on policy, regulatory and permit issues of concern to IRWD. Over the past year, staff and IRWD's state legislative and regulatory advocates worked on each of these issues and other issues of importance to the District including legislation related to the Surplus Land Act, and a variety of other regulatory issues.

At the federal level, staff and IRWD's federal legislative advocate engaged on the Bureau of Reclamation's Title XVI Water Reclamation and Reuse Program, and advocated for the reauthorization of the federal water storage program. Additionally, staff and IRWD's federal legislative advocate began implementation of a multi-year strategy to obtain federal funding for the Kern Fan Groundwater Storage Project.

At the local level, IRWD continued to work to build stronger relationships with its partner agencies and community stakeholders. Additionally, staff worked to seek amendments to the South Coast Air Quality Management District's proposed amendments to Rule 1403. Rule 1403 governs construction and demolition activities that involved materials containing asbestos. The amendments sought by IRWD to Rule 1403 would help mitigate the proposed amended Rule's impact on District operations.

The District also approached the Santa Ana Regional Water Quality Control Board again regarding the use of recycled water in decorative lakes. The conversations with the Regional Board regarding adjusting storm-induced overflow protections and expanding the use of recycled water in decorative lakes will continue into 2020.

#### Expected 2020 Federal Legislative and Regulatory Issues:

While it is expected that in 2020 Congress will work on a number of issues of interest to the water and wastewater communities, final action on policy changes, authorizations or appropriations sought by these communities may be challenging given Congress' attention on presidential impeachment and the upcoming primary and general elections. Despite the challenging political environment for obtaining bicameral action on legislation before Congress, staff and the District's federal advocates will continue to seek progress on the key issues of interest to IRWD.

Staff discussed the expected 2020 political environment and federal issues with the Water Resources Policy and Communications Committee. Among the federal issues staff discussed with the Committee were:

- Reauthorization of the Water Storage Program;
- Authorization and appropriation of funding for a Bureau of Reclamation work plan;
- Federal funding for the Kern Fan Groundwater Storage Project;
- Authorization of a 2020 Water Resources Development Act (WRDA); and
- Possible creation of a federal dam safety program.

#### Expected 2020 Statewide Legislative Issues:

As is the case at the beginning of each legislative year, it is expected that the California Legislature and State regulatory agencies will take up a number of issues of interest to the water and wastewater communities in 2020. Staff discussed the expected 2020 political environment and state issues with the Water Resources Policy and Communications Committee.

More detailed information is also provided below on several expected issues of significant importance to the District.



*“Making Water Conservation a California Way of Life”:*

In response to the five-year statewide drought, Governor Brown issued Executive Order B-29-15 on April 1, 2015, mandating a 25 percent reduction in statewide potable water use between June 2015 and February 2016. On May 5, 2015, the State Board adopted an Emergency Regulation to implement the provisions of the Executive Order. On May 9, 2016, Governor Brown issued Executive Order B-37-16, which required the state to transition from the temporary restrictions implemented during the drought to a statewide long-term conservation framework that aligns with the objective of the California Water Action Plan to “Make Water Conservation a California Way of Life.” In 2018, in response to the Governor’s call to “Make Water Conservation a California Way of Life,” the legislature passed AB 1668 (Friedman, D-Glendale) and SB 606 (Hertzberg, D-Van Nuys). As enacted, the bills:

- Give the State Board one-time authority to set certain water use efficiency standards and implement water use objectives/targets;
- Authorize the State Board to establish guidelines and methodologies to identify how urban water use objectives/targets are to be calculated and reported;
- Require that urban retail water suppliers annually calculate an urban water use objective and report on accomplishments;
- Establish indoor water use efficiency standards through statute at 55 gallons per person daily (GPCD) until 2025, establish the indoor standard at 52.5 GPCD until 2030 and at 50 GPCD after 2030;
- Authorize the State Board to establish outdoor water use efficiency standards for residential landscapes and commercial, industrial and institutional (CII) irrigation based on the principles of the Model Water Efficient Landscape Ordinance;
- Authorize the State Board to establish performance measures for CII water use. Process water was excluded from the performance measures;
- Grant permissive, not mandatory, authority to the State Board to establish variances to the efficiency standards;
- Provide up to a 15 percent bonus for potable reuse supplies;
- Grant the State Board with new enforcement powers; and
- Modify the Urban Water Management Planning Act to require urban water suppliers to develop enhanced Urban Water Management Plans, enhanced Water Shortage Contingency Plans, Drought Risk Assessments, and an annual Water Supply and Demand Assessment.

In 2020, the State Board and DWR’s efforts to implement these two bills is expected to be substantial. As IRWD was active in the policy discussions surrounding the drafting of AB 1668 and SB 606, the District will continue to be active in the implementation of the two bills with the goal of ensuring successful statewide implementation of the legislation. As part of the many issues that need to be addressed in the implementation process, IRWD will continue to seek recognition for emergency supplies – an issue not addressed in the “Making Conservation a Way of Life” legislation.

Additionally, in 2020, the State Board will likely consider adopting several different regulations related reporting requirements for water agencies, and other regulations related to the implementation of any water conservation legislation passed by the Legislature. IRWD will continue to engage productively on water conservation in California and any related regulations before the State Board.

*Recycled Water Use in Decorative Lakes and Storm-induced Overflow Restrictions:*

As California continues to deal with increasing demands on its fresh water resources, regulatory challenges related to storm-induced overflow restrictions on recycled water impoundments continue to limit water suppliers' abilities to expand recycled water use. One such use is the use of recycled water in decorative lakes. While the use is permitted, storm-induced overflow restrictions limit the use of recycled water in these decorative bodies of water.

In order to avoid a discharge of recycled water during the wet weather season and to ensure compliance with State Board policies, some Regional Boards require the drawdown of water levels stored in these impoundments to reduce the likelihood of a storm-induced overflow. These storm-induced overflow restrictions affect small recycled water impoundments (e.g., frost protection ponds, decorative lakes, golf course ponds) in addition to large recycled water storage facilities. In the case of very small impoundments, storm-induced overflow restrictions often limit use of the impoundment during winter months and discourage customers from using recycled water.

Over the years, IRWD has heard from homeowners associations interested in using recycled water to refill their decorative lakes. The District has explained the regulatory challenges to these HOAs and IRWD's efforts to work with the State Board to find a solution to mitigate the impact of storm-induced overflow restrictions. Staff has continued conversations with the Regional Board on the use of recycled water in decorative lakes to replace evaporative water losses. Staff will continue to work towards a solution to this issue.

*Other State Issues of Interest to IRWD:*

In addition to the two issues discussed above, staff discussed the following state legislative and regulatory issues with the Committee:

- Proposals to limit fees charged to housing developments, including water and wastewater connection fees;
- Legislation related to the Surplus Land Act;
- Water Resilience Portfolio;
- Emergency supplies;
- Water and resilience bond(s);
- Wildfire response and Public Safety Power Shut-offs (PSPS) impacts;
- Safe Drinking Water Fund implementation;
- Low Income Rate Assistance Program funding proposals;

- Proposals related to contaminants of emerging concern (CECs) and per- and polyfluoroalkyl substances (PFAS);
- Limitations on ocean discharges;
- 2020 efforts related to recycled water;
- Treatment of biosolids under the SB 1383 regulations; and
- State Board and other State agency regulations.

Expected 2020 Government Relations Activities and Staff Resource Allocations:

Staff will present a proposed list of issues of high concern to IRWD for 2020, which is attached as Exhibit “A”, and a proposed initial allocation plan for allocating 2020 staff resources to legislative and regulatory issues, which is attached as Exhibit “B”. The allocation will provide guidance to staff for committing District and outside resources.

Expected 2020 Association Proposals:

IRWD’s association and industry partners are in the process of completing their 2020 legislative planning. A summary of those planning efforts is provided below:

*Association of California Water Agencies (ACWA):*

ACWA held its 2020 legislative planning meeting on October 25, 2019. The ACWA State Legislative Committee considered three proposals for sponsorship in 2020, and decided to sponsor two of the proposals. This next year, ACWA will be sponsoring legislation related to PSPS events and zero-carbon energy sources. As both of these proposals take shape and are further refined, staff will provide updates to the Committee and the Board.

*Bioenergy Association of California (BAC):*

The Bioenergy Association of California annual planning, development of its legislative priorities and possible legislative proposals will occur at its membership meeting on December 10. Staff will provide an update on new developments.

*California Municipal Utilities Association (CMUA):*

CMUA held its 2020 legislative and regulatory planning meeting on November 13. The CMUA Legislative Committee considered sponsorship of five proposals. In 2020, CMUA will be considering sponsoring legislation related to Notification Levels/Response levels, PSPS events, CECs, drought planning for small water systems, and metallic balloons. As the proposals are more clearly defined, staff will provide the Committee and Board with updates, as appropriate.

*California Association of Sanitation Agencies (CASA):*

CASA has not yet met to discuss its 2020 legislative and regulatory efforts. The planning meeting will be held on December 13. As of the writing of this report, no specific proposals or topics have been released for consideration at the meeting although the association will continue to pursue legislation related to flushable wipes labeling. Staff will provide an update on any new developments.

*California Special Districts Association (CSDA):*

CSDA held its 2020 legislative and regulatory planning meeting on October 24, 2019. CSDA considered sponsorship of two proposals. The first was sponsorship of a joint resolution recognizing Special Districts Week and the second relates to the repeal of unfunded State mandates. Staff will provide updates to the Committee and the Board, as these proposals move forward.

*WateReuse California:*

The WateReuse Association of California has not met to discuss its 2020 legislative and regulatory efforts. Staff will provide the Committee and the Board with an oral update on any new developments.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on December 9, 2019.

RECOMMENDATION:

THAT THE BOARD PROVIDE INPUT ON THE PROPOSED 2020 REGIONAL, STATE AND FEDERAL LEGISLATIVE ISSUES OF INTEREST TO IRWD, AND RECEIVE AND FILE THE PROPOSED “INITIAL 2020 LEGISLATIVE AND REGULATORY RESOURCE ALLOCATION PLAN” AND THE “LEGISLATIVE / REGULATORY ISSUES AND ACTIVITIES OF HIGH CONCERN TO IRWD IN 2020.”

LIST OF EXHIBITS:

Exhibit “A” – Legislative / Regulatory Issues and Activities of High Concern to IRWD in 2020  
Exhibit “B” – Proposed Initial IRWD’s 2020 Legislative and Regulatory Resource Allocation Plan

## EXHIBIT “A”

### LEGISLATIVE / REGULATORY ISSUES AND ACTIVITIES OF HIGH CONCERN TO IRWD IN 2020

As a state and federal leader in water resources public policy and governance, the IRWD works to promote policy initiatives that allow the District, along with other water purveyors in California, to enhance the quality and reliability of water supplies throughout the state. While IRWD will engage in a number of legislative and regulatory issues of interest to the District, the following are specific issues and activities of high concern to IRWD in 2020:

#### 2020 Federal Issues and Activities of High Concern:

- 1) Seek federal funding for the Kern Fan Groundwater Storage Project.
- 2) Advocate for the reauthorization of the federal Water Storage Program and an increased funding authorization for the program.
- 3) Advocate that any Bureau of Reclamation work plan authorized by Congress include funding for water storage projects.
- 4) Within the Water Resources Development Act, seek the creation of a federal dam safety program to provide federal funding to improve dam safety and modernization at reservoirs used for water supply.

#### 2020 State Issues and Activities of High Concern:

- 1) Protect IRWD’s various revenue sources and method of setting rates and other charges in order to ensure that the District can continue to provide high quality services to its customers at low rates. Specifically, retain the District’s ability to set cost-based connections fees, to design and use its water budget-based rate structure, and to earn an adequate return on its real property investments.
- 2) Actively engage in the implementation of “Making Water Conservation a California Way of Life” legislation, including implementation of SB 555 which requires the State Water Resources Control Board to set a water loss performance standard by July 1, 2020.
- 3) Seek regulatory language that recognizes the importance of emergency water supplies in water resiliency, permits pre-emergency designation of such supplies, and protects their use during droughts or other water shortages. Seek State agency action consistent with the Initial Actions proposed in IRWD’s Water Resilience Policy Paper.
- 4) Engage in the discussions surrounding California water resiliency advocating that IRWD’s Water Resilience Portfolio principles and the “initial actions” contained in the policy paper are implemented either in the Governor’s Water Resilience Portfolio or through other means, including in any resiliency bond passed in 2020.
- 5) Consistent with the Board’s adopted policy on a statewide public goods charge, oppose a statewide tax on water for Low Income Rate Assistance or to fund other resiliency efforts.
- 6) Engage with the State Board and the Department of Water Resources on policy, regulatory and permits issues of concern to IRWD.

2020 Regional Issues and Activities of High Concern:

- 1) Seek amendments to the South Coast Air Quality Management District's Proposed Amended Rule 1403 to clarify the application of the rule and to mitigate operational impacts on utilities with underground infrastructure while protecting public health during utility construction and demolition activities involving asbestos containing materials.
- 2) Engage with the Santa Ana Regional Water Quality Control Board and community stakeholders to discuss adjusting storm-induced overflow protections and expanding the use of recycled water in decorative lakes.

## EXHIBIT “B”

### DRAFT

## IRWD’s Initial 2020 Legislative and Regulatory Resource Allocation Plan

**PLEASE NOTE:** The proposed initial resource allocations are aimed at balancing the importance of an issue to IRWD, the projected level of District resources available to work on the issue, and the likelihood that the issue will be raised and the District will be able to shape the policy, legislative and regulatory discussions or outcomes related to the issue in 2020. The allocation of District resources may change over the course of the year, based on continued input from the Water Resources Policy and Communications Committee and the Board of Directors. The allocation categories are intended to reflect the following expected levels of resource use:

- Very High - IRWD’s resource allocation would be significant. Staff and IRWD’s legislative advocates would dedicate a larger portion of their overall advocacy efforts to the issues designated “Very High”, and would actively seek to be a key stakeholder shaping the policy, legislative or regulatory discussions related to those issues.
  
- High - IRWD’s resource allocation would be considerable. Staff and IRWD’s legislative advocates would work to create strategic opportunities to shape the policy, legislative or regulatory discussions and outcomes related to issues designated “High.”
  
- Moderate - IRWD’s resource allocation would be modest. Staff and IRWD’s advocates would actively engage in association and industry conversations on issues designated “Moderate” but would expect to work largely through issue-specific coalitions on these issues. Staff and IRWD’s advocates would work to identify and capitalized on opportunities to shape narrow aspects of a policy, legislative or regulatory outcome related to such issues.
  
- Low - IRWD’s resource allocation would be low. Staff and IRWD’s advocates would track policy, legislative and regulatory discussions and outcomes related to issues designated “Low” and would continue to seek positive outcomes for the District through IRWD’s association and industry partners. Staff and IRWD’s advocates would work on such issues should resources be available. For issues that are currently not expected to be acted upon legislatively or regulatorily this next year and are given a “Low” initial allocation, staff will reevaluate the allocation when action appears likely and increased it, if appropriate.

<b>DRAFT</b> Expected 2020 Legislative and Regulatory Issues	Proposed Allocation of IRWD Resources
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<u>FEDERAL ISSUES</u>	
<b>Kern Fan Groundwater Storage Project</b> – Seek federal funding for the project by engaging with the Bureau of Reclamation and Congress on the project.	<b>Very High</b>
<b>Bureau of Reclamation’s Work Plan</b> – Advocate for the inclusion of water storage and other water resources important to IRWD in any authorization for a Bureau of Reclamation work plan.	<b>Very High</b>
<b>Water Storage Program Reauthorization</b> – Advocate for the reauthorization of the federal Water Storage Program and an increased funding authorization for the program.	<b>Very High</b>
<b>Dam Safety Program</b> – Within WRDA, support federal investment in dam safety and the modernization of dams important to water supplies.	<b>High</b>
<b>Bureau of Reclamation’s Title XVI, Water Reclamation and Reuse Program, Reauthorization</b> – Advocate for the reauthorization of Title XVI and an increased funding authorization for the Water Reclamation and Reuse Program.	<b>Moderate</b>
<b>Clean Water Act Definition of “Waters of the U.S.”</b> – Support efforts to modify the definition of “Waters of the U.S.” to limit impacts to IRWD, including IRWD’s reservoirs. Obtain a “Waters of the U.S.” exemption for the constructed treatment wetlands and IRWD facilities.	<b>Moderate</b>
<b>PFAS</b> – If PFAS are to be designated as a “hazardous substance” under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), advocate for an exemption from liability for water and wastewater utilities.	<b>Moderate</b>
<b>Lead and Copper Rule</b> – Advocate that the U.S. Environmental Protection Agency’s revision to the Lead and Copper Rule effectively protect public health while limiting the annual testing burden on water agencies and seek modification to the proposed school and childcare facility testing schedule.	<b>Moderate</b>
<b>Syphon Reservoir Improvement Project</b> – Engage with the Bureau of Reclamation and Congress staff on funding the project.	<b>Moderate</b> <i>*Staff proposes that the resource allocation be changed to Very High if the project is eligible for other federal funding programs, or if additional actions are needed to ensure the project is awarded Title XVI funding.</i>
<b>Advanced Refundings</b> – Advocate for the tax-exempted status of local government advanced refundings to be restored.	<b>Low</b>
<b>Atmospheric River Research</b> – Advocate for federal programs and funding for atmospheric river research aimed at improving the U.S. Army Corps of Engineers’ and Bureau of Reclamation’s reservoir operations.	<b>Low</b>
<b>Delta Conveyance Implementation</b> – Advocate for a change in the operation of the Delta, consistent with the co-equal goals of ecosystem protection and water supply reliability; seek the federal actions necessary to implement a permanent solution in the Bay Delta.	<b>Low</b>



<b>DRAFT</b> <b>Expected 2020 Legislative and Regulatory Issues</b>	<b>Proposed Allocation of IRWD Resources</b>
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<b>Environmental Infrastructure Projects</b> – Advocate for legislative clarification that water resources projects and water resources development projects be considered environmental infrastructure projects and eligible for consideration under the Water Resources Development Act. Advocate for a broad definition of water resources projects and water resources development projects which includes water supply, drinking water projects, surface water protection and development programs, and wastewater infrastructure projects that increase water supply reliability such as water recycling, desalination, and stormwater collection projects.	<b>Low</b>
<b>Reservoir Reoperation</b> – Advocate for appropriate language requiring the U.S. Army Corps of Engineers and Bureau of Reclamation to consider reoperation of a reservoir when requested to do so by a water agency downstream of the reservoir, and language allowing a water agency downstream of the reservoir to propose and fund improvements in reservoir operations, if it is in its interest.	<b>Low</b>
<b>Tax-Exempt Municipal Bonds</b> – Maintain the current tax-exempt status of municipal bonds; oppose efforts to place a cap on tax-exempt municipal bonds as part of any federal tax reform measure. Oppose prohibitions on the use of tax-exempt bonds if a local government uses WIFI or any similar program.	<b>Low</b>
<b>Tax Parity for Water Efficiency Rebates</b> – Advocate for tax parity between water and energy efficiency rebates.	<b>Low</b>
<b>Total Maximum Daily Load Limits</b> – Advocate that the Environmental Protection Agency use the best available science when setting Total Maximum Daily Load (TMDL) limitations related to Clean Water Act compliance and approve TMDLs for California based on relevant studies related to California’s environment and local conditions.	<b>Low</b>
<b>Water Resource Development Act</b> – Seek enactment of a WRDA bill every two years which is beneficial to IRWD and Orange County, and which includes authorizations for the water infrastructure programs and funding supported by IRWD.	<b>Low</b>

<u>STATE ISSUES</u>	
<b>Connection Fees-</b> Protect IRWD’s ability to charge cost-based connection fees for both water and sewer service based on the District’s current cost allocation formula.	<b>Very High</b>
<b>Conservation, Water Use Efficiency Regulations</b> – Engage with the State Board and the Department of Water Resources on regulations implementing the “Making Water Conservation a California Way of Life” legislation enacted.	<b>Very High</b>
<b>Emergency Supplies</b> – Seek recognition of the importance of emergency water supplies in Urban Water Management Plans and implementation of the “Making Water Conservation a California Way of Life” legislation in a way that permits pre-emergency designation of such supplies, and protects their use during droughts or other water shortages. Seek State agency action consistent with the Initial Actions proposed in IRWD’s Water Resilience Policy Paper.	<b>Very High</b>
<b>Real Estate Investments</b> – Engage on regulatory or legislative proposals that may impact IRWD’s ability to maintain a high return of investment on its real estate investments.	<b>Very High</b>
<b>Revenues</b> – Protect IRWD’s revenue sources and seek measures to ensure reliability in special district revenues.	<b>Very High</b>

<b>DRAFT</b> <b>Expected 2020 Legislative and Regulatory Issues</b>	<b>Proposed Allocation of IRWD Resources</b>
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<p><b>State Board</b> –Engage with the State Board on policy, regulatory and permits issues of concern to IRWD, including the revisions being proposed to the Electronic Annual Report, data requests, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Toxicity Provisions, and other regulations proposed in 2020.</p>	<p><b>Very High</b></p>
<p><b>Water Resilience Portfolio</b> –Engage in the discussions surrounding California water resilience advocating that IRWD’s Water Resilience Portfolio principles and the “initial actions” contained in the policy paper are implemented either in the Governor’s Water Resilience Portfolio or through other means. Engage in the discussions surrounding the resilience bond.</p>	<p><b>Very High</b></p>
<p><b>Water Loss Regulation</b> – Engage with the State Board to ensure that the SB 555 water loss performance measure/standard regulations are appropriate, consider cost-benefit, and contemplate key other factors that affect potable water loss.</p>	<p><b>Very High</b></p>
<p><b>Water Tax</b>–Consistent with the Board’s adopted policy on a statewide public goods charge, oppose a statewide tax on water for Low Income Rate Assistance or to fund other resiliency efforts</p>	<p><b>Very High</b></p>
<p><b>Biosolids</b> – Seek a broader spectrum of permissible uses of biosolids byproducts including a possible “healthy soils” designation. Advocate that the SB 1383 Proposed Organics Waste Reductions Regulations preserve and promote the use of biosolids.</p>	<p><b>High</b></p>
<p><b>CECs and PFAS</b> – Engage with stakeholders, industry associations, and regulatory agencies on establishing better processes for identifying and regulating contaminants of emerging concern (CECs), including formulizing the notification level and response level setting process. Engage with stakeholders, industry associations, and regulatory agencies on PFAS, and the regulatory actions proposed by state agencies</p>	<p><b>High</b></p>
<p><b>Definition of “Waters of the State”/Wetlands Policy</b> – Seek implementation of the adopted definition of “Waters of the State” consistent with the intent behind the approved language which accounts for constructed treatment wetlands like the San Joaquin Marsh, Natural Treatment System and IRWD’s reservoirs.</p>	<p><b>High</b></p>
<p><b>Disadvantaged Communities</b> – Support efforts to identify and quantify the water quality and water management challenges facing disadvantaged communities (DACs) in California. Work to support the development and enactment of creative solutions, which seek to address the challenges facing DACs through a means other than a statewide water tax.</p>	<p><b>High</b></p>
<p><b>Title 17 and Title 22 Update</b> – Seek updates to Titles 17 and 22, including relief of dual-plumbed inspection/testing requirements.</p>	<p><b>High</b></p>
<p><b>Limitations on Ocean Discharges</b> – Engage productively in discussions surrounding proposals to eliminate ocean discharges to protect the District’s interests. Support efforts to promote funding of treatment process upgrades that improve water quality and reuse options.</p>	<p><b>High</b></p>
<p><b>Public Safety Power Shut-offs</b>- Advocate for legislation or regulations that address the impacts of Public Safety Power Shutoff (PSPS) on water and wastewater agencies, including providing certainty regarding the ability of agencies to run their backup generators during PSPS events</p>	<p><b>High</b></p>
<p><b>Safe Drinking Water</b>- Engage on the implementation of the Safe Drinking Water Program in order to ensure that the program is implemented in a way to effectively move communities to sustainable access to safe drinking water</p>	<p><b>High</b></p>
<p><b>Water Transfers and Markets</b> – Engage in discussion relates to improving California’s water transfer and exchange approval system.</p>	<p><b>High</b></p>

<b>DRAFT</b> <b>Expected 2020 Legislative and Regulatory Issues</b>	<b>Proposed Allocation of IRWD Resources</b>
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<p><b>Water and Sewer Rates</b> – Protect the District’s ability to design and use its water budget-based tiered rate structure, and advocate that state polices recognize water budget-based tiered rate structures and the importance of price signals to achieving greater water use efficiency. Engage in discussions surrounding water and sewer rates in order to protect IRWD’s ability to use a water budget-based tiered rate structure including discussions related to Low Income Rate Assistance programs, water system sustainability, and OEHHA’s “Human Right to Water” assessment tools.</p>	<b>High</b>
<p><b>AB 5/Employee Definition Clean-up</b> – Monitor any clean-up legislation related to AB 5 (2019) and work to ensure any clean-up needed for local agencies in included.</p>	<b>Moderate</b>
<p><b>California Environmental, Public Health and Workers Defense Act Proposals</b> – Opposes California Environmental, Public Health and Workers Defense Act proposals that would negatively impact federal and state water project operations and the Voluntary Agreements.</p>	<b>Moderate</b>
<p><b>Groundwater Clean-up</b> – Support efforts to obtain State funding to clean up groundwater contamination in the Orange County Basin, and funding for basin replenishment.</p>	<b>Moderate</b>
<p><b>Lead Testing Requirements</b> – Engage in policy discussions related to expanding lead testing requirements in order to protect IRWD’s interests.</p>	<b>Moderate</b>
<p><b>Potable Reuse</b> – Advocate for the expansion of potable reuse in California and support a science-based and fit-for-purpose regulatory approach to the various types of potable reuse considered in the California Water Code Section 13561.</p>	<b>Moderate</b>
<p><b>Public Fleets</b> – Oppose efforts to expand regulatory authority over public fleets, and proposals designed to accelerate the replacement of existing public fleet stock without consideration of cost and age and technology of the current stock, and the availability of mandated replacement technology. Oppose proposals governing the public fleets of water and wastewater providers that do not consider the constraints of certain technologies on the provisions of essential public services during or after an emergency</p>	<b>Moderate</b>
<p><b>Wildfire Prevention and Liability</b> – Seek to ensure that proposals related to wildfire prevention and liability proposals consider the perspective of water and wastewater providers.</p>	<b>Moderate</b>
<p><b>CEQA Reform</b> – Seek reforms to CEQA that are beneficial to IRWD.</p>	<b>Low</b>
<p><b>Climate Change Adaptation</b> – Engage in policy discussions related to climate change adaptation within the water and wastewater sectors.</p>	<b>Low</b>
<p><b>Delta Conveyance Implementation</b> – Advocate for a change in the operation of the Delta, consistent with the co-equal goals of ecosystem protection and water supply reliability. Seek the State actions necessary to implement a solution in the Bay Delta and oppose efforts to make implementation of a solution more difficult.</p>	<b>Low</b>
<p><b>Energy</b> – Advocate for policies that encourage energy reliability in Orange County, and energy efficiency or reductions in embedded energy in the water and wastewater sectors, including allocation of Cap-and-Trade revenues to the water and wastewater industries, use of energy conservation funding within the water sector, and expanded availability of direct access programs, without an increase in cost to or mandates on local entities; seek incentives for energy self-reliance projects (i.e. storage, generation, efficiency).</p>	<b>Low</b>
<p><b>Grant Reporting</b> – Seek changes in state grant reporting requirements to ease the burden of grant recipients while maintaining transparency.</p>	<b>Low</b>

<b>DRAFT</b> <b>Expected 2020 Legislative and Regulatory Issues</b>	<b>Proposed Allocation of IRWD Resources</b>
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<b>Groundwater Management</b> – Engage productively in discussions groundwater management in California to protect IRWD’s interests. Promote greater water banking opportunities to benefit IRWD banking programs.	<b>Low</b>
<b>Homelessness</b> – Within the larger discussions on addressing homeless, ensure that the impacts of homeless on water and wastewater agencies is recognized, and that agencies continue to retain adequate authority to secure their facilities.	<b>Low</b>
<b>Integrated Regional Water Management Program</b> – Seek changes to the IRWMP allocation process that benefits IRWD. Oppose program changes that expand funding eligibility to projects that do not further water supply reliability.	<b>Low</b>
<b>Operators Certifications</b> – Address inconsistent certification processes for operator certifications (treatment, distribution, and recycling). Monitor for changes in certification requirements.	<b>Low</b>
<b>Political Reform Act/FPPC Issues</b> – Monitor for changes to the Political Reform Act and FPPC regulations that could impact IRWD.	<b>Low</b>
<b>Proposition 218 Reforms</b> – Engage in discussions surrounding Prop. 218 reform efforts to protect IRWD’s interests. Communicate the District’s concern over any water rate legislation which is not consistent with the California Constitution, not voluntary in nature, or that does not provide sufficient clarity or flexibility to water agencies.	<b>Low</b>
<b>Public Agency Liability and Public Contracting</b> – Oppose efforts to impose greater liability on public agencies for work performed by its contractors. Oppose proposals that make public contracting for labor, service or public works projects more cumbersome including reductions in contract retentions or changing the criteria agencies may consider when awarding contracts.	<b>Low</b>
<b>Public Records Act</b> – Monitor proposed changes to the Public Records Act that could impact IRWD costs including new requirements for local agency websites, data production and reporting.	<b>Low</b>
<b>Recycled Water</b> – Promote the expanded use of recycled water, and its acceptance as a resource, by advocating for the removal of hindrances to recycled water projects and storage. Seek to: <ul style="list-style-type: none"> <li>• Remove recycled water as a waste, including addressing recycled water discharge requirements.</li> <li>• Promote a “Fit for Purpose” regulatory approach for recycled water.</li> <li>• Promote the development of needed potable water reuse regulations.</li> <li>• Eliminate operational constraints on recycled water operations and use, including unintended impacts created by the Enclosed Bays and Estuaries Policy.</li> </ul>	<b>Low</b>
<b>Unfunded Pension Liability</b> – Oppose legislation or regulations that would increase IRWD’s pension liability either by making local agencies responsible for the pension liabilities of other entities (e.g. joint powers authorities) or by failing to recognize the liability reduction benefits of Section 115 Trust and other pre-funding efforts. Seek state support for refinements in the GASB rules that limit recognition of the benefits Section 115 Trust.	<b>Low</b>
<b>Water Theft</b> – Engage in industry discussions related to water theft and work to ensure that any legislative proposal addressing water theft provides the District with the statutory authority and flexibility is needs to establish appropriate administrative penalties for water theft.	<b>Low</b>
<b>Zero Carbon Energy</b> – Advocate for the inclusion of hydropower, bioenergy derived from biosolids, and other categories of energy generation invested in by the water and wastewater sectors in the types of energy generation that is defined as zero carbon for California’s Zero Carbon goal.	<b>Low</b>

<b>DRAFT</b> <b>Expected 2020 Legislative and Regulatory Issues</b>	<b>Proposed Allocation of IRWD Resources</b>
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<u>REGIONAL ISSUES</u>	
<b>Santa Ana and San Diego Regional Water Quality Control Boards</b> – Develop a closer working relationship with Regional Board staff. Work with the Board on issues of concern to IRWD including adjusting storm-induced overflow protections and expand the use of recycled water in decorative lakes.	<b>Very High</b>
<b>South Coast Air Quality Management District (AQMD) Rule 1403-</b> Seek amendments to Proposed Amended Rule 1403 to clarify the application of the rule and to mitigate operational impacts on utilities with underground infrastructure while protecting public health during utility construction and demolition activities involving asbestos containing materials.	<b>Very High</b>

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December 16, 2019

Prepared by: J. Moeder / R. Mori

Submitted by: K. Burton

Approved by: Paul A. Cook



## ACTION CALENDAR

### FLEMING ZONE 8 TANK AND ZONE 8 TO 9 BOOSTER PUMP STATION CONSULTANT SELECTION

#### SUMMARY:

Staff is proceeding with the design of the enlarged Fleming Zone 8 Tank and upgraded Zone 8 to 9 Booster Pump Station as identified in the 2017 Santiago Area Distribution System Analysis. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$878,000 with Tetra Tech for engineering design services for the Fleming Zone 8 Tank and Zone 8 to 9 Booster Pump Station.

#### BACKGROUND:

IRWD provides potable water supply service to approximately 2,500 customers in the Santiago Area located in an unincorporated region of Orange County. The Santiago Area is east of the Eastern Transportation Corridor (SR-241), north of Lomas Ridge, and west of Portola Hills. This service area includes four distinct sub-areas including Santiago Canyon, Silverado Canyon, Williams Canyon, and Modjeska Canyon. Each canyon area contains a system of domestic water tanks and pump stations that solely relies on the existing 150,000 gallon steel Fleming Zone 8 Tank and the existing Zone 8 to 9 Booster Pump Station as the main source of supply. The facilities are located near the intersection of Santiago Canyon Road and Black Star Canyon Road as shown in Exhibit "A".

In 2017, IRWD completed the Santiago Area Distribution System Analysis, which included several recommended improvements for undersized infrastructure and requirements for additional storage in the Santiago Area. The study recommended increasing the storage capacity to 1.3 million gallons (MG) to meet the storage requirements for the area.

The project includes construction of a new 1.3 MG-storage tank, a reservoir management system building with sodium hypochlorite and ammonia storage and feed systems and in "in-tank" chemical injection and mixing system, a 2,000-gallon diesel fuel storage tank, and replacement of the existing pump station, which has reached the end of its service life. The project also includes a new office space that can be used as an IRWD Emergency Operations Center for emergencies in the canyon area, a new storage building for emergency equipment and supplies, and various site electrical, telemetry, and control improvements.

#### Consultant Selection:

Staff received proposals for engineering design services from Dudek, Lee & Ro, Stantec, and Tetra Tech. Each firm presented unique project approaches and creative engineering solutions for achieving the project objectives. Tetra Tech presented the most comprehensive approach to completing the project, demonstrated an outstanding understanding of the project issues,

provided an in-depth summary of how each issue will be resolved during the design, and presented conceptual facility layouts for the proposed facilities. Tetra Tech also demonstrated the most extensive, recent experience with the design and construction of prestressed concrete tanks. The consultant selection matrix is attached as Exhibit "B", and Tetra Tech's scope of work and fee proposal are attached as Exhibit "C".

Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$878,000 with Tetra Tech since its design approach, schedule, and staff hours are consistent with the project goals and objectives.

Schedule:

The design will be completed in accordance with the following schedule milestones:

Kick-off Meeting	January 7, 2020
Preliminary Design Report Completion	July 2020
Final Design Completion	May 2021
Bid Opening and Notice of Award (for construction)	July 2021

FISCAL IMPACTS:

The Fleming Zone 8 Tank and Zone 8 to 9 Booster Pump Station, Project 10101, is included in the FY 2019-20 Capital Budget and will be funded through 89.5% existing customers (Improvement District 1110) and 10.5% replacement funds (Improvement District 1100). Staff may adjust the funding splits after completion of design when more detailed construction estimates are available. The existing budget is sufficient to fund the recommendation presented herein.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when "meaningful information" becomes available. Staff anticipates that the preliminary analysis will lead to preparation of a Mitigated Negative Declaration for the project.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 10, 2019.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH TETRA TECH IN THE AMOUNT OF \$878,000 FOR ENGINEERING DESIGN SERVICES FOR THE FLEMING ZONE 8 TANK AND ZONE 8 TO 9 BOOSTER PUMP STATION, PROJECT 10101.



Action Calendar: Fleming Zone 8 Tank and Zone 8 to 9 Booster Pump Station Consultant Selection  
December 16, 2019  
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LIST OF EXHIBITS:

Exhibit "A" – Location Map  
Exhibit "B" – Consultant Selection Matrix  
Exhibit "C" – Tetra Tech Scope of Work and Fee Proposal

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EXHIBIT "A"



LOCATION MAP - FLEMING RESERVOIR AND PUMP STATION

1 inch = 100 feet

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**EXHIBIT "B"**

**CONSULTANT SELECTION MATRIX**

Fleming Tank and Pump Station Improvements									
Item	Description	Weights	Dudek	Lee & Ro	Stantec	Tetra Tech			
A	<u>TECHNICAL APPROACH</u>								
1	Project Understanding & Approach	40%	2	4	3	1			
2	Project Experience	30%	2	3	4	1			
3	Project Team	30%	2	3	4	1			
	<u>Weighted Score</u>		2.0	3.4	3.6	1.0			
	<b>Ranking of Consultants</b>		<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>			
B	<u>SCOPE OF WORK</u>								
TASK		Task Hours	Fee	Task Hours	Fee	Task Hours	Fee	Task Hours	Fee
1	Project Management	260	\$64,763	456	\$97,056	414	\$124,614	352	\$87,200
2	Preliminary Design	1,645	\$269,593	2,568	\$421,188	1,592	\$402,192	1,616	\$339,600
3	Final Design	2,922	\$495,066	2,638	\$459,356	2,728	\$627,567	3,174	\$451,200
	<b>Total Engineering Services Fee</b>	<b>4,827</b>	<b>\$829,422</b>	<b>5,662</b>	<b>\$977,600</b>	<b>4,734</b>	<b>\$1,154,373</b>	<b>5,142</b>	<b>\$878,000</b>
C	<u>OTHER</u>								
	Number of Drawings	140	107	115	138				
	Engineering Design Services Fee per Drawing	\$5,924	\$9,136	\$10,038	\$6,362				
	<u>Sub Consultants</u>								
	Electrical	MPA	In-house	MPA	In-house				
	Civil	In-house	In-house	In-house	In-house				
	Structural	PSE	In-house	PSE	In-house				
	Architectural	MBN Group	In-house	GPA	In-house				
	Geotech	Converse	Associated Soils Eng.	Leighton Consulting	Leighton Consulting				
	Mechanical	In-house/ATC	In-house	In-house	In-house				
	Survey	Guida Surveying	The Prizm Group	In-house	Metz Surveying				
	Surge	ZZ Technologies	NHC	NHC	Scott Foster Engineering				
	Potholing	TC Mueller	Bess Test lab	None	C-Below				
	Exceptions taken to IRWD Std. Contract	No	No	No	No				
	DIR Numbers Provided	Yes	Yes	Yes	Yes				
	Insurance (Professional & General Liability)	Yes	Yes	Yes	Yes				

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## SCOPE OF WORK

Members of the Project team have performed an in-depth review of the project description and scope of work within the Request for Proposal (RFP) as well as the Exhibits provided within the RFP.

We propose to provide the following scope of work for the preliminary design, final design and construction phase services with each phase being authorized by a separate Notice-to-Proceed.

All work performed on this project will conform to IRWD standards and requirements including, but not limited to, the following: IRWD Project Manual; IRWD Construction Manual; and IRWD Electrical and Instrumentation and Control (I&C) Design Standards.

Tetra Tech will provide the following detailed scope of services:

### **TASK 1 – PROJECT MANAGEMENT**

Tetra Tech will conduct project management activities to ensure adherence to scope, schedule, and budget; promote efficient communication between Tetra Tech, IRWD, and others as required; and implement an effective quality assurance/quality control (QA/QC) program.

- A. **Preparation of Project Status Reports.** Tetra Tech will prepare weekly and monthly status reports. Each weekly status report shall consist of a brief (one or two paragraphs) e-mail summarizing the activities completed the previous week, the activities planned for the upcoming week, and critical decisions that need to be made. Each monthly status report shall provide more detail, summarizing the work completed and reviewing work status relative to budget and schedule. The project schedule shall also be updated on a monthly basis for inclusion in the monthly status report.
- B. **Meetings and Workshops.** Tetra Tech will organize, attend, and conduct meetings and workshops as required; prepare and submit meeting agendas for IRWD review and concurrence at least five days prior to the meeting; and prepare draft and final minutes for all meetings and workshops and submit them to IRWD within one week of the meeting.

For budgeting purposes, Tetra Tech will budget for the following meetings at a minimum:

MEETING/WORKSHOP	DESCRIPTION
General project management and design development meetings	Eight (8) two-hour meetings
Site Visits	Four (4) two-hour meetings
Coordination activities with jurisdictional agencies and project stakeholders including, but not limited to, The Division of Drinking Water (DDW), Southern California Edison (SCE), Orange County Fire Authority (OCFA), and AT&T	Four (4) two-hour meetings
Reservoir Location Workshop	One (1) two-hour workshop
Site Master Plan Workshop	One (1) two-hour workshop
Preliminary Design Workshop	One (1) two-hour workshop
Present the 60% design, discuss IRWD’s comments, and discuss how the outstanding items were addressed	One (1) two-hour meetings

MEETING/WORKSHOP	DESCRIPTION
Present the 90% design, discuss IRWD’s comments, and discuss how the outstanding items were addressed	One (1) two-hour meetings
Present the 100% design, discuss IRWD’s comments, and discuss how the outstanding items were addressed	One (1) two-hour meetings

- C. **Quality Assurance/Quality Control.** Tetra Tech will develop and implement proven QA/QC measures throughout the project to ensure ongoing and consistent quality control throughout all project phases. As part of the QA/QC measures, Tetra Tech will capture comments from review meetings and submittals and thoroughly check the work product to ensure that comments are addressed.

**TASK 2 – PRELIMINARY DESIGN**

Tetra Tech will perform the following subtasks as part of the preliminary design phase. The subtasks shall be documented and compiled into a Preliminary Design Report (PDR) as summarized below.

- A. **Background Information.** Tetra Tech will review existing reports, historical flow data, system process, record drawings, and other information related to the project. Tetra Tech will conduct a meeting with IRWD with a focus on multiple project phases, hydraulic considerations, site constraints, and facility considerations. Tetra Tech will also conduct one of the site visits indicated above to establish an initial site reconnaissance and understanding of existing facilities.
- B. **Utility Research.** Tetra Tech will research and identify the location of existing underground utilities and/or other physical features in the immediate vicinity of the proposed facilities and appurtenances. Information on utilities including material, size, horizontal and vertical locations shall be identified. Tetra Tech will include budget to pothole four (4) existing utilities.
- C. **Zone 8 Reservoir.** The proposed reservoir will be prestressed concrete construction. Tetra Tech will fully design and detail the reservoir and shall include all necessary plans, sections, and details in the construction plans. The preliminary design shall consider seismic requirements, performance, and ways to reduce concrete shrinkage and cracking and shall include a summary of proposed reservoir features including overflow provisions, inlet and outlet pipelines, drain pipeline, pipe sizes and routing, venting, interior column sizing and spacing, subgrade preparation, foundation and footing requirements, pipe penetrations, ladders, stairs, hatches, guardrail, reservoir sub-drain system, and any other ancillary items as necessary.

Tetra Tech will consider the existing system operation, minimum and maximum hydraulic grade lines, and sequencing of construction to maintain service to the area when determining the siting and configuration of the proposed reservoir and other onsite facilities.

Tetra Tech will evaluate the site constraints and restrictions, environmental impacts, permitting schedule, costs, construction duration, and phasing for two (2) reservoir layout alternatives. Layout Alternative 1 would be to construct the new reservoir in the undeveloped area west of the access road and protect in place the existing AT&T cell tower and electrical equipment. Layout Alternative 2 would be to construct the new reservoir in the southern half of the existing developed site and to relocate the existing AT&T cell tower and electrical equipment and existing sewage holding tank.



The work described above shall be summarized and compiled into a Technical Memorandum (TM) that clearly summarizes each of the evaluated alternatives and highlights details associated with the recommended alternative. Six copies of the draft TM and one electronic copy in PDF will be submitted for review. Upon resolution and incorporation of review comments, six copies of final TM and one electronic copy in PDF on CD will be submitted.

- D. **Reservoir Management System.** Tetra Tech will identify the optimal location for a RMS facility generally consisting of a CMU block building, chlorine residual sampling, chloramine disinfection, including storage and feed systems for sodium hypochlorite (12.5%) and aqueous ammonia (29%), and in-tank PAX mixing system and controls. Tetra Tech will be responsible for all aspects of the RMS facility design including layout, mechanical, structural, electrical, chemical storage volumes, chemical feed rates, in-tank mixer sizing, and associated reservoir penetrations and connection details. Tetra Tech will identify the requirements for and design of an automatic sprinkler system as required by OCFA.
- E. **Pump Station Building Configuration.** Tetra Tech will evaluate and develop at least three building layout alternatives for the proposed pump station. The pump station shall consist of split-face CMU block walls with a sloped or gable roof constructed of steel or other fire resistant material that complies with IRWD's fire-hardening design criteria. Each alternative building layout shall include a pump room, electrical room, office room, restroom, and diesel fuel storage room. The pump room shall be sized for three (two duty and one standby) 600 GPM vertical turbine pumps with a spare pump bay to accommodate the potential for future installation of a fourth pump. The office room shall consist of a minimum of 350 square feet (sf). The electrical room, office room, and restroom shall be provided with air conditioning. The diesel storage room shall be provided with air conditioning, if required by any jurisdictional or regulatory agencies. HVAC equipment may be located inside or outside as space permits. The pump room shall include the pumps and motors, a high pressure bypass pressure reducing valve (PRV), and a magnetic flowmeter. Any surge equipment proposed as part of Task 2.K shall be located outside, except for the air compressor, which shall be located within the pump room.
- F. **Site Master Plan.** Tetra Tech will develop an overall site master plan that provides detailed layouts for the proposed facilities and on-site pipelines, maintenance access roads and new entry point (if applicable), any needed facility relocations, which may include relocation of the existing emergency generator, and all existing facilities at the site. Site security shall be provided at the site and shall include, at a minimum, limited site lighting, a motorized entrance gate with OCFA override access, and replacement of all fencing around the perimeter of the site with barbed wire chain link fencing.

IRWD anticipates replacing the existing storage building with a new storage building that consists of a minimum of 1,000 sf. During this task, Tetra Tech will collaborate with IRWD on the space needs to fully define the storage configuration and size. Tetra Tech will also evaluate the condition of the existing storage building and determine if it can be salvaged and incorporated into the final site layout.

The sewer line from the existing restroom drains to a holding tank located on the site. Tetra Tech will evaluate the condition and adequacy of the existing sewer line and sewer holding tank to determine if the facilities can be re-used and incorporated into the new site configuration or if new facilities are required. Tetra Tech will also evaluate the feasibility of a new leach field location.

Tetra Tech has assumed that the pump station, electrical room, office and bathroom will be in one building. The RMS Facility will be in a separate building located adjacent to the proposed reservoir. The storage building and diesel fuel storage and dispensing facility will be paired together in another building

The work completed herein shall document the proposed site configuration, site constraints, potential challenges, findings, and other information that Tetra Tech finds relevant. At a minimum, Tetra Tech will develop and evaluate three (3) alternative site layouts in collaboration with IRWD once IRWD has selected the reservoir location. As part of this task, Tetra Tech will conduct a workshop with IRWD to review and evaluate the proposed layouts.

The work described above shall be summarized and compiled into a Technical Memorandum (TM) that clearly summarizes each of the evaluated alternatives and highlights details associated with the recommended alternative. Six copies of the draft TM and one electronic copy in PDF will be submitted for review. Upon resolution and incorporation of review comments, six copies of final TM and one electronic copy in PDF on CD will be submitted.

- G. **Architectural Renderings.** Tetra Tech will prepare architectural renderings of the site for the recommended site layout. The renderings will include, at a minimum, a bird's eye view of the site from each direction (i.e., north, south, east, and west) that captures the proposed reservoir, the proposed building(s), perimeter fencing, and all proposed above-grade site improvements.
- H. **Construction Phasing.** Tetra Tech will evaluate construction and siting requirements for the proposed facilities and identify which, if any, existing facilities are required to be relocated, temporarily disabled, demolished, or modified. Tetra Tech will prepare a phasing plan and recommended sequence of construction that identifies the order in which facilities will need to be relocated, temporarily disabled, demolished or modified to maintain existing services and minimize disruption to the system. The PDR shall include a discussion on construction sequencing to maintain existing services throughout construction prior to demolition of the existing facilities.
- I. **Surge Analysis.** Tetra Tech in unison with Scott Foster Engineering, Inc. will conduct a hydraulic transient analysis and provide recommendations to ensure that the proposed improvements, and other existing domestic water system facilities impacted by the improvements, are adequately protected from surge events.

The project calls for the installation of a new larger reservoir and new Fleming booster pump station (BPS) at the same location as the existing facilities. The new BPS will contain three 600 gpm pumps (two duty and one standby). The BPS will boost the flow from the new Zone 8 Reservoir (HGL = 1060 ft) into the Zone 9 distribution system (HGL = 1360 ft). The Zone 9 distribution system floats on the Williams and Shaw tanks as well as supplies flow to the Cabinland and Manning pump stations.

Based on the provided information, it is not clear if the new reservoir will be able to be bypassed and the BPS be supplied directly by the Santiago Hills PS. This potential scenario is also possible for the Shaw and Williams pump stations. For the purpose of this proposal, it will be assumed that the reservoirs at the pump stations will not be bypassed and will remain in service. This creates a hydraulic break in the system that will prevent pressure surges generated by any of these pump stations from impacting the other pump stations. Therefore, only the reservoirs will be included in the models and the pump stations will not. Note that this is not the case for Cabinland or Manning as these are hydraulically connected to the new BPS. For the purpose of this proposal, the analysis of the pressure surges generated by these two pump stations will not be included and will be modeled as constant demands in the system.

Upon the loss of power to the BPS, a pressure drop a low pressure wave will propagate out into the Zone 9 distribution system, lowering the pressure in the system piping as it travels throughout the zone. This low pressure wave could result in negative pressure conditions in the zone and possible vapor pressure

conditions. Upon reflection at the Shaw and Williams reservoirs as well as the Cabinland and Manning pump stations, a repressurization wave will propagate back towards the BPS, collapsing any vapor cavities that have formed, creating extremely high pressures in the system that could overpressurize the piping. Additionally, it may be possible to collapse the pipelines if they have insufficient collapse strength.

We have assumed that the existing hydraulic model of the Zone 9 distribution system will be provided. To perform the surge analysis, the model will need to either be provided in Bentley software format or converted to EPANET. The surge analysis will be performed using Bentley's HAMMER surge analysis software. The surge analysis will be performed for sudden loss of power and startup of the BPS under maximum and minimum (i.e., reservoir fill) flow conditions.

The following Scope of Work to perform the necessary pressure surge analyses is based on the discussion above:

1. **Information Review:** We will review information including: pump station plans, sections, pump curves, valving, operations, etc.; existing hydraulic model converted to EPANET, Zone 9 pipeline materials, diameters, and pressure classes.
2. **Model Development:** We will create a surge analysis model of the system including the upgraded pump station and the Zone 9 distribution system under maximum demand flow conditions.
3. **Analysis and Recommendations:** We will perform surge analyses simulations for sudden pump trip and pump startup of the pump station under maximum flow demand conditions assuming no surge protection for the system. Based on the results of the analyses, recommend surge protection measures to protect Zone 9 distribution system from adverse pressure surges.
4. **Draft Technical Memorandum:** We will prepare and submit a Draft Technical Memorandum summarizing the results and recommendations of the analysis. Three copies of the draft TM and one electronic copy in PDF shall be submitted for review.
5. **Final Technical Memorandum:** We will submit the Final Technical Memorandum upon receipt and incorporation of comments. Three copies of the final TM and one electronic copy in PDF on SD shall be submitted.

To perform the Scope of Work, we have assumed the following information will be provided:

1. A hydraulic model of the distribution system converted to EPANET.
2. Pump station information (plans, sections, valving, pump curves).
3. Zone 9 distribution system piping information (materials, pressure classes or maximum allowable hydraulic gradelines, etc.)

***As an optional item, the analysis of the pressure surges generated by the Cabinland and Manning pump stations and the effects these surges will have on the 1360 Zone can be included as part of the above Scope of Work. The hydraulic model to be provided will need to include the distribution systems into which both of these pump stations deliver flow. Additionally, similar information as required for the Fleming station will need to be provided for these two stations.***

- J. **Site Electrical Service.** The existing site electrical service, provided by SCE, consists of two separate electrical services. As part of the project, the two existing electrical services shall be removed and combined into a single new electrical service capable of supplying the entire site. Tetra Tech will evaluate the existing and proposed site electrical loads to identify the size of the needed electrical service to the site. Tetra Tech will coordinate with SCE to begin preparation of the SCE preliminary service plan and shall support SCE as needed to develop the final SCE-approved service plan during the final design phase.
- K. **Electrical and Controls.** Tetra Tech will develop electrical and controls design requirements associated with the proposed improvements. The existing generator on site, automatic transfer switch, and triple switch shall be evaluated to determine if they are appropriately sized to handle the new facility loads and can be re-used with the proposed facilities. The existing site utilizes a point-to-point T1 line for SCADA communication between the Fleming site and the Michelson Water Recycling Plant (MWRP). Telephone communication is used to communicate from the Fleming site to the other facilities in the canyons. Tetra Tech will maintain the existing T1 line for point-to-point communication between the Fleming site and MWRP. Tetra Tech will also include installation of a new minimum 50-foot antenna (from the highest finished grade elevation at the site) for radio communications with other IRWD facilities located in the canyons. Tetra Tech will also include installation of two new programmable logic controllers (PLCs), housed within two separate control panels, to provide the needed controls for the proposed facilities. As part of the construction phasing task, Tetra Tech will ensure that the existing communication and controls are maintained throughout construction.
- L. **Geotechnical Investigation.** Tetra Tech in unison with Leighton Consulting will conduct a geotechnical investigation to adequately characterize the conditions at the proposed site. The following tasks, at a minimum, shall be conducted as part of the geotechnical investigation:
1. **Background Review:** We will review available in-house geotechnical reports prepared by Leighton for adjacent sites and publicly available literature, aerial photographs, and maps relevant to the Project site. In our review, we will look for geological hazards and potential geotechnical issues that may significantly impact the proposed Project and affect our proposed field exploration and laboratory testing program.
  2. **Field Exploration:** We propose to drill, sample and log four (4) borings at the proposed site to a depth of 20 to 25-feet below existing grade or auger refusal, whichever is shallower. Prior to the field exploration, we will mark the proposed boring locations and contact Underground Service Alert (USA) for utility marking. The borings will be logged by a member of Leighton's technical staff. Representative soil samples will be collected at selected depths from the borings and transported to our laboratory for testing. The borings will be backfilled with soil cuttings and patched with cold mix asphalt where asphalt is penetrated.
  3. **Percolation Testing:** The borings will be converted to percolation test wells and insitu percolation testing will be performed in accordance with the County of Orange *Technical Guidance Document for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Plans* (December 20, 2013). A 2-inch diameter 0.020-inch PVC pipe slotted between 5 to 10 feet will be installed in each boring to measure percolation rates over the depth. The space between the test hole and the slotted pipe will be backfilled with No. 3 sand as a filter pack. The pipe will then be filled with water to saturate the soils. The percolation test will be performed by measuring the drop of water level in the pipe and the time associated with the



change in water level. After conclusion of the percolation tests, the PVC pipe will be removed and the test hole will be backfilled with the soil cuttings.

4. **Seismic Refraction:** We will perform up to approximately three (3) seismic refraction soundings on the westerly slope to assess depths to bedrock and properties of the bedrock for rippability evaluation.
5. **Geotechnical Laboratory Testing:** We will conduct geotechnical testing on sampled earth materials in our laboratory for soil classification and to evaluate engineering properties. This testing may include moisture content and dry density, sieve analysis, consolidation, direct shear, R-value and corrosivity (chloride and sulfate content, minimum resistivity, and pH). The testing program will depend upon the soil type encountered and samples recovered.
6. **Geotechnical Analyses and Report Preparation:** We will review the field and laboratory data and perform engineering analysis to develop geotechnical recommendations for design and construction of the Project. We will prepare a report presenting our geotechnical findings and recommendations, which will be signed and stamped by a California Licensed Geotechnical Engineer. Our report will include a boring location map, boring logs and geotechnical testing results, and address the following:
  - **Site Conditions:** We will review and summarize surface, subsurface and groundwater conditions, and engineering properties of soils encountered during our geotechnical exploration, including presence of loose soils and/or undocumented fill that may require removal and recompaction. We will discuss excavation characteristics of encountered subsurface materials, including ease or difficulty of excavation.
  - **Geologic Hazards:** We will discuss potential geologic hazards at the Project site, including the potential for surface fault rupture, ground shaking, liquefaction, and tsunamis.
  - **Seismicity:** We will provide site-specific seismic coefficients in accordance with the 2019 California Building Code.
  - **Corrosivity:** We will characterize corrosion potential of concrete and metal in contact with onsite soils and provide recommendations if special design and measures are required.
  - **Infiltration Rates:** We will present results of the percolation testing, including soil type and infiltration rates, for design of leach fields for the new restroom.
  - **Foundation Design:** We will present geotechnical parameters for design of shallow foundation for the proposed reservoir, booster pump station, buildings, and storage tank.
  - **Lateral Earth Pressures:** We will provide recommendations for lateral earth pressures acting on retaining and subterranean walls, and frictional and passive values for the resistance of lateral pressures.
  - **Pipe Installation:** We will present recommendations for subgrade preparation, pipe bedding, materials for trench backfill, and backfill compaction.

- **Construction Considerations:** We will present guidelines for site preparation, overexcavation, fill placement, compaction requirements, temporary excavation, dewatering if groundwater is expected to be encountered in our borings, and geotechnical parameters for design of temporary shoring.

M. **Hazardous Materials Inspection and Testing.** Tetra Tech in unison with National Econ Corporation will conduct a hazardous materials inspection of the existing buildings and the existing 150,000 gallon storage reservoir to determine the potential presence of hazardous materials. Tetra Tech will a budget of \$7,500 for laboratory testing of potentially hazardous material samples. The following tasks, at a minimum, shall be conducted as part of the Hazardous Materials Inspection and Testing:

1. ***Asbestos Containing Materials***

- Asbestos inspection and bulk sampling of suspect asbestos containing materials by a state certified asbestos consultant or certified site surveillance technician, utilizing modified Asbestos Hazards Emergency Response Act (AHERA) sampling protocols.
- Analysis of bulk samples by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory, utilizing Polarized Light Microscopy (PLM) up to 65 samples. Any additional samples cost \$20 per sample. (Excluding Point Count)
- Evaluation of inspection and report preparation, including remedial recommendations.

2. ***Lead/Lead-Based Paint***

- Lead-based paint inspection in accordance with modified Chapter 7 of Title X of the Housing & Community Development Act of 1992 (HUD Guidelines) 1997 Revision, of accessible spaces for lead based paint, for compliance with the EPA Lead-Based Paint Renovation, Repair & Painting (RRP) Rule by California Department of Public Health (CDPH) certified technicians.
- Identification of Lead Based Paint using X-Ray Fluorescence (XRF).
- Evaluation and report preparation including submitting Form 8552 to the CDPH.

3. ***Hazardous Raw Material Inspection***

- Inspect storage building for storage of potentially hazardous raw materials. (Di-electric fluids, paint, solvents, hydraulic oil etc.)
- Inspect gauges on water pumps and tanks for mercury - albeit in small quantities.
- Assess size and construction of sewer holding tank. (Similar to a gasoline UST Excavation and removal; may require testing of soils beneath the tank for TPH and metals.)
- Inspect Site for aboveground (pad mounted and pole mounted) transformers. Check if the transformer(s) is labeled as Non-PCBs and document the manufacturer and serial number of the transformers. (Transformer may be owned by SCE.)
- Provide recommendations for additional inspections and/or sampling.

N. **Surveying Services.** Tetra Tech in unison with Metz Surveying will perform a topographic survey of the Fleming Reservoir Site located at the Fleming Site near the intersection of Santiago Canyon Road and Black Star Canyon Road, Silverado, California. The topographic survey will collect all topographic site features as well as surface utilities within the project area extending out into the centerline of neighboring streets. We will identify or set onsite horizontal and vertical control points to assist during the construction phase of the project. A record boundary will be prepared based upon observed field monumentation and record information.

The survey will be tied horizontally to the California State Plan Coordinate system NAD83 (2017.50 Epoch) based upon observed Orange County Public Works horizontal control points. Vertically, the survey will be tied to NAVD 88 (1995 adjustment) based upon observed Orange County Public Works benchmarks.

All survey work performed by Metz Surveying will be under the direct supervision of a Professional Land Surveyor licensed in the State of California.

- O. **Permits.** Tetra Tech will make applications and secure all permits with appropriate agencies. The permit acquisition process shall be initiated as early as practical to avoid project delay. Copies of completed permits and approvals shall be inserted in the appendix of the Project Manual. IRWD will reimburse Tetra Tech for actual permit fees without surcharge. Tetra Tech will include a \$5,000 allowance within their budget for the payment of permit fees in addition to the labor effort described above. The known permits and/or coordination with other agencies that are not identified elsewhere in this RFP include:
1. **Fire Master Plan.** A Fire Master Plan will be required for the RMS facility that utilizes liquid sodium hypochlorite and aqueous ammonia. Tetra Tech will develop a Fire Master Plan for the site and shall obtain approval of the master plan from the OCFA.
  2. **Orange County Fire Authority.** In addition to the Fire Master Plan, Tetra Tech has assumed the following OCFA Guidelines will require approval for the RMS facility and Diesel Storage Tank and Dispensing facility:
    - Hazardous Materials Identification
    - Completion of the Chemical Classification Packet
    - Installation and Modification of Aboveground Equipment Components of Fuel Dispensing Operations
  3. **Construction General Permit.** IRWD anticipates that the project will require a Storm Water Pollution Prevention Program (SWPPP). Tetra Tech, who will act as the Qualified SWPPP Developer, shall determine the risk level for the project and prepare the SWPPP accordingly for inclusion in the Project Manual. It is IRWD's intent to have the Contractor act as the Qualified SWPPP Practitioner (QSP) and perform the monitoring and reporting as part of the construction contract.

Tetra Tech will prepare and submit the SWPPP for the project site to comply with the State Regional Water Quality Control Board General Permit for Construction Activities. The SWPPP will be prepared by a Qualified SWPPP Developer (QSD) and will be submitted to the IRWD for review and concurrence. Tetra Tech will assist IRWD in registering the project on the State SMARTs system and complete the Notice of Intent (NOI) for the project. It is assumed that all registration fees in excess of the \$5,000 allowance already included will be paid by IRWD.
  4. **Department of Drinking Water (DDW).** Tetra Tech will submit the reservoir plans and location of existing and proposed sewer holding tank and potential leach field to the Department of Drinking Water. Tetra Tech has assumed that a meeting with DDW will not be required or will not require Tetra Tech's attendance.
  5. **Orange County Public Works Permits.** Tetra Tech has assumed that the grading plans will need to be submitted to Orange County Public Works for review and comments.
- P. **Water Quality Management Plan Requirements.** Tetra Tech will define project features and best management practices that will mitigate the Project's impact on water quality and the environment according to the North Orange County permit from the National Pollutant Discharge Elimination System, which is under the jurisdiction of the Santa Ana Regional Water Quality Control Board. Tetra Tech will

perform a site assessment, compile site conditions, determine hydrologic conditions of concern and pollutants of concern, determine performance criteria, and provide recommendations for low impact development best management practices for treatment and capture of discharges on the site. Tetra Tech will review the proposed improvements with IRWD, determine which are suitable, and then incorporate the improvements into the project. Preparation of a complete Water Quality Management Plan is not required.

- Q. **CEQA Documentation.** IRWD will hire a CEQA consultant separate from this contract to prepare the CEQA documentation for this project. IRWD anticipates the preparation of a Mitigated Negative Declaration. Tetra Tech may need to review portions of the environmental document, prepare exhibits, attend meetings, and/or provide project specific information. Tetra Tech will include a \$5,000 budget for supporting IRWD and the environmental consultant through the CEQA documentation process.
- R. **Project Schedule.** Tetra Tech will prepare a project schedule, which shall include detailed schedules for both design and construction activities. The schedule shall include all critical factors impacting the project schedule including implementation, permitting, and coordination activities to ensure that the project is completed in accordance with the proposed schedule. The schedule shall be prepared in Microsoft Project and shall be updated monthly as described in Task 1.A.
- S. **Opinion of Probable Construction Cost.** Tetra Tech will prepare a detailed and itemized opinion of probable construction cost for the proposed facilities.
- T. **Preliminary Design Report (PDR).** The work described above shall be summarized and compiled into a PDR. At a minimum, the PDR shall summarize the results of the subtasks identified above along with additional design criteria identified by Tetra Tech during the preliminary design.

Eight (8) copies of Draft PDR and one (1) electronic copy in PDF shall be submitted for review. Upon resolution and incorporation of review comments, eight (8) copies of the final PDR and one (1) electronic copy in PDF shall be submitted.

### TASK 3 – FINAL DESIGN

The final design shall result in the preparation of the Contract Documents. In the final design phase, Tetra Tech will address the items discussed hereunder.

- A. **Project Manual.** Tetra Tech will prepare a Project Manual in standard IRWD format. IRWD's front end documents shall be utilized, and Tetra Tech will assess IRWD's documents to determine any needed supplemental General/Special Provisions that should be added to comply with IRWD's General Provisions and front end requirements. The Project Manual shall describe the allowable shutdown durations and sequencing associated with any connections and tie-ins to existing IRWD facilities. The Project Manual shall also include the IRWD General Technical Specifications, modifications thereto, and any project specific technical specifications. It is incumbent upon Tetra Tech to familiarize themselves with IRWD's standards, use the standards as a starting point, and modify them as needed for the project.
- B. **Construction Plans.** Tetra Tech will prepare detailed construction drawings in the latest version of AutoCAD and using NCS V4.0 layering standards, on 22-inch x 34-inch sheets utilizing IRWD's standard border template. Separate sheets with sheet index/location map/legend, general notes, index map, construction notes, condensed profiles, phasing, and detail connections shall be included. Construction



notes shall be used (callouts on the plans are not allowed) on all construction drawings. Existing IRWD utilities shall be identified on the plan view by as-built plan set number with the pipeline material and IRWD pressure zone labeled. The index map shall include sheet legend, final alignment, valve locations, surrounding streets, and significant project site locations. Construction plans shall be prepared using the NAVD 88 and NAD 83 survey standards.

Assuming Alternative 1 (reservoir located west of the existing access road) We envision the construction drawings will consist of the following sheets:

- General Sheets (4 sheets)
- Horizontal Control Plan (2 sheets)
- Site Demolition Plan (2 sheets)
- Demolition Detail Sheet (Cross-sections and belowground assumptions)
- Overall Site Plan
- Zone 8 Reservoir Construction Grading Plan (20 scale)
- Zone 8 Reservoir Cross Sections and Site Details
- Zone 8 Reservoir and RMS Building Final Grading Plan (20 scale)
- Zone 8 Reservoir Subgrade Preparation
- Zone 8 Reservoir Final Grading and Drainage Details (2 sheets)
- Zone 8 Reservoir and RMS Perimeter Wall and Details (Fire Protection Improvements)
- Zone 8 Reservoir SWPPP/Erosion Control Plan (2 sheets)
- Zone 8 to 9 Booster Pump Station Phasing Plan
- Zone 8 to 9 Booster Pump Station and Storage Building Site Plan and Precise Grading Plan (10 scale)
- Domestic Yard Piping Plan
- Drain Yard Piping Plan
- Reservoir Subdrain Piping Plan
- Inlet/Outlet Piping Profile
- Drain/Overflow Piping Profile
- Site Details (3 sheets)
- Surface Water Treatment Details
- Connection Details
- Piping Details (2 sheets)
- Reservoir Piping Details (2 sheets)
- Reservoir Miscellaneous Appurtenances (2 sheets)
- Reservoir Access Hatches/Ladders
- Reservoir Subdrain Details and Inspection Manhole (2 sheets)
- Corrosion Protection Details
- Miscellaneous Details
- Zone 8 to 9 Booster Pump Station Plan and Sections (3 sheets)
- RMS Building Plan and Section including sprinkler system (2 sheets)
- Storage Building and Diesel Storage Tank & Dispensing Facility Plan and Section (2 sheets)
- Diesel Dispensing Facility Sections and Details
- Surge Tank Plan and Sections
- Surge Tank and Air Compressor Details
- RMS Water Sample Piping Diagram
- Mechanical Details (6 sheets)
- Mechanical Symbols and Abbreviations
- Zone 8 to 9 Booster Pump Station - Electrical Room HVAC and Piping Plan

- Zone 8 to 9 Booster Pump Station - Office HVAC and Piping Plan
- Zone 8 to 9 Booster Pump Station - HVAC Section
- Zone 8 to 9 Booster Pump Station - Mechanical Details
- Zone 8 to 9 Booster Pump Station - Mechanical Schedules
- Zone 8 to 9 Booster Pump Station - Plumbing Symbols and Abbreviations
- Zone 8 to 9 Booster Pump Station - Plumbing Drainage Plan
- Zone 8 to 9 Booster Pump Station - Plumbing Supply Plan
- Zone 8 to 9 Booster Pump Station - Plumbing Details
- Zone 8 to 9 Booster Pump Station - Plumbing Schedules
- RMS Building - Chemical Building Ventilation and Heating Plan
- RMS Building - Plumbing Drainage Plan
- RMS Building - Plumbing Supply Plan
- Storage Building Ventilation and Heating Plan
- Storage Building Plumbing Drainage Plan
- Storage Building Plumbing Supply Plan
- Diesel Storage Tank Room HVAC and Piping Plan
- General Structural Notes and Special Inspection Requirements (3 sheets)
- Typical Structural Details (2 sheets)
- Building Foundation Details
- Building Wall Details
- Building Roof Framing Details (3 sheets)
- Zone 8 Reservoir Prestressing Notes
- Zone 8 Reservoir Foundation Plan
- Zone 8 Reservoir Roof Deck Plan
- Zone 8 Reservoir Roof Deck Reinforcing Plan
- Zone 8 Reservoir Wall Section and Elevation
- Zone 8 Reservoir Full Section
- Zone 8 Reservoir Roof Deck Reinforcing Sections
- Zone 8 Reservoir Foundation Details
- Zone 8 Reservoir Wall Details (2 sheets)
- Zone 8 Reservoir Roof Deck Details (2 sheets)
- Zone 8 to 9 Booster Pump Station Foundation Plan
- Zone 8 to 9 Booster Pump Station Roof Framing Plan
- Zone 8 to 9 Booster Pump Station Exterior Elevations
- Zone 8 to 9 Booster Pump Station Sections
- Storage Building Foundation Plan
- Storage Building Roof Framing Plan
- Storage Building Exterior Elevations
- Storage Building Sections
- RMS Building Foundation Plan
- RMS Building Roof Framing Plan
- RMS Building Exterior Elevations
- RMS Building Sections
- Electrical Symbols and Abbreviations
- Electrical Site Plan
- Power Site Plan (3 sheets)
- I&C Site Plan (3 sheets)

- Grounding Plan
- Lighting Plan
- Security Plan
- Single Line Diagram
- Schematic Diagram (2 sheets)
- Equipment Elevation Plan
- Motor Control Schematics
- Panel Schedule
- Conduit and Fixture Schedule
- Electrical Details (3 sheets)
- I&C Symbols and Abbreviations
- Piping & Instrumentation Diagrams (P&ID) (2 sheets)
- PLC Panel/RTU Layout Plan (2 sheets)
- Network Topology

**Total Number of Sheets: 138 sheets**

- C. **Electrical/Instrumentation.** Tetra Tech will prepare an operational scheme including P&IDs, single line diagrams, control equipment list, control loop descriptions, and method of integrating the proposed facilities into IRWD's existing SCADA system. Prior to this process, Tetra Tech will meet with IRWD electrical/automation staff to incorporate IRWD's standard operations, PLC and SCADA programming, and equipment tagging requirements into the design. Tetra Tech will develop and provide the operational scheme and functional descriptions (in plain English) for IRWD review and approval.
- D. **SCE Final Service Plan.** Tetra Tech will coordinate with SCE early in the design process to obtain the Final Service Plan, which shall be inserted in the appendix of the Project Manual. This task shall include the coordination efforts necessary to communicate the project requirements, address any comments from SCE, and implement all requirements into the project design. Tetra Tech will be responsible for obtaining SCE's approval for the proposed electrical service at the site.
- E. **Project Schedule.** Tetra Tech will maintain and consistently update the project schedule, which shall include detailed schedules for both design and construction activities. The schedule shall include all critical factors impacting the project schedule including implementation, permitting, and coordination activities to ensure that the project is completed in accordance with the proposed schedule. The schedule shall be prepared in Microsoft Project.
- F. **Opinion of Probable Construction Cost.** Tetra Tech will prepare a detailed and itemized opinion of probable construction cost for the proposed facilities, which shall be updated and submitted with each of the design deliverables described below.
- G. **Design Deliverables.** Deliverables shall be made as follows:
1. **60 Percent Design Submittal.** Eight (8) 11"x17" bound copies of the 60 percent submittal and one (1) CD containing a single PDF file of the entire plan set. Show civil/site, preliminary reservoir plans and sections, mechanical, and electrical plans. Show basic mechanical equipment, structural and architectural layouts, pipeline alignments, preliminary profiles, and existing utilities at a minimum. Provide a complete table of contents for the Project Manual.

2. **90 Percent Design Submittal.** Eight (8) 11"x17" bound copies of the 90 percent submittal and one (1) CD containing a single PDF file of the entire plan set. Show concepts of each component of the design such as civil, structural, mechanical, architectural, electrical and instrumentation. Show plan, profile, connections, details, and location of appurtenances. Plan and profile drawings and mechanical details/drawings shall be developed to a high level of detail. Provide five (5) color coded copies of the 90 percent Project Manual, including all sections; contract documents, general provisions, special provisions, general requirements, technical specifications, and appendix.
  3. **100 Percent Design Submittal.** Eight (8) 11"x17" bound copies of the 100 percent submittal, one (1) CD containing AutoCAD files for the entire plan set, and one (1) CD containing a single PDF file of the entire plan set. Include complete plans and five (5) color coded copies of the Project Manual, a notebook with the design calculations (including, but not limited to, mechanical, civil, structural, electrical, pipe thickness and restraint), and one (1) CD containing all MS Word files used in the preparation of the Project Manual.
  4. **Final Design Submittal.** One (1) full size final stamped and signed reproducible plan set with mylar cover sheet and one (1) original signed reproducible Project Manual for IRWD's signatures.
- H. **Addenda Preparation and Pre-Bid Meeting.** During the bidding period, Tetra Tech will assist with providing information and clarification of bid documents to prospective bidders. Tetra Tech will include budget for the preparation of up to three (3) addenda including revisions to the design plans and specifications and assistance with addressing bidder questions. At a minimum, addenda preparation activities shall include:
1. **Plan Revisions:** Tetra Tech will budget forty (40) hours of appropriate staff time for plan revisions to the construction drawings.
  2. **Specification Revisions:** Tetra Tech will budget twenty-five (25) hours of appropriate staff time for revisions or additions to the project specifications.
  3. **Bidder Questions:** Tetra Tech will budget forty (40) hours of appropriate staff time to address and respond to bidder questions.
  4. **Pre-Bid Meeting:** Tetra Tech will attend one (1) two-hour pre-bid meeting (conducted by IRWD). This will include a site visit with potential bidding contractors.

## PROJECT TEAM

The key for success on this project is the project team we have assigned and their relationship with IRWD and their previous reservoir experience. As with past assignments for IRWD, we propose to approach this assignment with a spirit of partnership with IRWD. This will enable us to combine the knowledge, ideas, and talents of IRWD's staff with our planning, design and construction experience to provide extraordinary results.

The following presentation introduces key members of our project team, all of whom have the knowledge, experience, and enthusiasm necessary to successfully complete your project. **It will be our collective goal to not only meet, but to exceed, your expectations.** The following paragraphs summarize the qualifications of our key project staff:

**Project Manager: Tom Epperson, PE,** will be the Project Manager and will provide the overall project direction, technical oversight, quality management, and ensure that the necessary resources are committed to Mike Tsoi in order to get the job done. Tom has over 39 years of experience and will provide his technical

expertise to assist the design team in the areas of constructability, specifications, review and as-needed project management support. Tom and Mike have been working together for 20 years on similar reservoir, pump station/wells and pipeline projects for IRWD (over 25 different projects).

**Team Leader: Mike Tsoi, PE**, will provide the project direction and coordination for Tetra Tech's project team and provide all day-to-day contact with IRWD staff. Mike has over 30 years of experience working on similar projects. As noted within the Project Approach Section of this Proposal, Mike has been working with Tom on over 25 projects for IRWD during the last 15 years. For the last nine years, Mr. Tsoi has been the key point of contact with IRWD on over 10 projects under the supervision and direction of Mr. Epperson, the Project Manager.

**Pump Station and Site Master Plan Task Leader: Laurence Esguerra, PE**, will perform the role as the Project Engineer as well as the Task Leader for the Pump Station and Site Master Plan portion of the work. Laurence has previously worked with IRWD on the following past projects: Zone 1-3 BPS; IDP Wells, Well 78, Well 107 and the IDP Conveyance Pipelines.

**Reservoir and RMS Facility Task Leader: Erin Cabañero, PE**, will perform the role as the Task Leader for the Reservoir and RMS Facility portion of the work. Erin has previously worked with IRWD on the following past projects: 3.7 MG Zone 1 Reservoir, Dyer Road Well Field Surge Tanks, Peters Canyon Channel Water Capture and Reuse Pipeline, Sand Canyon Grade Separation, and Well 78.

**Site Work/WQMP/SWPPP Task Leader: Nate Schreiner, PE, QSD**, will help coordinate permits, SWPPP and provide a technical memorandum for the Water Quality Management Plan Requirements to the IRWD. Nate has over 11 years of experience at Tetra Tech.

**Building Structural Task Leader: Victor Ramirez, PE, SE**, will assist our Project Manager and direct the activities of other members of the design team in the capacity of the Structural Buildings Team Leader. For the past 38 years Victor has been involved in the structural design of the majority of our water storage and pump station structures.

**Reservoir Structural Task Leader: Eric Yuen, PE, SE**, will assist our Project Manager and direct the activities of other members of the design team in the capacity of the Structural Reservoir Team Leader. For the past 12 years Eric has been involved in the structural design of the majority of our water storage and pump station structures as well as the 3.7 MG Zone 1 Reservoir.

**Electrical Task Leader: Mazen Kassar, PE**, will assist our Project Manager and direct the activities of other members of the design team in the capacity of the Electrical Task Leader. At Tetra Tech, Mazen has been responsible for the design of electrical systems for the majority of all of our water/wastewater facilities in Southern California.

**Controls System Task Leader: Astrid Fleischer, PE**, will assist our Project Manager and direct the activities of other members of the design team in the capacity of the Controls System Task Leader. At Tetra Tech, Astrid has been responsible for the design of SCADA improvements for the majority of all of our water/wastewater facilities in Southern California.

**Luke Ramirez (PE, LEED AP, and PMP)** will lead the design for the **Plumbing and HVAC** for the different buildings on the project.



**Architectural Renderings:** **Ota Ulc** created the renderings and fly-over video for the 3.7 MG Zone 1 Reservoir which is located within the City of Irvine.

**Quality Assurance/Quality Control:** Tetra Tech has assigned an independent QA/QC team including constructability review for the project. This team will provide independent review and input to the project team throughout the design process. They will be responsible for technical oversight as part of our team's commitment to quality assurance/quality control. **Mr. Ken Berard, PE**, will be in charge of the QA/QC team. Mr. Berard has been responsible for the design of over 20 reservoirs/tanks during the last 15 years, which are in addition to the 20 tanks that our Project Team has designed. Adding Ken to our Project Team, will bring the additional experience that was obtained from different clients within the Southern California service area. Our team will be able to gain the technical experience from these other projects, including the recent experience with NSF concrete approval during the construction of the Plant 224 Reservoirs for Suburban Water Systems.

In order to provide the full range of services required for this project, we have added several subconsultants to our project team. Tetra Tech will be responsible for coordinating and integrating the efforts of each subconsultant. They will serve IRWD as subconsultants to Tetra Tech.

**Surge Analysis:** **Scott Foster Engineering, Inc.**

**Geotechnical Investigation:** **Leighton Consulting (DIR Registration #: 1000007443)**

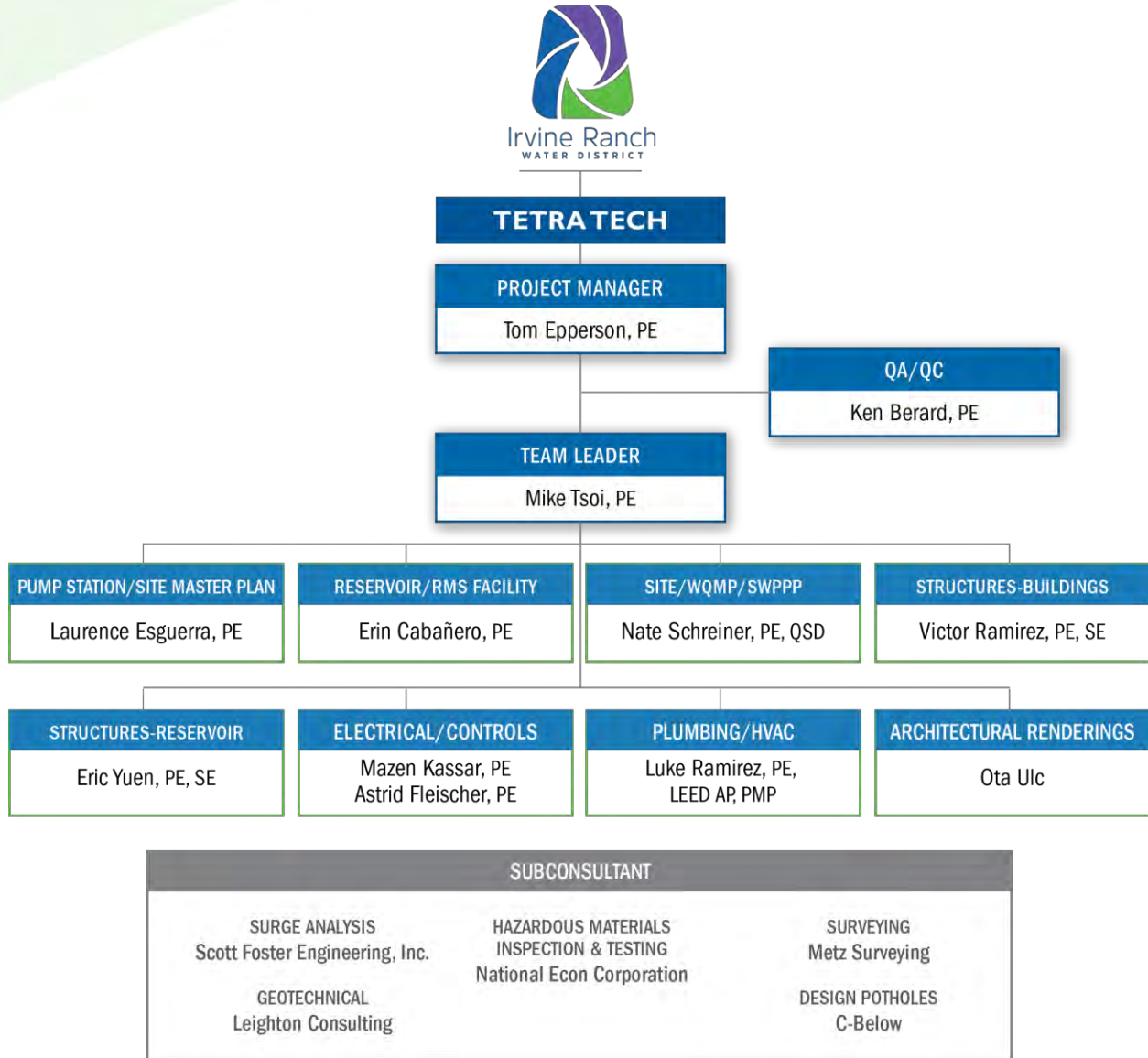
**Hazard Materials  
Inspection and Testing:** **National Econ Corporation**

**Surveying:** **Metz Surveying (DIR Registration #: 1000045062)**

**Design Potholes:** **C Below**

We have included resumes in Appendix C.

**P R O J E C T   T E A M   C H A R T**



**Fee Proposal**  
**Irvine Ranch Water District**  
**Fleming Zone 8 Reservoir and Zone 8 to 9 Booster Pump Station Project**  
**Submitted by Tetra Tech**

**Fee Summary**

Task Description	Sr. Project Manager	Project Manager 2	Project Manager 1	Project Engineer	Design Engineer	CADD	Word Processor	Total Hours	Fees		TOTALS
									Labor	Sub-Contractors Re-imbursables	
<b>1 Project Management</b>											
Project Status Report (64/16) Meetings (19) and Workshops (3) (2 hr/mtg)	16			80	4			100	\$19,000		\$19,000
Constructability Review and QA/QC	44	16	24	60			8	152	\$34,740	\$460	\$35,200
	100							100	\$33,000		\$33,000
<b>Subtotal</b>	<b>160</b>	<b>16</b>	<b>24</b>	<b>140</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>352</b>	<b>\$86,740</b>	<b>\$460</b>	<b>\$87,200</b>
<b>2 Preliminary Design Report</b>											
Review background information			2	4	8			14	\$2,140		\$2,140
Hydraulic Analysis & Pump Selection	4		8	16	32	16		76	\$11,480		\$11,480
Utility Research			2	4	8		4	18	\$2,580	\$300	\$2,880
Design Potholes (4 potholes)			2	4	4		1	7	\$1,070	\$4,600	\$5,670
Zone 8 Reservoir Siting (Tech Memo)	4		24	40	60	40	4	172	\$25,440		\$25,440
Reservoir Management System			2	4	8	8		22	\$2,940		\$2,940
Pump Station Building Configuration Storage and Diesel Storage Building Configuration	2		4	8	16	8		38	\$5,740		\$5,740
Site Master Plan (Tech Memo)	4		16	30	40	40	4	134	\$19,430		\$19,430
Architectural Renderings (3 layouts)				8	12	16		36	\$4,480	\$7,000	\$11,480
Construction Phasing			8	8	8	4		28	\$4,520		\$4,520
Surge Analysis			4	8	4		1	17	\$2,830	\$16,560	\$19,390
Site Electrical Service		8			40			48	\$7,280		\$7,280
Electrical and Controls		24		86	150			260	\$39,930		\$39,930
Structural Preliminary Design		24	14	36	70	4		148	\$21,440		\$21,440
Geotechnical Investigation			2	4	4		1	7	\$1,070	\$37,375	\$38,445
Hazardous Materials Inspection			2	4	8		1	15	\$2,250	\$5,530	\$7,780
Hazardous Materials Testing								0	\$0	\$7,500	\$7,500
Surveying Services			2	12	12	8	1	35	\$4,890	\$6,975	\$11,865
Permits and Coordination			8	36	24	8	4	80	\$12,060		\$12,060
Permit Fees								0	\$0	\$5,000	\$5,000
Water Quality Management Plan Requirements/SWPPP		10	20	40	30	126		226	\$30,100		\$30,100
CEQA Documentation Assistance			4	12	12	4	1	33	\$4,930	\$70	\$5,000
Project Schedule			2	4	8			14	\$2,140		\$2,140
Opinion of Probable Construction Cost Preliminary Design Report (PDR) Preparation	2		6	8	16			32	\$5,380		\$5,380
Reproduction/ Mileage	4		24	40	24	24	4	120	\$19,160		\$19,160
								0	\$0	\$330	\$330
<b>Subtotal</b>	<b>20</b>	<b>66</b>	<b>160</b>	<b>380</b>	<b>580</b>	<b>380</b>	<b>30</b>	<b>1616</b>	<b>\$238,360</b>	<b>\$91,240</b>	<b>\$329,600</b>
<b>3 Final Design</b>											
Project Manual	8	2	8	24			8	50	\$9,760		\$9,760
Construction Plans									\$0		\$0
General and Construction Notes (4 sheets)			4	12	16	30		62	\$7,940		\$7,940
Horizontal Control Plan (2 sheets) Site Demolition Plans and Sections (3 sheets)			8	14	24	36		82	\$10,790		\$10,790
Overall Site Plan			2	4	8	12		26	\$3,340		\$3,340
Reservoir Construction Grading Plan Reservoir Cross Sections and Site Details	1		4	10	16	24		55	\$7,340		\$7,340
Reservoir & RMS Building Final Grading Plan	1		2	8	16	16		43	\$5,770		\$5,770
Reservoir Subgrade Preparation Reservoir Final Grading and Drainage Details (2 sheets)	1		4	8	16	24		53	\$7,010		\$7,010
Reservoir and RMS Perimeter Wall and Details SWPPP/Erosion Control Plan (2 sheets)			2	8	8	16		34	\$4,400		\$4,400
BPS Phasing Plan BPS and Storage Building Site & Grading Plan	1		4	8	16	12		40	\$5,480		\$5,480
Yard Piping Plan and Profiles (5 shts)	1		8	16	30	60		115	\$14,630		\$14,630
Site Details (3 sheets)	1		4	12	20	36		73	\$9,390		\$9,390
Surface Water Treatment Details			4	8	12	12		36	\$4,960		\$4,960
Connection Details			4	8	16	12		40	\$5,480		\$5,480
Piping Details (2 sheets) Reservoir Piping, Appurtenances, Miscellaneous Details (5 sheets) Subdrain Piping Details/Inspection MH (2 sheets)	1		6	12	24	60		103	\$12,750		\$12,750
Corrosion Protection Details	1		2	4	8	24		39	\$4,870		\$4,870
Miscellaneous Details			4	8	12	12		36	\$4,960		\$4,960
Miscellaneous Details			4	6	16	8		34	\$4,750		\$4,750
BPS Plan and Sections (3 sheets)	1		8	16	30	36		91	\$12,230		\$12,230
RMS Plan and Section (2 sheets) Storage Building and Diesel Fuel Plan and Sections (2 sheets) Diesel Dispensing Facility Sections and Details	1		8	12	24	24		69	\$9,590		\$9,590
Surge Tank Plan, Sections and Details (2 sheets)	1		4	8	16	12		40	\$5,480		\$5,480
RMS Water Sample Piping Diagram			4	8	12	12		36	\$4,960		\$4,960
Mechanical Details (6 sheets)			6	22	40	64		132	\$16,550		\$16,550
HVAC and Plumbing (18 sheets)				172	237			409	\$59,190		\$59,190
Structural Plans (34 sheets)		24	30	100	215	10		379	\$48,440		\$48,440
Electrical Plans (21 sheets)		20			260			280	\$39,000		\$39,000
Instrumentation Plans (6 sheets)		16		80				96	\$17,360		\$17,360
Electrical/Instrumentation		28		84	10			122	\$22,440		\$22,440
SCE Final Service Plan		4		40				44	\$6,240		\$6,240
Project Schedule			2	8	8			18	\$2,800		\$2,800
Opinion of Probable Costs	2	2	6	12	8			30	\$5,520		\$5,520
Final Design Deliverables				8	11	15	2	36	\$4,470		\$4,470
Agenda Preparation and Pre-Bid Meeting	8	4	8	24	8	8	4	64	\$11,680		\$11,680
Reproduction/ Mileage								0	\$0	\$7,560	\$7,560
<b>Subtotal</b>	<b>30</b>	<b>100</b>	<b>180</b>	<b>700</b>	<b>1200</b>	<b>940</b>	<b>24</b>	<b>3174</b>	<b>\$443,640</b>	<b>\$7,560</b>	<b>\$451,200</b>
<b>Total</b>	<b>210</b>	<b>182</b>	<b>364</b>	<b>1220</b>	<b>1784</b>	<b>1320</b>	<b>62</b>	<b>5142</b>	<b>\$ 768,740</b>	<b>\$ 99,260</b>	<b>\$ 868,000</b>
<b>Optional Items</b>											
Surge Analysis (Cabinland & Manning Pump Stations)		4		8	4		2	18	\$3,100	\$6,900	\$10,000
<b>Total + Optional Items</b>	<b>210</b>	<b>186</b>	<b>364</b>	<b>1228</b>	<b>1788</b>	<b>1320</b>	<b>64</b>	<b>5160</b>	<b>\$ 771,840</b>	<b>\$ 106,160</b>	<b>\$ 878,000</b>



December 16, 2019  
Prepared and  
Submitted by: K. Swan  
Approved by: Paul A. Cook

## ACTION CALENDAR

### ANNUAL BOARD OF DIRECTORS' FEES

#### SUMMARY:

The Finance and Personnel Committee annually reviews the Board of Directors' compensation and recommends to the Board to either accept or deny a fee increase for the new calendar year. Pursuant to the District's Ordinance No. 1989-1 and enacted under Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year, not exceed an amount equal to five (5%) percent, and no compensation for more than 10 days in a calendar month.

#### BACKGROUND:

The most recent Board of Directors' compensation increase was effective in January 2019. The current compensation for the Board of Directors is \$286 per meeting, not to exceed 10 meetings per calendar month. In accordance with Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year by five (5%) percent, subject to acceptance or rejection by the Board. If the Board accepts the increase, the resulting per meeting fee will be \$300 (rounded to the nearest dollar).

Provided as Exhibit "A" is a survey of the Director Fees for other local water districts for comparative purposes.

#### FISCAL IMPACTS:

A 5% increase has a nominal impact on the operating budget if accepted by the Board.

#### ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act (CEQA), Code of Regulations, Title 14, Chapter 3, Section 15378.

#### COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on November 5, 2019.

#### RECOMMENDATION:

THAT THE BOARD EITHER ACCEPT OR DECLINE THE FIVE (5%) PERCENT COMPENSATION INCREASE FOR CALENDAR YEAR 2020.

#### LIST OF EXHIBITS:

Exhibit "A" – Survey of Director Fees

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**EXHIBIT "A"**

**BOARD OF DIRECTORS PER DIEM SURVEY  
(as of October 29, 2019)**

<b>AGENCY</b>	<b>PER DIEM MEETING</b>	<b>EFFECTIVE DATE</b>	<b>MAXIMUM MEETINGS PER MONTH</b>
El Toro Water District	\$219.00	March 2018	10
Irvine Ranch Water District	\$286.00	January 2019	10
Mesa Water District	\$291.00	July 2019	10
Moulton Niguel Water District	\$231.00	February 2019	10
Municipal Water of Orange County	\$311.84	January 2019	10
Orange County Water District	\$300.00	March 2019	10
Santa Margarita Water District	\$270.00	November 2019	10
South Coast Water District	\$255.00	August 2019	10
Yorba Linda Water District	\$150.00	January 2003	10

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December 16, 2019  
Prepared and  
Submitted by: L. Bonkowski  
Approved by: Paul A. Cook



ACTION CALENDAR

ELECTION OF OFFICERS FOR 2019

SUMMARY:

The Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the President and Vice President is one year, or until the election and qualification of their successors. On December 10, 2018, Director Douglas LaMar was elected to the office of President and Director Matheis was elected to the office of Vice President for 2019.

While there are no formal election procedures set forth in the Bylaws, it is suggested that the General Manager be appointed temporary Chairman to conduct the election of President. The temporary Chairman would open nominations, accept nominations which need not be seconded, accept a motion to close the nominations, and conduct the balloting by voice vote. The President would then conduct the election of the Vice President in a similar manner.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT AN ELECTION BE CONDUCTED OF THE PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS OF THE IRVINE RANCH WATER DISTRICT.

LIST OF EXHIBITS:

None.

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