

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

**December 12, 2016**

**PLEDGE OF ALLEGIANCE**

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

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

**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 five 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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**WORKSHOP**

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3.     IRWD WATER SUPPLY RELIABILITY EVALUATION

Staff will present the results from IRWD's 2016 Water Supply Reliability Evaluation.

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**CONSENT CALENDAR**

**Resolution No. 2016-26**

**Items 4-12**

4.     MINUTES OF REGULAR BOARD MEETINGS

Recommendation: That the minutes of the November 28, 2016 Regular Board Meeting be approved as presented.

5.     COMMENDATION OF ASSISTANT SECRETARY SAVEDRA AND EXPIRATION OF APPOINTMENT DUE TO RETIREMENT

Recommendation: That the Board commend Nancy Savedra for her 11 years of service as Assistant Secretary, expire the appointment of Nancy Savedra as Assistant Secretary with regret effective December 31, 2016, and wish her the best in her well-deserved retirement.

**CONSENT CALENDAR - Continued**

**Resolution No. 2016-26**

**Items 4-12**

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

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

7. NOVEMBER 2016 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for November 2016, and disclosure report of reimbursements to board members and staff; approve the November 2016 summary of payroll ach payments in the total amount of \$1,825,442 and approve the November 2016 accounts payable disbursement summary of warrants 372431 through 373187, workers' compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$21,857,804.

8. FY 2015-16 COMPREHENSIVE ANNUAL FINANCIAL REPORT

Recommendation: Receive and file.

9. PROPOSED 2017 INVESTMENT POLICY

Recommendation: That the Board approve the proposed 2017 Investment Policy, and adopt a Resolution approving investment policy and authorizing the Treasurer and Assistant Treasurers to invest and reinvest funds of the District and of each of its Improvement Districts and to sell and exchange securities.

10. FINANCIAL SYSTEM UPGRADE AND PROJECT MANAGEMENT IMPLEMENTATION CONSULTANT SERVICES VARIANCE APPROVAL

Recommendation: That the Board authorize the General Manager to execute a Variance to the agreement with KPMG for Variance No. 4 in the amount of \$100,880 for the Financial Systems Upgrade and Project Management Implementation Agreement.

Reso No. 2016-

<b>CONSENT CALENDAR – Continued</b>	<b>Resolution No. 2016-26</b>	<b>Items 4-13</b>
11. <u>PLANNING AREA 6 (PORTOLA SPRINGS) CAPITAL IMPROVEMENTS</u>	Recommendation: That the Board authorize the General Manager to accept Irvine Community Development Company's construction contract with Boudreau Pipeline Corporation in the amount of \$199,240 for the Portola Springs Neighborhood 4B Improvements, project 5243; and to accept Irvine Community Development Company's construction contract with Boudreau Pipeline Corporation in the amount of \$150,003 for the Portola Springs Neighborhood 5A Improvements, project 6915.	
12. <u>MICHELSON WATER RECYCLING PLANT FILTER PUMP STATION 2 AND WELLS 12 AND 13 ROOF MODIFICATIONS FINAL ACCEPTANCE</u>	Recommendation: That the Board accept construction of the Michelson Water Recycling Plant Filter Pump Station 2 and Wells 12 and 13 roof modifications, projects 5453 and 5469; 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>ACTION CALENDAR</b>		
13. <u>ON-CALL CONSTRUCTION INSPECTION SERVICES VARIANCE</u>	Recommendation: That the Board authorize the General Manager to execute Variance No. 1 with CivilSource in the amount of \$1,219,360 for on-call construction inspection services for two inspectors for a two-year period.	
14. <u>CONSULTANT SELECTION TO USE AERIAL IMAGERY TO DETERMINE IRRIGATED AREAS</u>	Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Eagle Aerial Solutions to provide aerial imagery irrigated area analysis services in the amount of \$159,299 which includes an optional \$38,486 in services to update the analysis results to account for changes in irrigated area that will occur in Fiscal Year 2017-18.	

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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, 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.

15. A. General Manager's Report

B. Directors' Comments

C. CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL RELATIVE TO ANTICIPATED LITIGATION PURSUANT TO GOVERNMENT CODE SECTION 54956.9(D)(4) (ONE POTENTIAL CASE); and

CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL RELATIVE TO EXISTING LITIGATION - Government Code Section 54956.9(d)(1) IRWD v. OCWD (Case No.30-2016-00858584-CU-WM-CJC).

D. OPEN SESSION

E. ADJOURNMENT

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 12, 2016

Prepared and

Submitted by: L. Bonkowski 

Approved by: P. Cook 

CONSENT CALENDAR

MINUTES OF BOARD MEETING

SUMMARY:

Provided are the minutes of the November 28, 2016 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE NOVEMBER 28, 2016 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – November 28, 2016 Minutes

## EXHIBIT "A"

### MINUTES OF REGULAR MEETING – NOVEMBER 28, 2016

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 Matheis on November 28, 2016 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Swan, Matheis, Reinhart, LaMar and Withers.

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Water Policy Weghorst, Executive Director of Engineering and Water Quality Burton, Director of Water Resources Sanchez, Director of Administration Services Mossbarger, Director of Public Affairs Beeman, Director of Human Resources Roney, Assistant Director of Maintenance Drake, Legal Counsel Arneson (via teleconference), Secretary Bonkowski, Government Relations Officer Compton, Principle Engineer Akiyoshi, Mr. Barkev Meserlian, Mr. Allen Shinbashi, Ms. Maren O'Haren, Mr. Jake Vollebregt and other members of the public and staff.

ORAL AND WRITTEN COMMUNICATIONS: None.

### CONSENT CALENDAR

On MOTION by Reinhart, seconded and unanimously carried, CONSENT CALENDAR ITEMS 3 THROUGH 5 WERE APPROVED AS FOLLOWS:

3. MINUTES OF REGULAR BOARD MEETINGS

Recommendation: That the minutes of the November 14, 2016 Regular Board Meeting be approved as presented.

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

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

5. OCTOBER 2016 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for October 2016, and disclosure report of reimbursements to Board members and staff; approve the October 2016 summary of payroll ACH payments in the total amount of \$1,656,752 and approve the October 2016 accounts payable disbursement summary of warrants 371567 through 372430, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$27,302,904.

## ACTION CALENDAR

### REVIEW OF 2016 LEGISLATIVE ACTIVITIES AND 2017 LEGISLATIVE PLANNING

The District's consultant, Ms. Mareen O'Haren, provided a recap of 2016 state activities along with a brief forecast for 2017. Government Relations Officer Compton noted Exhibits A and B in the write-up and asked the Board to let her know if there were any concerns relative to legislative/regulatory issues and activities of high concern to the District in 2017.

### ENTERPRISE ASSET MANAGEMENT SOFTWARE PROCUREMENT AND IMPLEMENTATION

Using a PowerPoint presentation, Mr. Barkov Meserlian provided an overview of the implementation of an Enterprise Asset Management (EAM) program which will provide the District the ability to derive maximum value from its business assets, from acquisition to retirement. Mr. Meserlian said that the term Enterprise Asset Management program refers to the lifecycle management of assets through its various states: planning, design, construction, commissioning, operation, maintenance, and decommissioning or replacement. He said that an EAM system records the state and criticality of assets, identifies rehabilitation and replacement needs, and enhances the planning and scheduling of maintenance activities. The system capabilities can ultimately be expanded from the management of core assets (pumps, reservoirs, pipes, hydrants, etc.) to support other types of assets within a water and resource recovery utility such as vehicles, information system equipment, laboratory equipment, and regulatory compliance reports.

Mr. Meserlian said that staff considered multiple software vendors for the new EAM software. Benchmarking visits helped solidify the decision to select IBM Maximo as the District's EAM platform. The District negotiated a final price with IBM for a package of Maximo licenses. Maximo's total cost of \$313,210.80, which includes one year of IBM technical support services, is guaranteed through December 12, 2016. Technical support services beyond the first year, estimated at approximately 20% of the procurement cost, will be included in IRWD's future annual operating budgets. To enhance the administration of Maximo, and provide additional help tools for the end-user, staff recommends the installation of an add-on software developed by the implementer TRM. Total cost for this add-on software is \$41,052, which includes one year of technical support services. The Maximo software solution will require additional hardware components as well as upgrades to existing equipment. The additional hardware includes servers to host Maximo environments. The Oracle Database software required for Maximo is already included in the District's Unlimited License Agreement (ULA), and does not require additional expenditure. The procurement cost of hardware required to implement Maximo is \$165,000.

Mr. Meserlian said that with the input of various IRWD groups, the District's Asset Management consultant, Kayuga Solution, led the effort in preparing a Request for Proposal (RFP) for Part 1 of the Maximo implementation process. The RFP was issued to six consultants with relevant experiences and that four consultants submitted proposals. He said that after completing a thorough evaluation of the proposals, Total Resources Management (TRM) was selected as the clear first choice.

Mr. Meserlian said that in January 2015, the services of a specialty EAM consultant (Mr. Iday Syachrani, PhD., of Kayuga Solution) were retained to optimize the District's approach to EAM, and provide day-to-day management of the District's asset management team. Kayuga's services were also utilized in Summer 2016 for the preparation of the Maximo implementation RFP. Staff is

seeking to extend the services of Kayuga Solution through December 2017 to provide Asset Management Support and provide Maximo Implementation Support. Kayuga staff will provide technical support services during the implementation, ensuring a successful transition to IBM Maximo.

Director Reinhart said that this item was reviewed and approved by the Engineering and Operations Committee on November 10, 2016. In response to Director Swan's request, Executive Director of Finance and Administration Clary said that staff will be including Enterprise Asset Management as a key performance indicator. On MOTION by Reinhart, seconded and unanimously carried, THE BOARD APPROVED THE PROCUREMENT OF SOFTWARE AND HARDWARE FOR A NOT-TO-EXCEED COST OF \$545,000; AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH TOTAL RESOURCES MANAGEMENT FOR PHASE 2 IMPLEMENTATION - PART 1 WORK & ASSET MANAGEMENT, FOR A NOT-TO-EXCEED COST OF \$988,330; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES VARIANCE WITH KAYUGA SOLUTION FOR A NOT-TO-EXCEED COST OF \$202,020.

#### PLACING NOMINATION OF STEVEN LAMAR AS VICE PRESIDENT OF ACWA

President Matheis said that the Association of California Agencies (ACWA) Nominating Committee will be seeking nominations for a slate of candidates for Vice President and President of ACWA for a two-year term beginning spring 2017. This slate of candidates will be presented to the ACWA membership for election at the ACWA Fall Conference in November 2017. She said that Director Steven LaMar has expressed an interest in the position of Vice President of ACWA and staff has prepared a resolution placing his name as a potential nominee.

Director Swan asked staff to make a correction on the resolution. On MOTION by Swan, seconded and unanimously carried, THE BOARD SUPPORTED THE NOMINATION OF IRWD DIRECTOR STEVEN LAMAR FOR VICE PRESIDENT OF ACWA FOR A TWO-YEAR TERM BEGINNING JANUARY 1, 2018 AND THE FOLLOWING RESOLUTION WAS ADOPTED BY TITLE SUBJECT TO NON-SUBSTANTIVE CHANGES AND IN ACCORDANCE WITH ACWA'S REQUIREMENTS:

#### RESOLUTION NO. 2016-25

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
IRVINE RANCH WATER DISTRICT, ORANGE COUNTY, CALIFORNIA  
PLACING IN NOMINATION STEVEN LAMAR AS VICE PRESIDENT  
OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES

#### OTHER BUSINESS

#### GENERAL MANAGER'S REPORT

General Manager Cook said that the Orange County Flood District item agendized on November 22, 2016 relative to fee setting to generate additional revenues had been postponed, and that staff will be meeting with the Director of Public Works in the near future to discuss this item.

Mr. Cook said that he will be attending an ACWA conference in Anaheim this week.

### DIRECTORS' COMMENTS

Director LaMar reported on his attendance at ACC-OC's Thanksgiving reception held at the District's Learning Center, an ACWA Board meeting, and a lunch meeting with MWDOC's newly-elected Board member Megan Yoo Schneider.

Director Swan reported on his attendance at the ACC-OC Thanksgiving reception and a WACO Planning Meeting.

Director Matheis reported on her attendance at the ACC-OC Thanksgiving reception, an OCBC Awards Ceremony and an Irvine Community Prayer Breakfast.

Director Withers said that he is planning to attend the City of Tustin's swearing-in ceremony for its new council members on December 9, 2016.

Director Reinhart reported on his attendance at ACC-OC's Thanksgiving reception held at the District's Learning Center and said he was not able to attend MWDOC's Board meeting.

### CLOSED SESSION

President Matheis said that the following Closed Sessions would be held this evening:

CLOSED SESSION Conference with Real Property Negotiator (Government Code Section 54956.8).

Property: San Juan Capistrano Water and Sewer Infrastructure

Agency Negotiator: Paul Cook, General Manager

Purpose of Negotiations: Proposed Acquisition of Property - Price and Terms.

CLOSED SESSION Conference with Real Property Negotiator (Government Code Section 54956.8).

Property Parcels: 827-030-004, 827-030-005, 827-110-005, 827-110-006, 827-110-010, 827-110-011, 827-110-014, and 827-110-016, County of Riverside

Negotiating Parties: Lourenco Farm

Agency Negotiator: Paul Cook, General Manager

Purpose of Negotiations: Price and Term of Payment,

CLOSED SESSION Conference with Real Property Negotiator (Government Code Section 54956.8).

Property Parcels: 878-151-003, 878-210-001, 878-270-001, 878-270-002, 878-260-001, 878-260-002, County of Riverside

Negotiating Parties: Barnes and Berger

Agency Negotiator: Paul Cook, General Manager

Purpose of Negotiations: Price and Term of Payment.

CLOSED SESSION Conference with Real Property Negotiator (Government Code Section 54956.8).

Property Parcels: 815-180-018, 827-120-010, 827-130-005, 827-140-001, 830-050-004, 830-050-008, 830-50-010, 827-040-005, 827-040-004, 827-072-001, 827-072-002, 827-072-003, 827-072-004, 827-072-005, 827-072-010, 827-120-002, 827-120-001, 827-040-006, 827-050-003, 827-050-007, 827-050-005, 827-050-001, 827-020-002, 827-030-003, 827-020-004, 827-020-001, 827-020-018, 827-040-003, 827-050-002, 827-020-003, 815-180-011, 815-180-006, 815-180-003, 827-120-003, 827-120-004, 827-120-005, 827-120-007, 827-120-006, 827-120-008, 827-120-009, 827-120-011, 827-130-012, 827-040-001, 830-030-004,  
County of Riverside

Negotiating Parties: Williams

Agency Negotiator: Paul Cook, General Manager

Purpose of Negotiations: Price and Term of Payment.

### OPEN SESSION

Following the Closed Session, the meeting was reconvened with LaMar, Reinhart, Withers, Swan, and Matheis present. President Matheis said there was no action to report.

### ADJOURNMENT

There being no further business, President Matheis adjourned the meeting.

APPROVED and SIGNED this 12th day of December, 2016.

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President, IRVINE RANCH WATER DISTRICT

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Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

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Legal Counsel - Bowie, Arneson, Wiles & Giannone

December 12, 2016  
Prepared and  
Submitted by: L. Bonkowski  
Approved by: P. Cook

CONSENT CALENDAR

COMMENDATION OF ASSISTANT SECRETARY SAVEDRA  
AND EXPIRATION OF APPOINTMENT DUE TO RETIREMENT

SUMMARY:

As the Assistant District Secretary Nancy Savedra will be retiring from the District effective December 31, 2016, it is necessary to expire her appointment. Ms. Savedra has held this position for 11 years and during that time, has done an exemplary job, and staff commends her for these efforts.

Currently Ms. Joan Arneson also holds the position of Assistant Secretary.

FISCAL IMPACTS:

None

ENVIRONMENTAL COMPLIANCE:

Not applicable

RECOMMENDED MOTION:

COMMEND NANCY SAVEDRA FOR HER 11 YEARS OF SERVICE AS ASSISTANT SECRETARY, EXPIRE THE APPOINTMENT OF NANCY SAVEDRA AS ASSISTANT SECRETARY WITH REGRET EFFECTIVE DECEMBER 31, 2016, AND WISH HER THE BEST IN HER WELL DESERVED RETIREMENT.

LIST OF EXHIBITS:

None

December 12, 2016  
Prepared and  
Submitted by: N. Savedra   
Approved by: P. Cook 

CONSENT CALENDAR

RATIFY/APPROVE BOARD OF DIRECTORS’  
ATTENDANCE AT MEETINGS AND EVENTS

SUMMARY:

Pursuant to Resolution 2006-29 adopted on August 28, 2006, approval of attendance of the following events and meetings are required by the Board of Directors.

Events/Meetings

Steven LaMar

01/9-11/17 2017 NWRA Leadership Forum, Las Vegas, NV

Mary Aileen Matheis

12/06/16 Urban Water Institute Meeting @IRWD  
12/08/16 OCBC Holiday Event  
12/09/16 City of Tustin Council Meeting – New Councilmembers

Douglas Reinhart

12/15-16/16 CRWUA Annual Conference, Las Vegas, NV  
12/21/16 MWDOC Board Meeting

Peer Swan

12/07/16 OCWD Board Meeting  
12/07/16 Newport Bay Watershed Executive Committee Meeting  
12/08/16 OCBC Holiday Event  
12/21/16 OCWD Board Meeting  
12/28/16 Southern California Water Dialogue Meeting

John Withers

12/06/16 ISDOC Executive Committee Meeting  
12/08/16 OCBC Holiday Event  
12/13/16 City of Irvine Council Meeting – New Councilmembers

RECOMMENDATION:

THAT THE BOARD RATIFY/APPROVE THE MEETINGS AND EVENTS FOR STEVEN LAMAR, MARY AILEEN MATHEIS, DOUGLAS REINHART, PEER SWAN, AND JOHN WITHERS AS DESCRIBED.

LIST OF EXHIBITS:

None

December 12, 2016

Prepared by: Jennifer Davis/Tanja Fournier

Submitted by: Robert Jacobson/Cheryl Clary

Approved by: Paul Cook



## CONSENT CALENDAR

### NOVEMBER 2016 TREASURY REPORTS

#### SUMMARY:

The following is submitted for the Board's information and approval:

- A. The Investment Summary Report for November 2016. This Investment Summary Report is in conformity with the 2016 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Monthly Interest Rate Swap Summary as of November 30, 2016, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$1,825,442, as outlined in Exhibit "C".
- D. The November 30, 2016 Disbursement Summary of warrants 372431 through 373187, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$21,857,804 as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for November 2016, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

#### FISCAL IMPACTS:

As of November 30, 2016, the book value of the investment portfolio was \$443,024,547, with an 0.91% rate of return and a market value of \$441,536,924. Based on the District's September 30, 2016 quarterly real estate investment rate of return of 12.97%, the weighted average return for the fixed income and real estate investments was 2.60%.

As of November 30, 2016, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in November from all swaps was negative \$566,319.

Payroll ACH payments totaled \$1,825,442, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for November totaled \$21,857,804.

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 interest rate swap 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 MONTHLY INTEREST RATE SWAP SUMMARY FOR NOVEMBER 2016, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE NOVEMBER 2016 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,825,442 AND APPROVE THE NOVEMBER 2016 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 372431 THROUGH 373187, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$21,857,804.

LIST OF EXHIBITS:

Exhibit "A" – Investment Summary Report

Exhibit "B" – Monthly Interest Rate Swap Summary

Exhibit "C" – Monthly Payroll ACH Summary

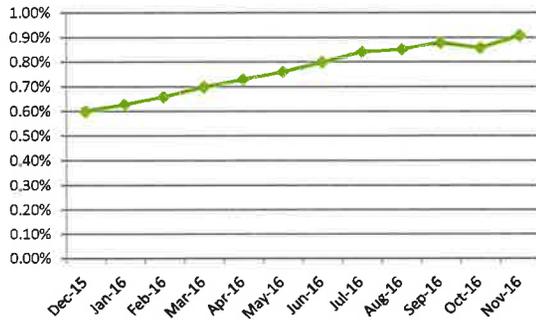
Exhibit "D" – Monthly Summary of District Disbursements

Exhibit "E" – Disclosure of Reimbursements to Board Members and Staff

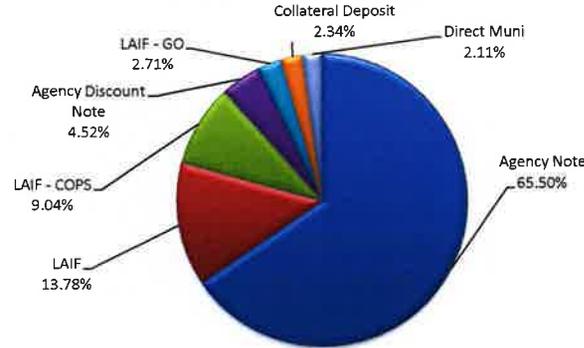
# Exhibit "A"

## Irvine Ranch Water District Investment Portfolio Summary November 2016

**Monthly Fixed Income Yield**



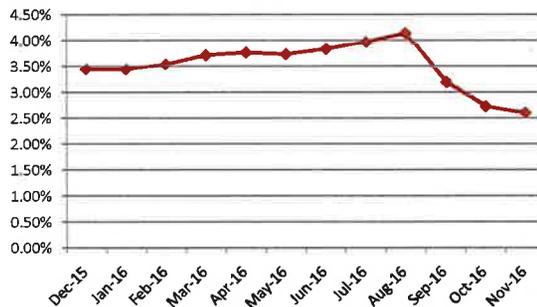
**Portfolio Distribution**



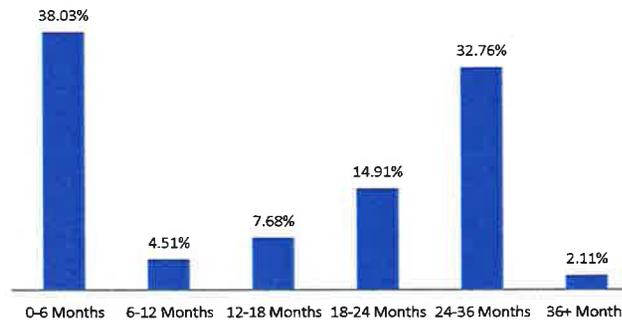
**Investment Summary**

Type	PAR	Book Value	Market Value
Agency Note	290,000,000	290,385,983	288,860,750
LAIF	61,000,000	61,000,000	61,018,668
LAIF - COPS	40,000,000	40,000,000	40,012,241
Agency Discount Note	20,000,000	19,973,322	19,976,350
LAIF - GO	12,000,000	12,000,000	12,003,672
Collateral Deposit	10,341,834	10,341,834	10,341,834
Direct Muni	9,323,408	9,323,408	9,323,408
<b>Grand Total</b>	<b>442,665,242</b>	<b>443,024,547</b>	<b>441,536,924</b>

**Weighted Average Return  
Including Real Estate Portfolio**



**Maturity Distribution**



**Top Issuers**

Issuer	PAR	% Portfolio
Fed Home Loan Bank	121,000,000	27.33%
State of California Treasury - LAIF	113,000,000	25.53%
Fed Home Loan Mortgage Corp	79,000,000	17.84%
Fed Natl Mortgage Assoc	70,000,000	15.81%
Fed Farm Credit Bank	40,000,000	9.04%
ETWD	9,323,408	2.11%
Citi-Group Collateral	6,611,834	1.49%
Merrill Lynch Collateral	3,730,000	0.85%
<b>Grand Total</b>	<b>442,665,242</b>	<b>100.00%</b>

IRVINE RANCH WATER DISTRICT  
INVESTMENT SUMMARY REPORT

11/30/16

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> 11/30/2016	UNREALIZED <sup>(2)</sup> GAIN/(LOSS)
08/19/16			12/01/16		LAIF	State of California Tsy.	\$61,000,000		0.680%	\$61,000,000.00	\$61,000,000.00	61,018,667.95	18,667.95
09/01/16			12/01/16		LAIF - COPS	State of California Tsy.	40,000,000		0.680%	\$40,000,000.00	\$40,000,000.00	40,012,241.28	12,241.28
10/12/16			12/01/16		LAIF - GO	State of California Tsy.	12,000,000		0.680%	\$12,000,000.00	\$12,000,000.00	12,003,672.38	3,672.38
09/21/15	N/A	N/A	12/09/16	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	0.532%	5,066,150.00	5,001,189.21	5,001,450.00	260.79
10/12/16	N/A	N/A	12/22/16	NR	FHLB - Discount Note	Fed Home Loan Bank	10,000,000	0.305%	0.310%	9,993,984.72	9,996,526.39	9,998,900.00	2,373.61
10/08/15	N/A	N/A	01/30/17	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.250%	0.492%	5,049,445.00	5,006,180.63	5,006,500.00	319.38
09/21/15	N/A	N/A	02/22/17	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.875%	0.570%	5,021,500.00	5,003,431.73	5,004,600.00	1,168.27
06/15/15	N/A	N/A	03/30/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.625%	0.727%	4,990,950.00	4,998,353.29	5,001,400.00	3,046.71
06/16/16	N/A	N/A	04/21/17	NR	FNMA - Discount Note	Fed Natl Mortgage Assoc	5,000,000	0.530%	0.539%	4,977,254.15	4,989,620.83	4,989,600.00	(20.83)
06/16/16	N/A	N/A	04/27/17	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	0.607%	5,022,271.95	5,010,393.58	5,009,650.00	(743.58)
06/16/16	N/A	N/A	05/12/17	NR	FNMA - Discount Note	Fed Natl Mortgage Assoc	5,000,000	0.570%	0.580%	4,973,875.00	4,987,175.00	4,987,850.00	675.00
08/27/15	N/A	N/A	05/30/17	NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.625%	0.642%	4,998,500.00	4,999,579.44	4,998,900.00	(679.44)
06/16/16	N/A	N/A	06/30/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.800%	0.614%	5,009,614.00	5,005,352.39	5,001,250.00	(4,102.39)
11/05/15	N/A	N/A	08/28/17	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	0.750%	0.800%	4,995,500.00	4,998,164.65	4,997,500.00	(664.65)
09/16/15	N/A	N/A	09/15/17	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.900%	0.915%	4,998,500.00	4,999,408.22	5,001,500.00	2,091.78
12/18/15	Continuous after	12/13/13	12/12/17	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.820%	1.132%	4,969,500.00	4,984,182.07	4,983,300.00	(882.07)
04/22/16	N/A	N/A	01/29/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	4,000,000	0.850%	0.856%	3,999,600.00	3,999,737.87	3,988,480.00	(11,257.87)
03/01/16	Quarterly	05/26/16	02/26/18	NR/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.050%	5,000,000.00	5,000,000.00	4,985,400.00	(14,600.00)
03/23/16	N/A	N/A	03/23/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.100%	0.908%	5,019,000.00	5,012,415.07	4,994,550.00	(17,865.07)
04/07/16	N/A	N/A	04/09/18	NA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.750%	0.790%	4,996,000.00	4,997,300.55	4,980,100.00	(17,200.55)
05/16/16	N/A	N/A	05/16/18	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.750%	0.801%	4,995,000.00	4,996,363.01	4,972,100.00	(24,263.01)
05/13/16	N/A	N/A	05/21/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.875%	0.768%	5,010,700.00	5,007,771.27	4,986,750.00	(21,021.27)
05/24/16	N/A	N/A	06/08/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	11,000,000	1.250%	0.995%	11,056,540.00	11,042,044.51	11,010,670.00	(31,374.51)
06/29/16	One Time	12/29/16	06/29/18	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.000%	0.679%	10,016,000.00	10,012,602.74	9,988,200.00	(24,402.74)
09/01/16	One Time	07/27/17	07/27/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	0.750%	0.928%	4,983,250.00	4,985,446.33	4,969,300.00	(16,146.33)
09/01/16	One Time	02/28/17	08/28/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.000%	1.000%	5,000,000.00	5,000,000.00	4,980,250.00	(19,750.00)
09/01/16	NA	NA	09/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.125%	0.916%	5,021,000.00	5,018,427.99	4,994,150.00	(24,277.99)
10/12/16	N/A	N/A	09/27/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	0.900%	0.952%	9,990,000.00	9,990,419.58	9,948,000.00	(42,419.58)
10/12/16	N/A	N/A	09/28/18	Aaa/AA+/AAA	FFCB - Note	Fed Farm Credit Bank	5,000,000	0.880%	0.942%	4,994,000.00	4,994,251.40	4,972,350.00	(21,901.40)
09/01/16	NA	NA	10/01/18	Aaa/AA+/NR	FFCB - Note	Fed Farm Credit Bank	5,000,000	1.030%	0.925%	5,010,750.00	5,009,462.83	4,984,550.00	(24,912.83)
10/12/16	One Time	04/12/17	10/12/18	Aaa/NR/NR	FFCB - Note	Fed Farm Credit Bank	10,000,000	1.000%	1.041%	9,992,000.00	9,992,328.77	9,936,400.00	(55,928.77)
10/12/16	N/A	N/A	11/27/18	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	10,000,000	1.625%	0.956%	10,140,360.00	10,134,933.71	10,088,600.00	(46,333.71)
09/01/16	NA	NA	12/14/18	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.750%	0.941%	5,091,300.00	5,081,338.01	5,052,750.00	(28,588.01)
09/01/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.009%	4,993,000.00	4,993,723.04	4,969,000.00	(24,723.04)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.035%	4,990,500.00	4,990,845.04	4,969,000.00	(21,845.04)
10/26/16	One Time	07/30/18	01/30/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.950%	1.040%	4,990,000.00	4,990,363.20	4,969,000.00	(21,363.20)
10/12/16	Continuous after	02/12/18	02/12/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.050%	1.093%	9,990,000.00	9,990,351.70	9,949,200.00	(41,151.70)
09/01/16	NA	NA	03/08/19	Aaa/AA+/AAA	FHLB - Note	Fed Home Loan Bank	5,000,000	1.500%	0.964%	5,066,500.00	5,059,907.95	5,024,650.00	(35,257.95)
10/12/16	One Time	03/29/17	03/29/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.050%	1.050%	4,999,950.00	4,999,951.67	4,964,600.00	(35,351.67)
10/12/16	N/A	N/A	04/15/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	10,000,000	1.125%	0.992%	10,032,800.00	10,031,724.59	9,956,200.00	(75,524.59)
10/31/16	One Time	04/26/17	04/26/19	Aaa/AA+/AAA	FHLMC - Note	Fed Farm Credit Bank	5,000,000	1.050%	1.060%	4,998,750.00	4,998,791.35	4,966,700.00	(32,091.35)
09/01/16	One Time	08/28/17	05/28/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.030%	1.048%	4,997,550.00	4,997,773.17	4,930,800.00	(66,973.17)

IRVINE RANCH WATER DISTRICT  
INVESTMENT SUMMARY REPORT

11/30/16

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> 11/30/2016	UNREALIZED <sup>(2)</sup> GAIN/(LOSS)
09/01/16	NA	NA	06/14/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	0.987%	5,087,400.00	5,079,571.85	5,032,850.00	(46,721.85)
10/12/16	NA	NA	06/14/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.625%	1.103%	5,068,515.88	5,066,407.70	5,032,850.00	(33,557.70)
10/12/16	NA	NA	07/19/19	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	0.875%	1.098%	4,969,652.90	4,970,554.30	4,934,300.00	(36,254.30)
09/01/16	One Time	01/26/17	07/26/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.180%	4,995,700.00	4,996,069.85	4,934,000.00	(62,069.85)
09/01/16	One Time	08/28/17	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.150%	1.160%	4,998,500.00	4,998,625.11	4,929,150.00	(69,475.11)
09/01/16	One Time	02/28/17	08/28/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.132%	4,999,000.00	4,999,083.41	4,925,700.00	(73,383.41)
09/28/16	Quarterly	03/09/17	09/09/19	Aaa/AA+/AAA	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.125%	1.142%	4,997,500.00	4,997,648.29	4,922,050.00	(75,598.29)
09/28/16	Continuous after	12/27/16	09/27/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.250%	1.189%	5,001,500.00	5,001,412.25	4,944,600.00	(56,812.25)
10/12/16	Continuous after	10/03/17	10/03/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	10,000,000	1.125%	1.160%	9,989,780.00	9,990,062.32	9,868,700.00	(121,362.32)
10/12/16	Continuous after	10/11/17	10/11/19	Aaa/AA+/NR	FHLC - Note	Fed Farm Credit Bank	10,000,000	1.120%	1.205%	9,975,000.00	9,975,685.56	9,876,500.00	(99,185.56)
11/08/16	Quarterly	05/08/17	11/08/19	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.250%	1.245%	5,000,750.00	5,000,734.25	4,961,400.00	(39,334.25)
11/28/16	NA	NA	11/15/19	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	5,000,000	1.375%	1.440%	4,990,550.00	4,990,576.20	4,984,500.00	(6,076.20)
11/28/16	Quarterly	05/25/17	11/25/19	Aaa/AA+/NR	FNMA - Note	Fed Natl Mortgage Assoc	5,000,000	1.400%	1.503%	4,985,000.00	4,985,041.21	4,976,350.00	(8,691.21)
05/30/15	N/A	N/A	04/30/36	NR	Direct Muni	ETWD	9,323,408	4.570%	4.570%	9,323,407.59	9,323,407.59	9,323,407.59	
SUB-TOTAL							<u>\$432,323,408</u>			<u>\$432,823,851.19</u>	<u>\$432,682,712.63</u>	<u>\$431,195,089.21</u>	<u>(\$1,487,623.43)</u>
<b>RESTRICTED CASH (Swap Collateral Deposits)<sup>(5)</sup></b>													
03/01/16					Collateral Deposit	Citi-Group	\$6,611,834		0.410%	\$6,611,834.37	\$6,611,834.37	6,611,834.37	
02/28/16					Collateral Deposit	Merrill Lynch	\$3,730,000		0.410%	\$3,730,000.00	\$3,730,000.00	3,730,000.00	
SUB-TOTAL							<u>\$10,341,834</u>			<u>\$10,341,834.37</u>	<u>\$10,341,834.37</u>	<u>\$10,341,834.37</u>	
<b>TOTAL INVESTMENTS</b>							<u>\$442,665,242</u>			<u>\$443,165,685.56</u>	<u>\$443,024,547.00</u>	<u>\$441,536,923.58</u>	
			October		Petty Cash Ck Balance	Bank of America				3,400.00 903,287.05			
										<u>\$444,072,372.61</u>			

<sup>(1)</sup> LAIF market value is as of the most recent quarter-end as reported by LAIF.  
<sup>(2)</sup> Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.  
<sup>(3)</sup> Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers  
<sup>(4)</sup> Real estate rate of return is based on most recent quarter end return  
<sup>(5)</sup> Calculation excludes Direct Muni - ETWD  
<sup>(6)</sup> Swap Collateral Deposits assumes 6 month maturity, dependent on interest rate changes

Outstanding Variable Rate Debt	\$307,100,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$177,100,000
Investment Balance:	\$444,072,373
Investment to Variable Rate Debt Ratio:	251%
Portfolio - Average Number of Days To Maturity <sup>(4)</sup>	461

	Investment Portfolio	Real Estate <sup>(3)</sup> Portfolio	Weighted Avg. Return
November	0.91%	12.97%	2.60%
October	0.86%	12.97%	2.73%
Change	0.05%		-0.13%

This Investment Summary Report is in conformity with the 2016 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.  
 \*S - Step up

IRVINE RANCH WATER DISTRICT  
SUMMARY OF MATURITIES

11/30/16

DATE	TOTAL	%	LAIF	Agency Notes	Agency Discount Notes	Collateral Deposit	Direct Muni
11/16	\$113,000,000	25.53%	\$113,000,000				
12/16	15,000,000	3.39%		5,000,000	10,000,000		
01/17	5,000,000	1.13%		5,000,000			
02/17	5,000,000	1.13%		5,000,000			
03/17	15,341,834	3.47%		5,000,000		\$10,341,834	
04/17	10,000,000	2.26%		5,000,000	5,000,000		
05/17	10,000,000	2.26%		5,000,000	5,000,000		
06/17	5,000,000	1.13%		5,000,000			
07/17							
08/17	5,000,000	1.13%		5,000,000			
09/17	5,000,000	1.13%		5,000,000			
10/17							
<b>SUB-TOTAL</b>	<b>\$188,341,834</b>	<b>42.55%</b>	<b>\$113,000,000</b>	<b>\$45,000,000</b>	<b>\$20,000,000</b>	<b>\$10,341,834</b>	
<b>13 Months - 3 YEARS</b>							
11/01/17-1/31/18	9,000,000	2.03%		9,000,000			
2/01/18 - 4/30/2018	15,000,000	3.39%		15,000,000			
05/01/18 - 7/31/2018	36,000,000	8.13%		36,000,000			
08/01/18 - 10/31/2018	40,000,000	9.04%		40,000,000			
11/01/2018-1/31/19	30,000,000	6.78%		30,000,000			
2/01/19 - 4/30/2019	35,000,000	7.91%		35,000,000			
05/01/2019 - 07/31/2019	25,000,000	5.65%		25,000,000			
08/01/2019 - 10/31/2019	40,000,000	9.04%		40,000,000			
11/01/2019 - 1/31/2020	15,000,000	3.39%		15,000,000			
04/30/2036	9,323,408	2.11%					9,323,408
<b>TOTALS</b>	<b>\$442,665,242</b>	<b>100.00%</b>	<b>\$113,000,000</b>	<b>\$290,000,000</b>	<b>\$20,000,000</b>	<b>\$10,341,834</b>	<b>\$9,323,408</b>

% OF PORTFOLIO

25.53%

65.50%

4.52%

2.34%

2.11%

Irvine Ranch Water District  
 Summary of Real Estate  
 9/30/2016

	<u>ACQUISITION DATE</u>	<u>PROPERTY TYPE</u>	<u>OWNERSHIP INTEREST</u>	<u>ORIGINAL COST</u>	<u>ESTIMATED MARKET VALUE 30-Jun-16</u>	<u>RATE OF RETURN QUARTER ENDED 30-Sep-16</u>
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	\$ 143,910,000	17.95%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	\$ 27,296,298	8.56%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	\$ 9,384,000	-2.42%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	\$ 7,650,000	5.66%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	\$ 10,608,000	8.45%
				<u>\$ 72,569,826</u>	<u>\$ 198,848,298</u>	12.97%

**IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT  
 INVESTMENT ACTIVITY  
 Nov-16**

**MATURITIES/SALES/CALLS**

**PURCHASES**

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
11/8/2016	FFCB - Note	\$5,000,000	0.82%	11/8/2016	11/8/2019	FNMA - Note	\$5,000,000	1.24%
11/28/2016	FHLB - Discount Note	\$10,000,000	0.28%	11/28/2016	11/15/2019	FHLB - Note	\$5,000,000	1.44%
				11/28/2016	11/25/2019	FNMA - Note	\$5,000,000	1.50%

**IRVINE RANCH WATER DISTRICT  
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL  
November 30, 2016**

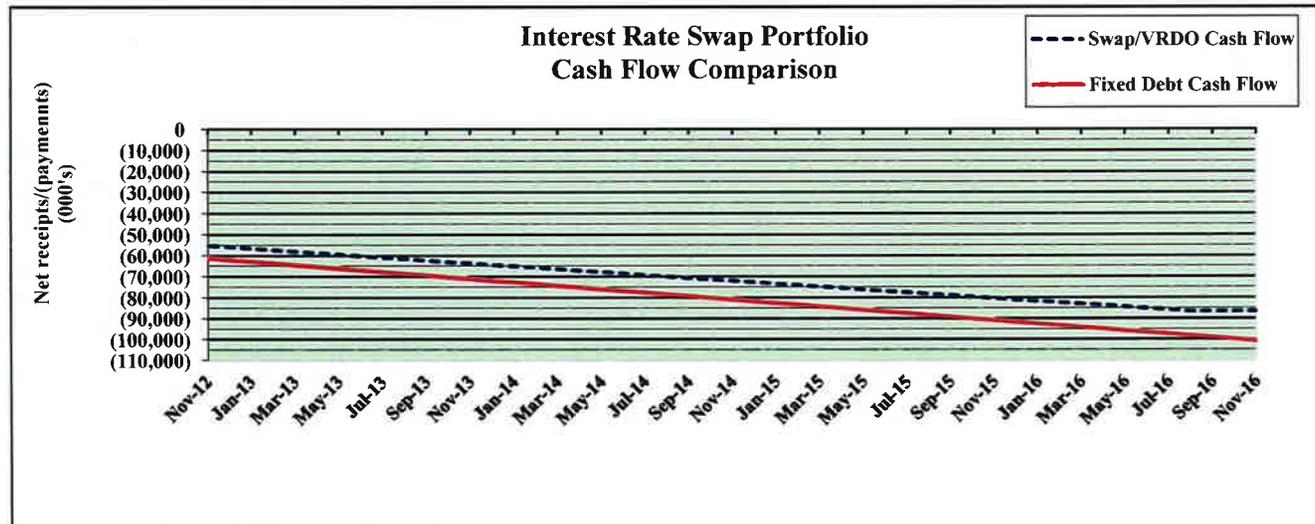
Exhibit "B"

<b>LIBOR Avg %</b>	<b>Prior Mo.</b>	<b>Current Mo.</b>	<b>12-Mo Avg</b>
	0.53%	0.56%	0.45%

Current Fiscal Year Active Swaps								Cash Flow				(Since 6/06)	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 Cash Flow	Current Mark to Market	Notional Difference	
<b>Fixed Payer Swaps - By Effective Date</b>														
6/4/2006	6/4/2019	2.5	ML	\$ 20,000,000	FXP	LIBOR	6.200%	(97,649)	(90,983)	\$ (473,535)	\$ (10,300,711)	\$ 17,553,147	\$ (2,446,853)	
6/4/2006	6/4/2019	2.5	CG	20,000,000	FXP	LIBOR	6.200%	(97,649)	(90,983)	(473,535)	(10,300,711)	17,555,983	(2,444,017)	
6/17/2006	6/17/2019	2.5	CG	30,000,000	FXP	LIBOR	6.140%	(144,859)	(136,215)	(703,930)	(15,282,381)	26,332,366	(3,667,634)	
3/10/2007	3/10/2029	12.3	ML	30,000,000	FXP	LIBOR	5.687%	(133,329)	(124,069)	(646,099)	(13,761,128)	18,549,906	(11,450,094)	
3/10/2007	3/10/2029	12.3	CG	30,000,000	FXP	LIBOR	5.687%	(133,329)	(124,069)	(646,099)	(13,761,128)	18,558,339	(11,441,661)	
<b>Totals/Weighted Avgs</b>		7.0		\$ 130,000,000			5.949%	\$ (606,815)	\$ (566,319)	\$ (2,943,198)	\$ (63,406,060)	\$ 98,549,741	\$ (31,450,259)	
<b>Total Current Year Active Swaps</b>				\$ 130,000,000				\$ (606,815)	\$ (566,319)	\$ (2,943,198)	\$ (63,406,060)	\$ 98,549,741	\$ (31,450,259)	

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 Cash Flow	Current Mark to Market	Notional Difference
<b>Total Current Year Terminated Swaps</b>								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Current Fiscal Year - Total Swaps								Cash Flow				Mark to Market	
Prior Month	Current Month	Fiscal YTD	Cumulative Cash Flow	Current Mark to Market	Notional Difference								
\$ (606,815)	\$ (566,319)	\$ (2,943,198)	\$ (63,406,060)	\$ 98,549,741	\$ (31,450,259)								



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$88,646,684
Fixed Rate =	\$106,151,468
<b>Assumptions:</b>	
- Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg)	
- 'Synthetic' includes swap cash flow + interest + fees to date	

Exhibit "C"

**MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS**

**November  
2016**

	AMOUNT	VENDOR	PURPOSE
11/10/2016	996,980.80	BANK OF AMERICA	ACH Payments for Payroll
11/25/2016	828,460.91	BANK OF AMERICA	ACH Payments for Payroll
	<u><u>\$1,825,441.71</u></u>		

# Exhibit "D"

>

IRWD Ledger

Void Payment Register

Report Date: 01-DEC-2016 16:50

Include Zero Amount Payments: Yes  
 Display Payee Address: No

Period From: 01-NOV-16

Page: 1  
 To: 30-NOV-16  
 Date: Void Date

Bank: Bank of America N.A.

Branch: Los Angeles

Account: Checking AP and PR

Bank Account Currency: USD

Payment Currency: USD ( US Dollar )

Payment Number	Date	Payee Name	Site	Address	Payment Amount	Void Date
Payment Document: IRWD CHECK						
369612	04-AUG-16	PHAN, HENRY	PAY		32.87	30-NOV-16
371426	29-SEP-16	IRWD	IRVINE		100.00	02-NOV-16
371490	29-SEP-16	ORANGE COUNTY SHERIFF'S OFF	4601 JAMBOREE		62.50	16-NOV-16
371502	29-SEP-16	PRICE, MAUREEN	PAY		230.07	02-NOV-16
371616	06-OCT-16	CHANG, JULIE	PAY		367.44	02-NOV-16
372210	20-OCT-16	ROWLEY, C	PAY		139.77	22-NOV-16
372276	27-OCT-16	Perez, Cesar (Cesar)	HOME		77.76	02-NOV-16
372470	03-NOV-16	CHEN, TING	PAY		93.57	15-NOV-16
372522	03-NOV-16	IRWD	IRVINE		100.00	07-NOV-16

Payment Document Subtotal 1,203.98

Bank Account Subtotal 1,203.98

Report Total 1,203.98

Report Count: 9

**Voids**

\*\*\* End of Report \*\*\*

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IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372431		01-NOV-16	JCI JONES	CININNATI	4,653.14	04-NOV-16	4,653.14	Reconciled
372432		01-NOV-16	CHEMICALS INC					
			IRWD EMPLOYEE ASSOCIATION	15600 SC	750.00	09-NOV-16	750.00	Reconciled
372433		03-NOV-16	Rutherford, Allan		172.00	08-NOV-16	172.00	Reconciled
372434		03-NOV-16	Shinbashi, Allen		37.88	18-NOV-16	37.88	Reconciled
372435		03-NOV-16	Pham, Amie		113.18	09-NOV-16	113.18	Reconciled
372436		03-NOV-16	Yue, Andrew R (Andrew)		113.37			Negotiable
372437		03-NOV-16	Jackson, Bradley E (Brad)		50.00	21-NOV-16	50.00	Reconciled
372438		03-NOV-16	Perez, Cesar (Cesar)		77.76	15-NOV-16	77.76	Reconciled
372439		03-NOV-16	Barreto, Gustavo (Gus)		170.00	21-NOV-16	170.00	Reconciled
372440		03-NOV-16	Shih, Han-Tsuei (Josephine)		109.63	14-NOV-16	109.63	Reconciled
372441		03-NOV-16	Nash, Joel		90.72	07-NOV-16	90.72	Reconciled
372442		03-NOV-16	Reideler, Kevin		255.00	14-NOV-16	255.00	Reconciled
372443		03-NOV-16	Oldewage, Lars D (Lars)		202.96	07-NOV-16	202.96	Reconciled
372444		03-NOV-16	Cortez, Malcolm A (Malcolm)		45.36			Negotiable
372445		03-NOV-16	Hoffman, Michael S (Mike)		93.00			Negotiable
372446		03-NOV-16	Moore, Rory M (Rory)		172.00			Negotiable
372447		03-NOV-16	ACWA		36,580.00	14-NOV-16	36,580.00	Reconciled
372448		03-NOV-16	ALTA NURSERY, INC.		1,208.00	09-NOV-16	1,208.00	Reconciled
372449		03-NOV-16	ANDERSONPENNA PARTNERS, INC.		49,508.00	09-NOV-16	49,508.00	Reconciled
372450		03-NOV-16	ANTHONY N. LARSEN		400.00	10-NOV-16	400.00	Reconciled
372451		03-NOV-16	ASSOCIATION OF CALIFORNIA CITIES		4,000.00	09-NOV-16	4,000.00	Reconciled
372452		03-NOV-16	AT&T		51.09	08-NOV-16	51.09	Reconciled
372453		03-NOV-16	AT&T		717.27	08-NOV-16	717.27	Reconciled
372454		03-NOV-16	AUSTIN HARDWOODS, INC		29.92	09-NOV-16	29.92	Reconciled
372455		03-NOV-16	AUTOZONE PARTS, INC.		31.44	07-NOV-16	31.44	Reconciled
372456		03-NOV-16	BELLAMY, JEFFREY		15.19	07-NOV-16	15.19	Reconciled
372457		03-NOV-16	BIGGS, MONICA		228.22	07-NOV-16	228.22	Reconciled
372458		03-NOV-16	BIGWIG MONSTER, LLC		3,000.00	14-NOV-16	3,000.00	Reconciled
372459		03-NOV-16	BILL'S SWEEPING SERVICE INC		1,360.00	09-NOV-16	1,360.00	Reconciled

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372460		03-NOV-16	BOWIE, ARNESON, WILES & GIANNONE		28,458.73	17-NOV-16	28,458.73	Reconciled
372461		03-NOV-16	BRENDAN MAYNES		165.00			Negotiable
372462		03-NOV-16	BURK, JONATHAN		341.90	14-NOV-16	341.90	Reconciled
372463		03-NOV-16	BUTT, FARAZ		14.13			Negotiable
372464		03-NOV-16	C WELLS PIPELINE MATERIALS INC		62,485.16	14-NOV-16	62,485.16	Reconciled
372465		03-NOV-16	CABELA'S MARKETING AND BRAND MANAGEMENT INC		42.94	07-NOV-16	42.94	Reconciled
372466		03-NOV-16	CALIFORNIA BARRICADE RENTAL, INC.		8,906.88	07-NOV-16	8,906.88	Reconciled
372467		03-NOV-16	CANON SOLUTIONS AMERICA, INC.		407.01	07-NOV-16	407.01	Reconciled
372468		03-NOV-16	CAPTIVE AUDIENCE MARKETING INC.		85.32	08-NOV-16	85.32	Reconciled
372469		03-NOV-16	CHEM TECH INTERNATIONAL INC		15,206.40	21-NOV-16	15,206.40	Reconciled
372470		03-NOV-16	CHEN, TING		93.57			Voided
372471		03-NOV-16	CITY OF ORANGE		125.04	08-NOV-16	125.04	Reconciled
372472		03-NOV-16	CIVILSOURCE, INC.		32,634.00	14-NOV-16	32,634.00	Reconciled
372473		03-NOV-16	COASTAL IGNITION & CONTROLS, INC		1,663.83	21-NOV-16	1,663.83	Reconciled
372474		03-NOV-16	COUNTY OF ORANGE		3,375.00	09-NOV-16	3,375.00	Reconciled

372475	03-NOV-16	COUNTY OF ORANGE	1,322.78	04-NOV-16	1,322.78	Reconciled
372476	03-NOV-16	COWELL, ANDREA	79.41	10-NOV-16	79.41	Reconciled
372477	03-NOV-16	COX COMMUNICATIONS, INC.	3,383.88	07-NOV-16	3,383.88	Reconciled
372478	03-NOV-16	CREDENTIAL CHECK CORPORATION	470.94	08-NOV-16	470.94	Reconciled
372479	03-NOV-16	CRESCENT CHEMICAL CO.	387.97	07-NOV-16	387.97	Reconciled
372480	03-NOV-16	DELAHANTY, MARY	172.81	07-NOV-16	172.81	Reconciled
372481	03-NOV-16	DELL MARKETING LP	46,709.12	09-NOV-16	46,709.12	Reconciled
372482	03-NOV-16	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY	61,526.75	14-NOV-16	61,526.75	Reconciled
372483	03-NOV-16	DL HUBER HOLDINGS LLC	91.52	07-NOV-16	91.52	Reconciled
372484	03-NOV-16	DMS FACILITY SERVICES, INC.	16,516.93	09-NOV-16	16,516.93	Reconciled
372485	03-NOV-16	E.J. MEYER COMPANY, INC.	1,250.00	08-NOV-16	1,250.00	Reconciled

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372486		03-NOV-16	E.J. MEYER COMPANY, INC.		23,750.00	09-NOV-16	23,750.00	Reconciled
372487		03-NOV-16	EHS INTERNATIONAL, INC		3,240.00	07-NOV-16	3,240.00	Reconciled
372488		03-NOV-16	ELITE EQUIPMENT, INC.		854.22	15-NOV-16	854.22	Reconciled
372489		03-NOV-16	EMERGENCY POWER CONTROLS INC		9,945.00	14-NOV-16	9,945.00	Reconciled
372490		03-NOV-16	ENVIRONMENTAL ENGINEERING AND CONTRACTING, INC.		11,850.00	09-NOV-16	11,850.00	Reconciled
372491		03-NOV-16	EXECUTIVE LIGHTING & ELECTRIC		1,264.58	08-NOV-16	1,264.58	Reconciled
372492		03-NOV-16	FERGUSON ENTERPRISES, INC.		243.00	07-NOV-16	243.00	Reconciled
372493		03-NOV-16	FIDELITY SECURITY LIFE INSURANCE COMPANY		6,496.41	08-NOV-16	6,496.41	Reconciled
372494		03-NOV-16	FISERV		280.95	04-NOV-16	280.95	Reconciled
372495		03-NOV-16	FISHER SCIENTIFIC COMPANY LLC		926.10	07-NOV-16	926.10	Reconciled
372496		03-NOV-16	FLW SERVICE CORPORATION		875.00	04-NOV-16	875.00	Reconciled
372497		03-NOV-16	FOPCO INC		9,200.00	09-NOV-16	9,200.00	Reconciled
372498		03-NOV-16	FOX, LYNETTE		51.25			Negotiable
372499		03-NOV-16	FRONTIER CALIFORNIA INC.		271.68	08-NOV-16	271.68	Reconciled
372500		03-NOV-16	FUSCOE ENGINEERING, INC.		11,166.50	09-NOV-16	11,166.50	Reconciled
372501		03-NOV-16	GE GRID SOLUTIONS, LLC		3,247.60	07-NOV-16	3,247.60	Reconciled
372502		03-NOV-16	GENTERRA CONSULTANTS INC		5,670.00	04-NOV-16	5,670.00	Reconciled
372503		03-NOV-16	GRAINGER		2,498.20	07-NOV-16	2,498.20	Reconciled
372504		03-NOV-16	GRAYBAR ELECTRIC COMPANY		1,698.87	07-NOV-16	1,698.87	Reconciled
372505		03-NOV-16	GREAT PACIFIC EQUIPMENT INC		2,740.00	08-NOV-16	2,740.00	Reconciled
372506		03-NOV-16	GREGG OHLHAVER		2,861.46	04-NOV-16	2,861.46	Reconciled
372507		03-NOV-16	HAAKER EQUIPMENT COMPANY		944.10	08-NOV-16	944.10	Reconciled
372508		03-NOV-16	HACH COMPANY		38,378.61	14-NOV-16	38,378.61	Reconciled
372509		03-NOV-16	HARDIN, MARGARET		252.60	04-NOV-16	252.60	Reconciled
372510		03-NOV-16	HD SUPPLY WATERWORKS LTD		232.21	07-NOV-16	232.21	Reconciled

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372511		03-NOV-16	HEALTH SCIENCE ASSOCIATES, INC.		1,309.50	23-NOV-16	1,309.50	Reconciled
372512		03-NOV-16	HELPMATES STAFFING SERVICES		7,513.52	04-NOV-16	7,513.52	Reconciled
372513		03-NOV-16	HERITAGE FIELDS EL TORO, LLC		1,140,554.73	15-NOV-16	1,140,554.73	Reconciled
372514		03-NOV-16	HOME DEPOT USA INC		147.46	14-NOV-16	147.46	Reconciled
372515		03-NOV-16	HOME DEPOT USA INC		12.79	14-NOV-16	12.79	Reconciled

372516	03-NOV-16	HORIZON TECHNOLOGY INC	814.96	08-NOV-16	814.96	Reconciled
372517	03-NOV-16	IBM CORPORATION	5,254.00	07-NOV-16	5,254.00	Reconciled
372518	03-NOV-16	IMAGEMASTER LLC	5,381.52	14-NOV-16	5,381.52	Reconciled
372519	03-NOV-16	INDUSTRIAL NETWORKING SOLUTIONS	1,299.60	07-NOV-16	1,299.60	Reconciled
372520	03-NOV-16	INTERNATIONAL PUBLIC MANAGEMENT ASSOCIATION-HR	789.00	09-NOV-16	789.00	Reconciled
372521	03-NOV-16	IRVINE PIPE & SUPPLY INC	13,903.48	09-NOV-16	13,903.48	Reconciled
372522	03-NOV-16	IRWD	100.00			Voided
372523	03-NOV-16	IRWD-PETTY CASH CUSTODIAN	1,187.57	09-NOV-16	1,187.57	Reconciled
372524	03-NOV-16	JACOBS PROJECT MANAGEMENT CO.	24,320.00	10-NOV-16	24,320.00	Reconciled
372525	03-NOV-16	JOHN MICHAEL COVAS	391.60	14-NOV-16	391.60	Reconciled
372526	03-NOV-16	JOHNSON-PELTIER	7,934.00	08-NOV-16	7,934.00	Reconciled
372527	03-NOV-16	KATARIA, ANUPAM	109.53	14-NOV-16	109.53	Reconciled
372528	03-NOV-16	KENT & AMY DAHLBERG	11,567.85	14-NOV-16	11,567.85	Reconciled
372529	03-NOV-16	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES	1,175.00	07-NOV-16	1,175.00	Reconciled
372530	03-NOV-16	KIMBALL MIDWEST	1,471.54	09-NOV-16	1,471.54	Reconciled
372531	03-NOV-16	KOELLER NEBEKER CARLSON & HALUCK, LLP	360.00	07-NOV-16	360.00	Reconciled
372532	03-NOV-16	LA HABRA FENCE COMPANY INC	550.00	07-NOV-16	550.00	Reconciled
372533	03-NOV-16	LANDCARE HOLDINGS, INC.	1,552.00	07-NOV-16	1,552.00	Reconciled
372534	03-NOV-16	LAYTON, STEPHEN	175.95	07-NOV-16	175.95	Reconciled
372535	03-NOV-16	LEONG, SCOTT	28.36			Negotiable
372536	03-NOV-16	LEWIS BRISBOIS BISGAARD AND SMITH, LLP	7,460.00	14-NOV-16	7,460.00	Reconciled

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372537	03-NOV-16	MARINA LANDSCAPE MAINTENANCE, INC.	1,038.01	07-NOV-16	1,038.01	Reconciled		
372538	03-NOV-16	MC FADDEN-DALE INDUSTRIAL	386.72	08-NOV-16	386.72	Reconciled		
372539	03-NOV-16	MC MASTER CARR SUPPLY CO	1,162.12	07-NOV-16	1,162.12	Reconciled		
372540	03-NOV-16	MICHAEL BAKER INTERNATIONAL, INC.	3,244.91	07-NOV-16	3,244.91	Reconciled		
372541	03-NOV-16	MK BUSINESS CENTER III	1,407.69	09-NOV-16	1,407.69	Reconciled		
372542	03-NOV-16	MORGAN COMPANY	436.53	09-NOV-16	436.53	Reconciled		
372543	03-NOV-16	MR CRANE INC	4,014.75	07-NOV-16	4,014.75	Reconciled		
372544	03-NOV-16	MUNGAI, BILL	124.20	09-NOV-16	124.20	Reconciled		
372545	03-NOV-16	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY	20,655.00	09-NOV-16	20,655.00	Reconciled		
372546	03-NOV-16	NATIONAL READY MIXED CONCRETE CO.	590.60	07-NOV-16	590.60	Reconciled		
372547	03-NOV-16	NATURALWELL, LLC	1,457.50	04-NOV-16	1,457.50	Reconciled		
372548	03-NOV-16	NATURES IMAGE INC	198.00	04-NOV-16	198.00	Reconciled		
372549	03-NOV-16	NEWPORT RIDGE APTS	10.07	18-NOV-16	10.07	Reconciled		
372550	03-NOV-16	NORMAN A. OLSSON CONSTRUCTION, INC.	106,761.00	18-NOV-16	106,761.00	Reconciled		
372551	03-NOV-16	O'HAREN GOVERNMENT RELATIONS	6,765.97	09-NOV-16	6,765.97	Reconciled		
372552	03-NOV-16	OLIN CORPORATION	2,987.05	07-NOV-16	2,987.05	Reconciled		
372553	03-NOV-16	ONESOURCE	214.01	07-NOV-16	214.01	Reconciled		
372554	03-NOV-16	DISTRIBUTORS LLC ORANGE COUNTY AUTO PARTS CO	106.32	07-NOV-16	106.32	Reconciled		
372555	03-NOV-16	ORANGE COUNTY HOSE	3,464.21	04-NOV-16	3,464.21	Reconciled		
372556	03-NOV-16	PACIFIC COAST BOLT CORP	4,711.52	08-NOV-16	4,711.52	Reconciled		
372557	03-NOV-16	PACIFIC PARTS & CONTROLS INC	9,991.52	08-NOV-16	9,991.52	Reconciled		
372558	03-NOV-16	PAULUS ENGINEERING INC	19,121.60	09-NOV-16	19,121.60	Reconciled		
372559	03-NOV-16	PHILLIPS, PAMELA	23.12	04-NOV-16	23.12	Reconciled		
372560	03-NOV-16	PINNACLE CUSTOM HOMES, INC.	619.23	07-NOV-16	619.23	Reconciled		
372561	03-NOV-16	POWER CONNECTIONS CAREER SERVICES	3,410.00	08-NOV-16	3,410.00	Reconciled		
372562	03-NOV-16	PRAXAIR DISTRIBUTION INC	599.59	08-NOV-16	599.59	Reconciled		

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50

BANK: Bank of America N.A. Branch : Los Angeles  
 Bank Account Currency: USD ( US Dollar )  
 Payment Type: All

Account: Checking AP and PR Page: 6  
 Payment Currency: USD ( US Dollar )  
 Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372563		03-NOV-16	PROFESSIONAL ELECTRICAL CONSTRUCTION SERVICES, INC		1,891.21	08-NOV-16	1,891.21	Reconciled
372564		03-NOV-16	PUBLIC FINANCIAL MANAGEMENT, INC.		22,284.54	10-NOV-16	22,284.54	Reconciled
372565		03-NOV-16	QUACH, HUY		351.07	07-NOV-16	351.07	Reconciled
372566		03-NOV-16	R&B AUTOMATION, INC.		9,674.40	09-NOV-16	9,674.40	Reconciled
372567		03-NOV-16	RAM AIR ENGINEERING INC		650.00	08-NOV-16	650.00	Reconciled
372568		03-NOV-16	RANCHO ALISAL APTS		4.45	14-NOV-16	4.45	Reconciled
372569		03-NOV-16	RED HAWK FIRE & SECURITY (CA) LLC		1,175.00	07-NOV-16	1,175.00	Reconciled
372570		03-NOV-16	REED, JAMES D		1,930.00	14-NOV-16	1,930.00	Reconciled
372571		03-NOV-16	RICHARD C. SLADE & ASSOCIATES LLC		15,087.00	21-NOV-16	15,087.00	Reconciled
372572		03-NOV-16	RINCON TRUCK CENTER INC.		1,999.21	04-NOV-16	1,999.21	Reconciled
372573		03-NOV-16	RM DALTON CORPORATION		963.30	17-NOV-16	963.30	Reconciled
372574		03-NOV-16	ROBERT HALF INTERNATIONAL, INC.		4,102.47	07-NOV-16	4,102.47	Reconciled
372575		03-NOV-16	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		148,301.64	10-NOV-16	148,301.64	Reconciled
372576		03-NOV-16	S & J SUPPLY CO INC		4,357.53	07-NOV-16	4,357.53	Reconciled
372577		03-NOV-16	S&S SEEDS INC		9,690.40	07-NOV-16	9,690.40	Reconciled
372578		03-NOV-16	SANDOVAL, HUGO		423.84	09-NOV-16	423.84	Reconciled
372579		03-NOV-16	SANTA ANA BLUE PRINT		379.63	08-NOV-16	379.63	Reconciled
372580		03-NOV-16	SANTA MARGARITA FORD		40.99	07-NOV-16	40.99	Reconciled
372581		03-NOV-16	SANTA ROSA APARTMENTS		1.77	18-NOV-16	1.77	Reconciled
372582		03-NOV-16	SCHULER CONSTRUCTORS, INC.		282,272.64	09-NOV-16	282,272.64	Reconciled
372583		03-NOV-16	SCHULER CONSTRUCTORS, INC.		14,856.45	15-NOV-16	14,856.45	Reconciled
372584		03-NOV-16	SCIENTIFIC REFRIGERATION		844.77	14-NOV-16	844.77	Reconciled
372585		03-NOV-16	SECURTEC DISTRICT PATROL, INC.		10,940.00	15-NOV-16	10,940.00	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372586		03-NOV-16	SHAMROCK SUPPLY CO INC		2,161.19	08-NOV-16	2,161.19	Reconciled
372587		03-NOV-16	SLEVIN, GEORGINA		1,128.47	15-NOV-16	1,128.47	Reconciled
372588		03-NOV-16	SOUTHERN CALIFORNIA EDISON COMPANY		572,221.53	04-NOV-16	572,221.53	Reconciled
372589		03-NOV-16	SPX CORP		1,345.96	07-NOV-16	1,345.96	Reconciled
372590		03-NOV-16	STANTEC CONSULTING SERVICES INC.		9,375.00	07-NOV-16	9,375.00	Reconciled
372591		03-NOV-16	TAYLOR MORRISON		112.42	30-NOV-16	112.42	Reconciled
372592		03-NOV-16	TEJEDA, RAFAEL		20.66	16-NOV-16	20.66	Reconciled
372593		03-NOV-16	TELEDYNE INSTRUMENTS, INC.		636.78	10-NOV-16	636.78	Reconciled
372594		03-NOV-16	THE FURMAN GROUP, INC.		12,550.00	10-NOV-16	12,550.00	Reconciled
372595		03-NOV-16	THYSSENKRUPP ELEVATOR CORPORATION		179.64	07-NOV-16	179.64	Reconciled
372596		03-NOV-16	TIC-IPG-COMMON		146.15	14-NOV-16	146.15	Reconciled
372597		03-NOV-16	TIC-OFFICE PROPERTIES		3,544.71	14-NOV-16	3,544.71	Reconciled
372598		03-NOV-16	TIC-RETAIL PROPERTIES		8,231.71	14-NOV-16	8,231.71	Reconciled
372599		03-NOV-16	TOLL BROTHERS., INC.		2,241.93	22-NOV-16	2,241.93	Reconciled
372600		03-NOV-16	TROPICAL PLAZA NURSERY INC		4,449.80	07-NOV-16	4,449.80	Reconciled
372601		03-NOV-16	TRUCPARCO		1,052.04	09-NOV-16	1,052.04	Reconciled
372602		03-NOV-16	TSCM CORP		648.51	07-NOV-16	648.51	Reconciled

372603	03-NOV-16	U. P. LANDSCAPE MAINTENANCE		1,377.19				Negotiable
372604	03-NOV-16	UNITED PARCEL SERVICE INC		192.29	08-NOV-16		192.29	Reconciled
372605	03-NOV-16	UNITED SITE SERVICES OF CALIFORNIA INC		478.25	09-NOV-16		478.25	Reconciled
372606	03-NOV-16	UNITED STATES POST OFFICE		25,000.00				Negotiable
372607	03-NOV-16	VANDER WALL, JACQUELYN		27.45	10-NOV-16		27.45	Reconciled
372608	03-NOV-16	VERIZON WIRELESS SERVICES LLC		11,377.58	14-NOV-16		11,377.58	Reconciled
372609	03-NOV-16	VRIDE INC		12,120.00	07-NOV-16		12,120.00	Reconciled
372610	03-NOV-16	VWR INTERNATIONAL, LLC		1,212.38	07-NOV-16		1,212.38	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8  
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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372611	03-NOV-16	03-NOV-16	WASTE MANAGEMENT OF ORANGE COUNTY		2,034.84	07-NOV-16	2,034.84	Reconciled
372612	03-NOV-16	03-NOV-16	WAXIE'S ENTERPRISES, INC		1,187.85	07-NOV-16	1,187.85	Reconciled
372613	03-NOV-16	03-NOV-16	WECK LABORATORIES INC		4,410.00	07-NOV-16	4,410.00	Reconciled
372614	03-NOV-16	03-NOV-16	WEST COAST SAND & GRAVEL INC.		1,143.67	07-NOV-16	1,143.67	Reconciled
372615	03-NOV-16	03-NOV-16	WESTAMERICA COMMUNICATIONS, INC.		3,841.82	04-NOV-16	3,841.82	Reconciled
372616	03-NOV-16	03-NOV-16	WESTERN SAFETY PRODUCTS INC		1,159.92	08-NOV-16	1,159.92	Reconciled
372617	03-NOV-16	03-NOV-16	WIRELESS WATCHDOGS, LLC		556.00	10-NOV-16	556.00	Reconciled
372618	03-NOV-16	03-NOV-16	YSI, INC		1,599.72	08-NOV-16	1,599.72	Reconciled
372619	03-NOV-16	03-NOV-16	ZHANG, HANXIAO		23.19			Negotiable
372620	03-NOV-16	03-NOV-16	ZHANG, ZENG		362.58	07-NOV-16	362.58	Reconciled
372621	03-NOV-16	03-NOV-16	ZHAO, YANG		1,069.48	10-NOV-16	1,069.48	Reconciled
372622	03-NOV-16	03-NOV-16	ZHU, YONGYIN		50.00			Negotiable
372623	07-NOV-16	07-NOV-16	CHANG, JULIE	IRVINE	367.44	08-NOV-16	367.44	Reconciled
372624	07-NOV-16	07-NOV-16	JCI JONES CHEMICALS INC	CINCINNATI	5,145.00	10-NOV-16	5,145.00	Reconciled
372625	07-NOV-16	07-NOV-16	PRICE, MAUREEN	PAY	230.07	10-NOV-16	230.07	Reconciled
372626	10-NOV-16	10-NOV-16	Compton, Christine A		160.37			Negotiable
372627	10-NOV-16	10-NOV-16	Akiyoshi, Eric S (Eric)		158.13	10-NOV-16	158.13	Reconciled
372628	10-NOV-16	10-NOV-16	Bertsch, Frederick J (Jeff)		126.39	14-NOV-16	126.39	Reconciled
372629	10-NOV-16	10-NOV-16	Vazquez, Rafael		410.00	14-NOV-16	410.00	Reconciled
372630	10-NOV-16	10-NOV-16	Malloy, Steven L (Steven)		115.00	10-NOV-16	115.00	Reconciled
372631	10-NOV-16	10-NOV-16	AAF INTERNATIONAL		1,342.17	14-NOV-16	1,342.17	Reconciled
372632	10-NOV-16	10-NOV-16	ADS LLC		1,936.50	14-NOV-16	1,936.50	Reconciled
372633	10-NOV-16	10-NOV-16	AERATION INDUSTRIES INTERNATIONAL INC		24,190.85	14-NOV-16	24,190.85	Reconciled
372634	10-NOV-16	10-NOV-16	AFARINESH, AGGIE		49.19			Negotiable
372635	10-NOV-16	10-NOV-16	AIR TECHNOLOGY LABORATORIES		289.00	16-NOV-16	289.00	Reconciled
372636	10-NOV-16	10-NOV-16	ALEXANDER'S CONTRACT SERVICES, INC.		112,278.77	16-NOV-16	112,278.77	Reconciled
372637	10-NOV-16	10-NOV-16	ALL AMERICAN SEWER TOOLS		179.16	14-NOV-16	179.16	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 9  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372638	10-NOV-16	10-NOV-16	APCO GRAPHICS INC		108.00	14-NOV-16	108.00	Reconciled
372639	10-NOV-16	10-NOV-16	APPLIED TECHNOLOGY GROUP INC		1,705.44	14-NOV-16	1,705.44	Reconciled
372640	10-NOV-16	10-NOV-16	AQUA-METRIC SALES COMPANY		4,383.82	14-NOV-16	4,383.82	Reconciled
372641	10-NOV-16	10-NOV-16	ARCADIS U.S., INC.		91,605.99	17-NOV-16	91,605.99	Reconciled
372642	10-NOV-16	10-NOV-16	ASHFORD, WALT		612.34	16-NOV-16	612.34	Reconciled
372643	10-NOV-16	10-NOV-16	AT&T		1,679.12	15-NOV-16	1,679.12	Reconciled
372644	10-NOV-16	10-NOV-16	AT&T		4,063.94	15-NOV-16	4,063.94	Reconciled
372645	10-NOV-16	10-NOV-16	AUTOZONE PARTS, INC.		388.54	15-NOV-16	388.54	Reconciled

372646	10-NOV-16	BANK OF NEW YORK MELLON TRUST COMPANY NA	1,268.00	16-NOV-16	1,268.00	Reconciled
372647	10-NOV-16	BATTERIES PLUS AND BATTERIES PLUS BULBS	914.22	14-NOV-16	914.22	Reconciled
372648	10-NOV-16	BENCH-CRAFT, INC.	8,839.24	16-NOV-16	8,839.24	Reconciled
372649	10-NOV-16	BEST DRILLING AND PUMP, INC.	61,997.00	16-NOV-16	61,997.00	Reconciled
372650	10-NOV-16	BIGWIG MONSTER, LLC	1,200.00	14-NOV-16	1,200.00	Reconciled
372651	10-NOV-16	BILL'S SWEEPING SERVICE INC	520.00	16-NOV-16	520.00	Reconciled
372652	10-NOV-16	BIOMAGIC INC	12,182.41	30-NOV-16	12,182.41	Reconciled
372653	10-NOV-16	BLACK & VEATCH CORPORATION	359,697.79	17-NOV-16	359,697.79	Reconciled
372654	10-NOV-16	BLASKA, ERIKA M	166.51	17-NOV-16	166.51	Reconciled
372655	10-NOV-16	BOMEL CONSTRUCTION COMPANY INC.	605.66	16-NOV-16	605.66	Reconciled
372656	10-NOV-16	BORCHARD SURVEYING & MAPPING, INC.	2,290.50	14-NOV-16	2,290.50	Reconciled
372657	10-NOV-16	BRANDON M. ARANT	6,290.00	14-NOV-16	6,290.00	Reconciled
372658	10-NOV-16	BRENNTAG PACIFIC INC	24,684.49	16-NOV-16	24,684.49	Reconciled
372659	10-NOV-16	CALIFORNIA BARRICADE RENTAL, INC.	11,074.87	15-NOV-16	11,074.87	Reconciled
372660	10-NOV-16	CALIFORNIA DEPT OF PUBLIC HEALTH	473.00	17-NOV-16	473.00	Reconciled
372661	10-NOV-16	CANON FINANCIAL SERVICES, INC	1,315.44	14-NOV-16	1,315.44	Reconciled
372662	10-NOV-16	CANON SOLUTIONS AMERICA, INC.	710.70	14-NOV-16	710.70	Reconciled
372663	10-NOV-16	CAROLLO ENGINEERS, INC	26,059.25	22-NOV-16	26,059.25	Reconciled

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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372664		10-NOV-16	CHEM TECH INTERNATIONAL INC		20,220.80	23-NOV-16	20,220.80	Reconciled
372665		10-NOV-16	CITY OF IRVINE		879.00	15-NOV-16	879.00	Reconciled
372666		10-NOV-16	CITY OF LAKE FOREST		312.47			Negotiable
372667		10-NOV-16	CLEAN ENERGY		2,557.09	15-NOV-16	2,557.09	Reconciled
372668		10-NOV-16	COUNTY OF RIVERSIDE		114,782.90	18-NOV-16	114,782.90	Reconciled
372669		10-NOV-16	CR & R INCORPORATED		287.73	15-NOV-16	287.73	Reconciled
372670		10-NOV-16	DANGELO CO		211.31	14-NOV-16	211.31	Reconciled
372671		10-NOV-16	DAYTON CERTIFIED WELDING, INC.		7,050.00	15-NOV-16	7,050.00	Reconciled
372672		10-NOV-16	DEE JASPAR & ASSOCIATES, INC.		220.50	15-NOV-16	220.50	Reconciled
372673		10-NOV-16	DELL MARKETING LP		11,423.44	16-NOV-16	11,423.44	Reconciled
372674		10-NOV-16	DEX MEDIA INC.		77.25	16-NOV-16	77.25	Reconciled
372675		10-NOV-16	DISCOUNT COURIER SERVICE		89.73	14-NOV-16	89.73	Reconciled
372676		10-NOV-16	DRISCOLL, JACK		17.97	22-NOV-16	17.97	Reconciled
372677		10-NOV-16	EAST ORANGE COUNTY WATER DISTRICT		26,305.05	16-NOV-16	26,305.05	Reconciled
372678		10-NOV-16	ECOLOGY CONTROL INDUSTRIES		2,133.75	14-NOV-16	2,133.75	Reconciled
372679		10-NOV-16	EI&C ENGINEERING INC		50,842.00	17-NOV-16	50,842.00	Reconciled
372680		10-NOV-16	ENVIRONMENTAL RESOURCE ASSOCIATES		126.24	17-NOV-16	126.24	Reconciled
372681		10-NOV-16	EXECUTIVE LIGHTING & ELECTRIC		1,508.45	15-NOV-16	1,508.45	Reconciled
372682		10-NOV-16	FERGUSON ENTERPRISES, INC.		2,523.53	14-NOV-16	2,523.53	Reconciled
372683		10-NOV-16	FIERRO, SERGIO D		3,324.99	14-NOV-16	3,324.99	Reconciled
372684		10-NOV-16	FIRST CHOICE SERVICES		220.60	16-NOV-16	220.60	Reconciled
372685		10-NOV-16	FISHER SCIENTIFIC COMPANY LLC		7,016.99	14-NOV-16	7,016.99	Reconciled
372686		10-NOV-16	FLW, INC.		3,979.82	15-NOV-16	3,979.82	Reconciled
372687		10-NOV-16	FORESTRY SUPPLIERS INC		67.81	14-NOV-16	67.81	Reconciled
372688		10-NOV-16	FRONTIER CALIFORNIA INC.		51.15	15-NOV-16	51.15	Reconciled
372689		10-NOV-16	GAMARRA, KEVIN		47.43		36.14	Negotiable
372690		10-NOV-16	GANAHL LUMBER CO.		36.14	17-NOV-16	36.14	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11  
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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372691		10-NOV-16	GE GRID SOLUTIONS, LLC		6,214.66	14-NOV-16	6,214.66	Reconciled
372692		10-NOV-16	GHD INC.		7,255.50	16-NOV-16	7,255.50	Reconciled
372693		10-NOV-16	GOLDMAN, SACHS & CO		16,338.80	14-NOV-16	16,338.80	Reconciled
372694		10-NOV-16	GRAINGER		1,046.80	14-NOV-16	1,046.80	Reconciled
372695		10-NOV-16	GRAYBAR ELECTRIC COMPANY		6,236.11	14-NOV-16	6,236.11	Reconciled
372696		10-NOV-16	GREAT PACIFIC EQUIPMENT INC		1,040.00	14-NOV-16	1,040.00	Reconciled
372697		10-NOV-16	HAAKER EQUIPMENT COMPANY		1,057,154.76	17-NOV-16	1,057,154.76	Reconciled
372698		10-NOV-16	HACH COMPANY		3,160.75	14-NOV-16	3,160.75	Reconciled
372699		10-NOV-16	HACKETT PRINTING		475.20	14-NOV-16	475.20	Reconciled
372700		10-NOV-16	HARRINGTON INDUSTRIAL PLASTICS LLC		925.69	14-NOV-16	925.69	Reconciled
372701		10-NOV-16	HELENA CHEMICAL COMPANY		5,862.67	14-NOV-16	5,862.67	Reconciled
372702		10-NOV-16	HELP/SYSTEMS, LLC		5,600.00	14-NOV-16	5,600.00	Reconciled
372703		10-NOV-16	HELPMATES STAFFING SERVICES		7,207.22	14-NOV-16	7,207.22	Reconciled
372704		10-NOV-16	HILL BROTHERS CHEMICAL COMPANY		5,828.50	16-NOV-16	5,828.50	Reconciled
372705		10-NOV-16	HOME DEPOT USA INC		333.30	17-NOV-16	333.30	Reconciled
372706		10-NOV-16	HULE, KATHERINE		30.10			Negotiable
372707		10-NOV-16	INDUSTRIAL METAL SUPPLY CO		59.53	14-NOV-16	59.53	Reconciled
372708		10-NOV-16	INGERSOLL RAND CO		799.82	14-NOV-16	799.82	Reconciled
372709		10-NOV-16	IRVINE PIPE & SUPPLY INC		13,297.20	16-NOV-16	13,297.20	Reconciled
372710		10-NOV-16	JACOBS PROJECT MANAGEMENT CO.		7,600.00	14-NOV-16	7,600.00	Reconciled
372711		10-NOV-16	JCI JONES CHEMICALS INC		5,505.50	14-NOV-16	5,505.50	Reconciled
372712		10-NOV-16	JIG CONSULTANTS		1,875.42	16-NOV-16	1,875.42	Reconciled
372713		10-NOV-16	KINGS COUNTY TAX COLLECTOR		21,299.68	17-NOV-16	21,299.68	Reconciled
372714		10-NOV-16	KLEINFELDER, INC.		30,540.00	17-NOV-16	30,540.00	Reconciled
372715		10-NOV-16	KOFLEX SPORTS CORP.		18.12	17-NOV-16	18.12	Reconciled
372716		10-NOV-16	KONECRANES INC		4,332.00	14-NOV-16	4,332.00	Reconciled
372717		10-NOV-16	LA HABRA FENCE COMPANY INC		844.00	16-NOV-16	844.00	Reconciled
372718		10-NOV-16	LAKE FOREST COMM ASSN		10,741.41			Negotiable

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372719		10-NOV-16	LCS TECHNOLOGIES, INC.		5,940.00	15-NOV-16	5,940.00	Reconciled
372720		10-NOV-16	LEE & RO, INC.		60,813.54	17-NOV-16	60,813.54	Reconciled
372721		10-NOV-16	LHNAV, LLC		3,179.69			Negotiable
372722		10-NOV-16	MARINA LANDSCAPE MAINTENANCE, INC.		6,152.82	14-NOV-16	6,152.82	Reconciled
372723		10-NOV-16	MC FADDEN-DALE INDUSTRIAL		20.68	15-NOV-16	20.68	Reconciled
372724		10-NOV-16	MC MASTER CARR SUPPLY CO		2,216.38	14-NOV-16	2,216.38	Reconciled
372725		10-NOV-16	MCR TECHNOLOGIES INC		3,711.37	14-NOV-16	3,711.37	Reconciled
372726		10-NOV-16	MICHAEL BAKER INTERNATIONAL, INC.		492.00	14-NOV-16	492.00	Reconciled
372727		10-NOV-16	MISSION COMMUNICATIONS LLC		4,731.00	15-NOV-16	4,731.00	Reconciled
372728		10-NOV-16	MOBILE MODULAR MANAGEMENT CORPORATION		1,020.60	16-NOV-16	1,020.60	Reconciled
372729		10-NOV-16	MRO ELECTRIC & SUPPLY CO.		8,854.00	15-NOV-16	8,854.00	Reconciled
372730		10-NOV-16	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		24,942.19	16-NOV-16	24,942.19	Reconciled
372731		10-NOV-16	MUTUAL PROPANE		18.99	15-NOV-16	18.99	Reconciled
372732		10-NOV-16	NATIONAL READY MIXED CONCRETE CO.		3,018.60	14-NOV-16	3,018.60	Reconciled
372733		10-NOV-16	NINYO & MOORE		2,189.00	14-NOV-16	2,189.00	Reconciled
372734		10-NOV-16	OCEAN BLUE ENVIRONMENTAL		4,238.57	22-NOV-16	4,238.57	Reconciled

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
372735	10-NOV-16		SERVICES INC		14,729.27	18-NOV-16	14,729.27	Reconciled
372736	10-NOV-16		OLIN CORPORATION ON ASSIGNMENT LAB SUPPORT		2,380.00	14-NOV-16	2,380.00	Reconciled
372737	10-NOV-16		ORANGE COUNTY AUTO PARTS CO		6.97	14-NOV-16	6.97	Reconciled
372738	10-NOV-16		OUTSOURCE		72,424.00	16-NOV-16	72,424.00	Reconciled
372739	10-NOV-16		TECHNICAL LLC PACIFIC PARTS & CONTROLS INC		2,750.63	15-NOV-16	2,750.63	Reconciled
372740	10-NOV-16		PACIFIC RESOURCE RECOVERY		1,692.05	15-NOV-16	1,692.05	Reconciled
372741	10-NOV-16		PALO VERDE IRRIGATION DISTRICT		5,726.44	15-NOV-16	5,726.44	Reconciled

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles  
 Bank Account Currency: USD ( US Dollar )  
 Payment Type: All

Payment Register For 01-NOV-16 To 30-NOV-16  
 Account: Checking AP and PR  
 Payment Currency: USD ( US Dollar )  
 Display Supplier Address: No

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372742	10-NOV-16		PAPER DEPOT DOCUMENT DESTRUCTION LLC		720.00	18-NOV-16	720.00	Reconciled
372743	10-NOV-16		PRAXAIR		919.34	16-NOV-16	919.34	Reconciled
372744	10-NOV-16		DISTRIBUTION INC PRO MOBILE AUTO DETAILING		300.00	14-NOV-16	300.00	Reconciled
372745	10-NOV-16		PRUDENTIAL OVERALL SUPPLY		4,840.48	15-NOV-16	4,840.48	Reconciled
372746	10-NOV-16		PURE EFFECT INC		5,955.00	15-NOV-16	5,955.00	Reconciled
372747	10-NOV-16		PYRO-COMM SYSTEMS INC		1,278.00	16-NOV-16	1,278.00	Reconciled
372748	10-NOV-16		QUINN COMPANY		1,710.49	14-NOV-16	1,710.49	Reconciled
372749	10-NOV-16		RAM AIR ENGINEERING INC		4,359.52	15-NOV-16	4,359.52	Reconciled
372750	10-NOV-16		RINCON TRUCK CENTER INC.		126.28	14-NOV-16	126.28	Reconciled
372751	10-NOV-16		RINGCLEAR LLC		85.68	15-NOV-16	85.68	Reconciled
372752	10-NOV-16		SAFETY-KLEEN SYSTEMS, INC		246.50	16-NOV-16	246.50	Reconciled
372753	10-NOV-16		SANTA ANA BLUE PRINT		119.77	16-NOV-16	119.77	Reconciled
372754	10-NOV-16		SANTA MARGARITA FORD		78.58	14-NOV-16	78.58	Reconciled
372755	10-NOV-16		SEALS WEST PACKING CO.		5,062.86	14-NOV-16	5,062.86	Reconciled
372756	10-NOV-16		SHAMROCK SUPPLY CO INC		476.68	14-NOV-16	476.68	Reconciled
372757	10-NOV-16		SIMI VALLEY LANDFILL AND RECYCLING CENTER		682.38	14-NOV-16	682.38	Reconciled
372758	10-NOV-16		SOUTH COAST ANSWERING SERVICE		549.75	14-NOV-16	549.75	Reconciled
372759	10-NOV-16		SOUTH ORANGE COUNTY WASTEWATER AUTHORITY		75,559.00	17-NOV-16	75,559.00	Reconciled
372760	10-NOV-16		SOUTHERN CALIFORNIA EDISON COMPANY		55,466.79	14-NOV-16	55,466.79	Reconciled
372761	10-NOV-16		SOUTHLAND WATER TECHNOLOGIES LLC		474.00	15-NOV-16	474.00	Reconciled
372762	10-NOV-16		STANDARD REGISTER, INC.		2,472.43	14-NOV-16	2,472.43	Reconciled
372763	10-NOV-16		STETSON ENGINEERS INC.		6,845.00	18-NOV-16	6,845.00	Reconciled
372764	10-NOV-16		SUSAN A. SIROTA		4,295.00	14-NOV-16	4,295.00	Reconciled

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles  
 Bank Account Currency: USD ( US Dollar )  
 Payment Type: All

Payment Register For 01-NOV-16 To 30-NOV-16  
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 Payment Currency: USD ( US Dollar )  
 Display Supplier Address: No

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372765	10-NOV-16		TESTAMERICA LABORATORIES, INC		192.15	15-NOV-16	192.15	Reconciled
372766	10-NOV-16		TETRA TECH, INC		12,420.00	17-NOV-16	12,420.00	Reconciled
372767	10-NOV-16		THE GAS COMPANY		5,158.15	16-NOV-16	5,158.15	Reconciled
372768	10-NOV-16		THOMAS HARDER & CO		23,430.00	18-NOV-16	23,430.00	Reconciled
372769	10-NOV-16		TOTAL TELCO SPECIALISTS INC		2,220.00	17-NOV-16	2,220.00	Reconciled
372770	10-NOV-16		TRI POINTE HOMES, INC.		1,557.05	21-NOV-16	1,557.05	Reconciled
372771	10-NOV-16		TROPICAL PLAZA NURSERY INC		10,181.70	16-NOV-16	10,181.70	Reconciled
372772	10-NOV-16		TRUCPARCO		1,128.52	17-NOV-16	1,128.52	Reconciled

372773	10-NOV-16	ULTRA SCIENTIFIC	114.35	16-NOV-16	114.35	Reconciled
372774	10-NOV-16	USDA FOREST SERVICE	269.33	14-NOV-16	269.33	Reconciled
372775	10-NOV-16	VISION TECHNOLOGY SOLUTIONS, LLC	205.00	14-NOV-16	205.00	Reconciled
372776	10-NOV-16	VULCAN MATERIALS COMPANY	2,785.85	14-NOV-16	2,785.85	Reconciled
372777	10-NOV-16	W.M. LYLES CO	850,514.24	16-NOV-16	850,514.24	Reconciled
372778	10-NOV-16	W.M. LYLES CO	44,763.90	16-NOV-16	44,763.90	Reconciled
372779	10-NOV-16	WALTERS WHOLESALE ELECTRIC	1,795.86	17-NOV-16	1,795.86	Reconciled
372780	10-NOV-16	WASTE MANAGEMENT OF ORANGE COUNTY	2,117.78	14-NOV-16	2,117.78	Reconciled
372781	10-NOV-16	WATERSMART SOFTWARE, INC	17,975.00	17-NOV-16	17,975.00	Reconciled
372782	10-NOV-16	WATERWISE CONSULTING, INC.	6,656.00	14-NOV-16	6,656.00	Reconciled
372783	10-NOV-16	WAXIE'S ENTERPRISES, INC	255.36	14-NOV-16	255.36	Reconciled
372784	10-NOV-16	WECK LABORATORIES INC	4,100.00	15-NOV-16	4,100.00	Reconciled
372785	10-NOV-16	WEST COAST SAND & GRAVEL INC.	851.30	14-NOV-16	851.30	Reconciled
372786	10-NOV-16	WESTAMERICA COMMUNICATIONS, INC.	2,857.00	15-NOV-16	2,857.00	Reconciled
372787	10-NOV-16	WESTERN AV	5,250.96	14-NOV-16	5,250.96	Reconciled
372788	10-NOV-16	WESTERN SAFETY PRODUCTS INC	2,325.37	14-NOV-16	2,325.37	Reconciled
372789	10-NOV-16	WIN-911 SOFTWARE	2,270.00	18-NOV-16	2,270.00	Reconciled
372790	10-NOV-16	WISCONSIN STATE LABORATORY OF HYGENE	600.00	14-NOV-16	600.00	Reconciled
372791	10-NOV-16	YP LLC	123.50	14-NOV-16	123.50	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372792		10-NOV-16	ZEBRON CONTRACTING INC		20,945.00	21-NOV-16	20,945.00	Reconciled
372793		11-NOV-16	CLEARINGHOUSE	PHOENIX	477.67	18-NOV-16	477.67	Reconciled
372794		11-NOV-16	ORANGE COUNTY SHERIFF'S OFFICE	4601	62.50	30-NOV-16	62.50	Reconciled
372795		11-NOV-16	FRANCHISE TAX BOARD	JAMBOREE SACRAMENTO 5	20.00			Negotiable
372796		11-NOV-16	IRWD EMPLOYEE ASSOCIATION	15600 SC	850.00	14-NOV-16	850.00	Reconciled
372797		11-NOV-16	PERS LONG TERM CARE	PASADENA	900.58	21-NOV-16	900.58	Reconciled
372798		11-NOV-16	IRVINE UNIFIED SCHOOL DISTRICT	IRVINE 1	2,727.86	17-NOV-16	2,727.86	Reconciled
372799		11-NOV-16	COUNTY OF ORANGE	PO BOX 1438	22,895.46	16-NOV-16	22,895.46	Reconciled
372800		11-NOV-16	COUNTY OF ORANGE	PO BOX 1438	9,046.16	16-NOV-16	9,046.16	Reconciled
372801		15-NOV-16	COUNTY OF ORANGE	CLERK RECORDER	50.00	22-NOV-16	50.00	Reconciled
372802		17-NOV-16	Murphy, Alexander J (Alexander)		1,153.39	28-NOV-16	1,153.39	Reconciled
372803		17-NOV-16	McKinstry, Brian H (Brian)		499.75	21-NOV-16	499.75	Reconciled
372804		17-NOV-16	Karpan, Casey L (Casey)		59.27	23-NOV-16	59.27	Reconciled
372805		17-NOV-16	Compton, Christine A		290.53			Negotiable
372806		17-NOV-16	Jordan, Dawn M (Dawn)		43.04			Negotiable
372807		17-NOV-16	Martinez, Diego		43.00			Negotiable
372808		17-NOV-16	Cho, Harry K (Harry)		409.50			Negotiable
372809		17-NOV-16	Lassalette, James P (Jim)		180.35			Negotiable
372810		17-NOV-16	Burton, Kevin L (Kevin)		23.64	17-NOV-16	23.64	Reconciled
372811		17-NOV-16	Cano, Marco T (Marco)		105.27	25-NOV-16	105.27	Reconciled
372812		17-NOV-16	Sarabia, Mark S (Mark)		300.00			Negotiable
372813		17-NOV-16	Borowski, Michael (Mike)		172.00			Negotiable
372814		17-NOV-16	Pisal, Sudhir		53.46			Negotiable
372815		17-NOV-16	3M COMPANY		219.08	22-NOV-16	219.08	Reconciled
372816		17-NOV-16	4IMPRINT, INC.		574.21	23-NOV-16	574.21	Reconciled

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372817		17-NOV-16	A.J. KLEIN, INC. T. DENATALE, B. GOLDNER		490.00	23-NOV-16	490.00	Reconciled
372818		17-NOV-16	ADVANCED EXERCISE EQUIPMENT, INC.		38,647.14	28-NOV-16	38,647.14	Reconciled
372819		17-NOV-16	AGILENT TECHNOLOGIES, INC.		3,947.13	21-NOV-16	3,947.13	Reconciled
372820		17-NOV-16	ALPHA TRAFFIC SERVICES, INC.		1,140.00			Negotiable
372821		17-NOV-16	AM LEONARD INC		440.20	22-NOV-16	440.20	Reconciled
372822		17-NOV-16	ANTHEM BLUE CROSS		281.13	21-NOV-16	281.13	Reconciled
372823		17-NOV-16	AQUA BEN CORPORATION		33,566.40	23-NOV-16	33,566.40	Reconciled
372824		17-NOV-16	ARIZONA INSTRUMENT LLC		179.23	22-NOV-16	179.23	Reconciled
372825		17-NOV-16	ARMORCAST PRODUCTS COMPANY		7,463.40	21-NOV-16	7,463.40	Reconciled
372826		17-NOV-16	ASTORIA CENTRAL PARK WEST INC.		7,822.41			Negotiable
372827		17-NOV-16	AT&T		48.27	23-NOV-16	48.27	Reconciled
372828		17-NOV-16	ATHENS SERVICES		8,714.74	28-NOV-16	8,714.74	Reconciled
372829		17-NOV-16	AUTOZONE PARTS, INC.		270.71	23-NOV-16	270.71	Reconciled
372830		17-NOV-16	BATTERIES PLUS AND BATTERIES PLUS BULBS		791.35	22-NOV-16	791.35	Reconciled
372831		17-NOV-16	BDC SPECIAL WASTE		207.20	22-NOV-16	207.20	Reconciled
372832		17-NOV-16	BELL TOWER FLORIST & GIFTS		197.62			Negotiable
372833		17-NOV-16	BLAIRS TOWING INC		300.00			Negotiable
372834		17-NOV-16	BRENNTAG PACIFIC INC		2,070.00	21-NOV-16	2,070.00	Reconciled
372835		17-NOV-16	BRUCE NEWELL		2,500.00	23-NOV-16	2,500.00	Reconciled
372836		17-NOV-16	BSI SERVICES AND SOLUTIONS (WEST), INC.		5,272.50	21-NOV-16	5,272.50	Reconciled
372837		17-NOV-16	BURKE, WILLIAMS & SORENSEN, LLP		1,755.00	22-NOV-16	1,755.00	Reconciled
372838		17-NOV-16	BURLINGTON SAFETY LABORATORY OF CALIFORNIA INC		892.67	21-NOV-16	892.67	Reconciled
372839		17-NOV-16	CALIFORNIA BARRICADE RENTAL, INC.		1,957.50	21-NOV-16	1,957.50	Reconciled
372840		17-NOV-16	CALIFORNIA PACIFIC HOMES		5,652.25			Negotiable

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 17  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372841		17-NOV-16	CAROLLO ENGINEERS, INC		76,128.88	30-NOV-16	76,128.88	Reconciled
372842		17-NOV-16	CHARLES P CROWLEY COMPANY INC		9,706.84	30-NOV-16	9,706.84	Reconciled
372843		17-NOV-16	CHEM TECH INTERNATIONAL INC		18,002.04			Negotiable
372844		17-NOV-16	CHO DESIGN ASSOCIATES, INC		6,720.00	28-NOV-16	6,720.00	Reconciled
372845		17-NOV-16	CLA-VAL COMPANY		1,616.41	22-NOV-16	1,616.41	Reconciled
372846		17-NOV-16	COMMERCIAL COATING RESOURCE INC		2,600.00	22-NOV-16	2,600.00	Reconciled
372847		17-NOV-16	CORELOGIC INC		495.00	22-NOV-16	495.00	Reconciled
372848		17-NOV-16	COUNTY OF ORANGE		1.42	29-NOV-16	1.42	Reconciled
372849		17-NOV-16	COUNTY OF ORANGE		82,096.88	23-NOV-16	82,096.88	Reconciled
372850		17-NOV-16	COUNTY OF RIVERSIDE		11,469.14	29-NOV-16	11,469.14	Reconciled
372851		17-NOV-16	CPI-INTERNATIONAL, INC		669.82	21-NOV-16	669.82	Reconciled
372852		17-NOV-16	CURT PRINGLE AND ASSOCIATES		6,000.00			Negotiable
372853		17-NOV-16	DATAZEO, INC.		125.00			Negotiable
372854		17-NOV-16	DAWKINS, LEIGH		53.13			Negotiable
372855		17-NOV-16	DEE JASPAR & ASSOCIATES, INC.		84,593.18	30-NOV-16	84,593.18	Reconciled
372856		17-NOV-16	DEPARTMENT OF WATER RESOURCES		75,610.38	28-NOV-16	75,610.38	Reconciled
372857		17-NOV-16	DISCOVERY SCIENCE CENTER OF ORANGE COUNTY		1,876.98	23-NOV-16	1,876.98	Reconciled
372858		17-NOV-16	DUDEK		2,838.75	25-NOV-16	2,838.75	Reconciled
372859		17-NOV-16	EAGLE PRINT DYNAMICS		4,107.60	21-NOV-16	4,107.60	Reconciled

372860	17-NOV-16	EHS INTERNATIONAL, INC		1,620.00	21-NOV-16	1,620.00	Reconciled
372861	17-NOV-16	EISEL ENTERPRISES INC		11,156.50			Negotiable
372862	17-NOV-16	EMPLOYEE BENEFIT SPECIALIST, INC		1,100.00	22-NOV-16	1,100.00	Reconciled
372863	17-NOV-16	EMPLOYMENT DEVELOPMENT DEPARTMENT		26,134.01	28-NOV-16	26,134.01	Reconciled
372864	17-NOV-16	EVANS-HYDRO INC		62,859.97			Negotiable
372865	17-NOV-16	EXECUTIVE LIGHTING & ELECTRIC		711.74	22-NOV-16	711.74	Reconciled
372866	17-NOV-16	FARRELL & ASSOCIATES		811.60	22-NOV-16	811.60	Reconciled

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 01-DEC-2016 16:50  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar ) Page: 18  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372867		17-NOV-16	FEDEX		1,117.20	25-NOV-16	1,117.20	Reconciled
372868		17-NOV-16	FEDEX NATIONAL LTL, INC		2,349.49	25-NOV-16	2,349.49	Reconciled
372869		17-NOV-16	FIRST CHOICE SERVICES		901.74	22-NOV-16	901.74	Reconciled
372870		17-NOV-16	FISERV		16,876.92	22-NOV-16	16,876.92	Reconciled
372871		17-NOV-16	FISHER SCIENTIFIC COMPANY LLC		2,306.91	21-NOV-16	2,306.91	Reconciled
372872		17-NOV-16	FISHER SCIENTIFIC COMPANY LLC		225.20	21-NOV-16	225.20	Reconciled
372873		17-NOV-16	FLEET SOLUTIONS LLC		4,570.70	23-NOV-16	4,570.70	Reconciled
372874		17-NOV-16	FREEWAY MACHINE & WELDING SHOP		7,233.20	22-NOV-16	7,233.20	Reconciled
372875		17-NOV-16	FRONTIER CALIFORNIA INC.		425.74	23-NOV-16	425.74	Reconciled
372876		17-NOV-16	FUSCOE ENGINEERING, INC.		14,049.00	22-NOV-16	14,049.00	Reconciled
372877		17-NOV-16	GEIGER BROS		5,169.13	23-NOV-16	5,169.13	Reconciled
372878		17-NOV-16	GENERAL MONITORS INC.		4,993.80	22-NOV-16	4,993.80	Reconciled
372879		17-NOV-16	GEORGE HILLS COMPANY, INC.		4,445.50	23-NOV-16	4,445.50	Reconciled
372880		17-NOV-16	GONG, HUI		36.78	30-NOV-16	36.78	Reconciled
372881		17-NOV-16	GORDILLO, PEDRO		132.22	21-NOV-16	132.22	Reconciled
372882		17-NOV-16	GRAINGER		3,604.36	21-NOV-16	3,604.36	Reconciled
372883		17-NOV-16	HAAKER EQUIPMENT COMPANY		1,321.75	22-NOV-16	1,321.75	Reconciled
372884		17-NOV-16	HACH COMPANY		33,119.71	28-NOV-16	33,119.71	Reconciled
372885		17-NOV-16	HADRONEX, INC		5,488.80	22-NOV-16	5,488.80	Reconciled
372886		17-NOV-16	HAMILTON, KURT		2,218.35	28-NOV-16	2,218.35	Reconciled
372887		17-NOV-16	HARBOR ALL GLASS & MIRROR INC.		599.86	28-NOV-16	599.86	Reconciled
372888		17-NOV-16	HARRINGTON INDUSTRIAL PLASTICS LLC		569.76	21-NOV-16	569.76	Reconciled
372889		17-NOV-16	HASLER INC.		3,500.00	25-NOV-16	3,500.00	Reconciled
372890		17-NOV-16	HELP/SYSTEMS, LLC		2,367.00	21-NOV-16	2,367.00	Reconciled
372891		17-NOV-16	HELPMATES STAFFING SERVICES		7,978.58	21-NOV-16	7,978.58	Reconciled
372892		17-NOV-16	HOME DEPOT USA INC		136.77	28-NOV-16	136.77	Reconciled
372893		17-NOV-16	IBM CORPORATION		925.00	23-NOV-16	925.00	Reconciled
372894		17-NOV-16	ICE QUBE, INC.		3,297.48	22-NOV-16	3,297.48	Reconciled
372895		17-NOV-16	INDUSTRIAL ELECTRIC MACHINERY LLC		281.64	22-NOV-16	281.64	Reconciled

IRWD Ledger  
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372896		17-NOV-16	INDUSTRIAL METAL SUPPLY CO		24.88	21-NOV-16	24.88	Reconciled
372897		17-NOV-16	IRVINE COMMUNITY DEVELOPMENT COMPANY LLC		662.92	23-NOV-16	662.92	Reconciled
372898		17-NOV-16	IRVINE PACIFIC		999.40	23-NOV-16	999.40	Reconciled
372899		17-NOV-16	IRVINE PIPE & SUPPLY INC		3,483.09	21-NOV-16	3,483.09	Reconciled
372900		17-NOV-16	IRVINE PROPERTY MANAGEMENT		15.65	21-NOV-16	15.65	Reconciled
372901		17-NOV-16	IRVINE VALLEY COLLEGE FOUNDATION		1,000.00			Negotiable
372902		17-NOV-16	IRWD-PETTY CASH		1,054.49	18-NOV-16	1,054.49	Reconciled

372903	17-NOV-16	CUSTODIAN JOHN ROBINSON CONSULTING, INC.	45,247.25				Negotiable
372904	17-NOV-16	JONES, CONNIE	48.95				Negotiable
372905	17-NOV-16	KAYUGA SOLUTION INC	20,625.00	28-NOV-16		20,625.00	Reconciled
372906	17-NOV-16	KB HOMES	619.43	28-NOV-16		619.43	Reconciled
372907	17-NOV-16	KEC ENGINEERING	2,330.00	30-NOV-16		2,330.00	Reconciled
372908	17-NOV-16	KERN COUNTY TREASURER TAX COLLECTOR	31,263.86	23-NOV-16		31,263.86	Reconciled
372909	17-NOV-16	KING, THOMAS	204.50	29-NOV-16		204.50	Reconciled
372910	17-NOV-16	KLEINFELDER, INC.	33,321.06	25-NOV-16		33,321.06	Reconciled
372911	17-NOV-16	KOEHLER, BETH L	17.48				Negotiable
372912	17-NOV-16	KONECRANES INC	409.50	22-NOV-16		409.50	Reconciled
372913	17-NOV-16	KROHNE, INC	1,469.94	21-NOV-16		1,469.94	Reconciled
372914	17-NOV-16	KUNNEL, PATRICIA	1,467.73				Negotiable
372915	17-NOV-16	L&S CONSTRUCTION INC	2,127.05	23-NOV-16		2,127.05	Reconciled
372916	17-NOV-16	LABELLE-MARVIN INC	10,555.00				Negotiable
372917	17-NOV-16	LAND FORMS LANDSCAPE CONSTRUCTION	1,427.07	23-NOV-16		1,427.07	Reconciled
372918	17-NOV-16	LANDCARE HOLDINGS, INC.	67,331.50	25-NOV-16		67,331.50	Reconciled
372919	17-NOV-16	LI, SHIYING	40.66	25-NOV-16		40.66	Reconciled
372920	17-NOV-16	LILLESTRAND LEADERSHIP CONSULTING, INC.	774.48	30-NOV-16		774.48	Reconciled
372921	17-NOV-16	MARGOLIS, RUTH A	58.51				Negotiable
372922	17-NOV-16	MARSHALL, GAIL	2.88	22-NOV-16		2.88	Reconciled
372923	17-NOV-16	MARVIN GARDENS LLC	3,020.75	17-NOV-16		3,020.75	Reconciled

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 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372924		17-NOV-16	MBC APPLIED ENVIRONMENTAL SCIENCES		1,300.00			Negotiable
372925		17-NOV-16	MC FADDEN-DALE INDUSTRIAL		22.05	22-NOV-16	22.05	Reconciled
372926		17-NOV-16	MC MASTER CARR SUPPLY CO		912.64	21-NOV-16	912.64	Reconciled
372927		17-NOV-16	MCGUIREWOODS LLP		7,000.00			Negotiable
372928		17-NOV-16	MOULTON NIGUEL WATER DISTRICT		746.10	22-NOV-16	746.10	Reconciled
372929		17-NOV-16	MR CRANE INC		4,253.25	22-NOV-16	4,253.25	Reconciled
372930		17-NOV-16	NATIONAL READY MIXED CONCRETE CO.		580.00	21-NOV-16	580.00	Reconciled
372931		17-NOV-16	NINYO & MOORE		17,585.50	23-NOV-16	17,585.50	Reconciled
372932		17-NOV-16	NORTHWOOD PARK APTS		7.09	28-NOV-16	7.09	Reconciled
372933		17-NOV-16	NORTHWOOD PLACE APTS		23.34	28-NOV-16	23.34	Reconciled
372934		17-NOV-16	NOSSAMAN LLP		6,343.00	21-NOV-16	6,343.00	Reconciled
372935		17-NOV-16	NOVA, AMANA		14.20			Negotiable
372936		17-NOV-16	NOVACOAST INC		1,487.50	21-NOV-16	1,487.50	Reconciled
372937		17-NOV-16	OCTA		523.00	23-NOV-16	523.00	Reconciled
372938		17-NOV-16	OLSON, HAGEL & FISHBURN, LLP		723.50	21-NOV-16	723.50	Reconciled
372939		17-NOV-16	ONESOURCE DISTRIBUTORS LLC		1,008.25	21-NOV-16	1,008.25	Reconciled
372940		17-NOV-16	ORANGE COUNTY AUTO PARTS CO		652.73	21-NOV-16	652.73	Reconciled
372941		17-NOV-16	ORTHO XPRESS DISTRIBUTION INC		52.65	21-NOV-16	52.65	Reconciled
372942		17-NOV-16	OUTSOURCE TECHNICAL LLC		6,095.00	21-NOV-16	6,095.00	Reconciled
372943		17-NOV-16	PACRIM ENGINEERING INC.		15,135.00			Negotiable
372944		17-NOV-16	PANATTONI DEVELOPMENT CO LLC		244.89			Negotiable
372945		17-NOV-16	PARKHOUSE TIRE INC		1,555.63	22-NOV-16	1,555.63	Reconciled
372946		17-NOV-16	PEPI COMPANY OF CALIFORNIA LLC		5,084.64			Negotiable
372947		17-NOV-16	PIVOT INTERIORS INC		3,477.57	21-NOV-16	3,477.57	Reconciled
372948		17-NOV-16	PMC ENGINEERING LLC.		6,164.71	21-NOV-16	6,164.71	Reconciled
372949		17-NOV-16	QUINN COMPANY		93.36	21-NOV-16	93.36	Reconciled
372950		17-NOV-16	R.J. NOBLE COMPANY		1,929.60			Negotiable

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Cleared

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372951		17-NOV-16	RAINBOW DISPOSAL CO INC		357.36	28-NOV-16	357.36	Reconciled
372952		17-NOV-16	RAM AIR ENGINEERING INC		9,482.10	22-NOV-16	9,482.10	Reconciled
372953		17-NOV-16	REAL WATER CONSULTANTS INC.		21,330.00	23-NOV-16	21,330.00	Reconciled
372954		17-NOV-16	RED WING SHOES		727.03	21-NOV-16	727.03	Reconciled
372955		17-NOV-16	RINCON TRUCK CENTER INC.		1,205.99	21-NOV-16	1,205.99	Reconciled
372956		17-NOV-16	RMC WATER AND ENVIRONMENT		10,073.47	28-NOV-16	10,073.47	Reconciled
372957		17-NOV-16	ROBERT HALF INTERNATIONAL, INC.		169.76	21-NOV-16	169.76	Reconciled
372958		17-NOV-16	S & J SUPPLY CO INC		5,493.37	22-NOV-16	5,493.37	Reconciled
372959		17-NOV-16	SAN DIEGO FLUID SYSTEM TECH		99.01	22-NOV-16	99.01	Reconciled
372960		17-NOV-16	SAN LEON APTS		102.49	30-NOV-16	102.49	Reconciled
372961		17-NOV-16	SANDERS PAVING INC		37,503.75			Negotiable
372962		17-NOV-16	SANTA ANA BLUE PRINT		987.12	21-NOV-16	987.12	Reconciled
372963		17-NOV-16	SANTA MARGARITA FORD		682.35	21-NOV-16	682.35	Reconciled
372964		17-NOV-16	SANTIAGO AQUEDUCT COMMISSION		144,736.83	21-NOV-16	144,736.83	Reconciled
372965		17-NOV-16	SCHINDLER ELEVATOR CORPORATION		188.97	25-NOV-16	188.97	Reconciled
372966		17-NOV-16	SEAL ANALYTICAL INC		960.93	23-NOV-16	960.93	Reconciled
372967		17-NOV-16	SEPARATION PROCESSES INC		1,890.00	23-NOV-16	1,890.00	Reconciled
372968		17-NOV-16	SHAMROCK SUPPLY CO INC		988.82	21-NOV-16	988.82	Reconciled
372969		17-NOV-16	SILVERWOOD LANDSCAPE		2,028.45	21-NOV-16	2,028.45	Reconciled
372970		17-NOV-16	SLATTERY, KIMBERLY		264.01			Negotiable
372971		17-NOV-16	SOUTHERN CALIFORNIA EDISON COMPANY		91,765.68	23-NOV-16	91,765.68	Reconciled
372972		17-NOV-16	SPENCER, JEFFREY		399.45	21-NOV-16	399.45	Reconciled
372973		17-NOV-16	SPRINT NEXTEL		9.86	29-NOV-16	9.86	Reconciled
372974		17-NOV-16	SPX CORP		1,315.38	23-NOV-16	1,315.38	Reconciled
372975		17-NOV-16	STANDARD PACIFIC HOMES		78.14			Negotiable

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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
372976		17-NOV-16	STANFORD COURT APARTMENTS		13.43	23-NOV-16	13.43	Reconciled
372977		17-NOV-16	STANTEC CONSULTING SERVICES INC.		28,113.00	25-NOV-16	28,113.00	Reconciled
372978		17-NOV-16	STATE BOARD OF EQUALIZATION		943.00	28-NOV-16	943.00	Reconciled
372979		17-NOV-16	STATE WATER RESOURCES CONTROL BOARD		79,679.34	28-NOV-16	79,679.34	Reconciled
372980		17-NOV-16	STATE WATER RESOURCES CONTROL BOARD		230.00	22-NOV-16	230.00	Reconciled
372981		17-NOV-16	SUKLE ADVERTISING INC.		15,000.08	30-NOV-16	15,000.08	Reconciled
372982		17-NOV-16	SUN RANCH CAPITOL PARTNERS		580.93			Negotiable
372983		17-NOV-16	TAYLOR MORRISON		716.05	30-NOV-16	716.05	Reconciled
372984		17-NOV-16	TAYLOR WOODROW HOMES		584.22	30-NOV-16	584.22	Reconciled
372985		17-NOV-16	TETRA TECH, INC		25,753.36	25-NOV-16	25,753.36	Reconciled
372986		17-NOV-16	THE DISTRICT AT TUSTIN LEGACY		152.16			Negotiable
372987		17-NOV-16	THE GAS COMPANY		203.90	22-NOV-16	203.90	Reconciled
372988		17-NOV-16	THE NEW HOME COMPANY		515.43			Negotiable
372989		17-NOV-16	TOLL BROS., INC.		1,429,201.68	29-NOV-16	1,429,201.68	Reconciled
372990		17-NOV-16	TORAY MEMBRANE USA, INC.		6,068.33	21-NOV-16	6,068.33	Reconciled
372991		17-NOV-16	TRIPAC MARKETING INC		608.06	23-NOV-16	608.06	Reconciled
372992		17-NOV-16	TRIPOLITE HOMES		125.81			Negotiable
372993		17-NOV-16	TROPICAL PLAZA NURSERY INC		4,674.00	22-NOV-16	4,674.00	Reconciled
372994		17-NOV-16	TRUCPARCO		3,872.78	28-NOV-16	3,872.78	Reconciled
372995		17-NOV-16	TURTLE ROCK CANYON		11.45	28-NOV-16	11.45	Reconciled

372996	17-NOV-16	APTS UNITED PARCEL SERVICE INC	62.58	21-NOV-16	62.58	Reconciled
372997	17-NOV-16	UNITED SITE SERVICES OF CALIFORNIA INC	152.31	23-NOV-16	152.31	Reconciled
372998	17-NOV-16	VWR INTERNATIONAL, LLC	687.31	22-NOV-16	687.31	Reconciled
372999	17-NOV-16	WACO FILTERS CORPORATION	8,198.16	25-NOV-16	8,198.16	Reconciled

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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373000		17-NOV-16	WALTERS WHOLESALE ELECTRIC		916.23	22-NOV-16	916.23	Reconciled
373001		17-NOV-16	WASTE MANAGEMENT OF ORANGE COUNTY		689.45	22-NOV-16	689.45	Reconciled
373002		17-NOV-16	WAXIE'S ENTERPRISES, INC		2,216.42	25-NOV-16	2,216.42	Reconciled
373003		17-NOV-16	WECK LABORATORIES INC		585.00	25-NOV-16	585.00	Reconciled
373004		17-NOV-16	WELLS FARGO BANK		100.00			Negotiable
373005		17-NOV-16	WESTERN STATES TECHNOLOGIES		175.35	29-NOV-16	175.35	Reconciled
373006		17-NOV-16	WILLIAM LYON HOMES, INC.		835.49			Negotiable
373007		17-NOV-16	YANG, LIHONG		101.50			Negotiable
373008		17-NOV-16	YSI, INC		23,263.40	25-NOV-16	23,263.40	Reconciled
373009		21-NOV-16	RALPHS GROCERY COMPANY	PAY	16,815.00			Negotiable
373010		21-NOV-16	IRWD EMPLOYEE ASSOCIATION	15600 SC	850.00	25-NOV-16	850.00	Reconciled
373011		21-NOV-16	PERS LONG TERM CARE	PASADENA	900.58	29-NOV-16	900.58	Reconciled
373012		21-NOV-16	ORANGE COUNTY SHERIFF'S OFFICE	4601 JAMBOREE	62.50			Negotiable
373013		21-NOV-16	FRANCHISE TAX BOARD	SACRAMENTO 5	20.00			Negotiable
373014		21-NOV-16	CLEARINGHOUSE	PHOENIX	477.67	28-NOV-16	477.67	Reconciled
373015		21-NOV-16	JCI JONES CHEMICALS INC	CINCINNATI	3,019.38	28-NOV-16	3,019.38	Reconciled
373016		21-NOV-16	ANTHEM BLUE CROSS	LOS ANGELES	207.81	28-NOV-16	207.81	Reconciled
373017		21-NOV-16	STATE WATER RESOURCES CONTROL BOARD	SACRAMENTO 1	923.88			Negotiable
373018		21-NOV-16	EMBERS RIDGE, LLC	INS CLAIM	1,762.55			Negotiable
373019		21-NOV-16	CALDERON, ESTER	INS CLAIM	1,915.82	28-NOV-16	1,915.82	Reconciled
373020		21-NOV-16	ALLIANT INSURANCE SERVICES, INC	PURCHASE_P AY	9,563.52			Negotiable
373021		23-NOV-16	JCI JONES CHEMICALS INC	CINCINNATI	2,332.89	28-NOV-16	2,332.89	Reconciled
373022		23-NOV-16	WATERWISE CONSULTING, INC.	SAN DIMAS	5,750.00	29-NOV-16	5,750.00	Reconciled
373023		29-NOV-16	Moore, Jonathon C (Jon)		112.32			Negotiable
373024		29-NOV-16	Marcaccci, Mark		49.52			Negotiable
373025		29-NOV-16	Seesangrit, Melody M		198.74			Negotiable

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373026		29-NOV-16	Saini, Mohit		55.61			Negotiable
373027		29-NOV-16	Wyss, Noemi		184.21			Negotiable
373028		29-NOV-16	Malloy, Steven L (Steven)		30.00			Negotiable
373029		29-NOV-16	Bonkowski, Thomas J (Thomas)		27.11			Negotiable
373030		29-NOV-16	A&A WIPING CLOTH CO		1,136.16			Negotiable
373031		29-NOV-16	AIRGAS, INC.		1,486.89			Negotiable
373032		29-NOV-16	ALEXANDER'S CONTRACT SERVICES, INC.		1,522.50			Negotiable
373033		29-NOV-16	ALL AMERICAN SEWER TOOLS		1,726.93			Negotiable
373034		29-NOV-16	ANDERSONPENNA PARTNERS, INC.		40,765.00			Negotiable
373035		29-NOV-16	AQUA-METRIC SALES		1,271.86			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
373036		29-NOV-16	COMPANY ARCADIS U.S., INC.		10,710.91			Negotiable
373037		29-NOV-16	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		2,195.62			Negotiable
373038		29-NOV-16	AT&T		3,797.44			Negotiable
373039		29-NOV-16	AT&T		7,402.53			Negotiable
373040		29-NOV-16	AT&T SERVICES, INC.		6,903.75			Negotiable
373041		29-NOV-16	ATHENS SERVICES		1,563.60			Negotiable
373042		29-NOV-16	AUTOZONE PARTS, INC.		57.63			Negotiable
373043		29-NOV-16	BELMONTE, FRANCIS		236.46			Negotiable
373044		29-NOV-16	BHATIA, ANISHA		552.67			Negotiable
373045		29-NOV-16	BILL'S SWEEPING SERVICE INC		460.00			Negotiable
373046		29-NOV-16	BOYD & ASSOCIATES		125.00			Negotiable
373047		29-NOV-16	BRACHMANN, RAEYN		29.25			Negotiable
373048		29-NOV-16	BROWN AND CALDWELL		4,854.57			Negotiable
373049		29-NOV-16	C L OLSON & ASSOCIATES, INC.		2,800.00			Negotiable
373050		29-NOV-16	CALIFORNIA BARRICADE RENTAL, INC.		8,259.59			Negotiable
373051		29-NOV-16	CANON FINANCIAL SERVICES, INC		8,710.42			Negotiable
373052		29-NOV-16	CAROLLO ENGINEERS, INC		1,810.50			Negotiable
373053		29-NOV-16	CHANAWATR, VIC		1,363.27			Negotiable

IRWD Ledger  
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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373054		29-NOV-16	CHARLES P CROWLEY COMPANY INC		748.65			Negotiable
373055		29-NOV-16	CHEM TECH INTERNATIONAL INC		16,592.50			Negotiable
373056		29-NOV-16	CITY OF LAKE FOREST		6,492.73			Negotiable
373057		29-NOV-16	CITY OF NEWPORT BEACH		1,107.25			Negotiable
373058		29-NOV-16	CITY OF SANTA ANA		101.25			Negotiable
373059		29-NOV-16	CNC ENGINEERING		1,065.00			Negotiable
373060		29-NOV-16	COMMERCE ENERGY INC		322.69			Negotiable
373061		29-NOV-16	COMMERCIAL DOOR OF ORANGE COUNTY, INC.		1,771.03			Negotiable
373062		29-NOV-16	CORELOGIC INC		42.00			Negotiable
373063		29-NOV-16	COUNTY OF RIVERSIDE		1,270.00			Negotiable
373064		29-NOV-16	COX COMMUNICATIONS, INC.		109.00			Negotiable
373065		29-NOV-16	CPI-INTERNATIONAL, INC		121.15			Negotiable
373066		29-NOV-16	CREDENTIAL CHECK CORPORATION		162.80			Negotiable
373067		29-NOV-16	CROLL, SARA		6.77			Negotiable
373068		29-NOV-16	CSAC EXCESS INSURANCE AUTHORITY		2,382.00			Negotiable
373069		29-NOV-16	D & G SIGNS		9,487.80			Negotiable
373070		29-NOV-16	DANGELO CO		1,010.88			Negotiable
373071		29-NOV-16	DATAZEO, INC.		5,291.00			Negotiable
373072		29-NOV-16	DEACON, JANET		610.88			Negotiable
373073		29-NOV-16	DEACON, JANET		835.55			Negotiable
373074		29-NOV-16	DIRECTV INC		115.98			Negotiable
373075		29-NOV-16	DISCOUNT COURIER SERVICE		155.80			Negotiable
373076		29-NOV-16	DIVITA BUILDERS INC.		1,219.91			Negotiable
373077		29-NOV-16	FARRELL & ASSOCIATES		222.21			Negotiable
373078		29-NOV-16	FEDEX		312.03			Negotiable
373079		29-NOV-16	FISHER SCIENTIFIC COMPANY LLC		10,610.01			Negotiable
373080		29-NOV-16	FLEET SOLUTIONS LLC		669.62			Negotiable

IRWD Ledger  
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Payment Document : IRWD CHECK

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
373081		29-NOV-16	FORESTRY SUPPLIERS INC		23.55			Negotiable
373082		29-NOV-16	FRANK LA PLACA EXTERMINATING, INC.		175.00			Negotiable
373083		29-NOV-16	FRONTIER CALIFORNIA INC.		150.50			Negotiable
373084		29-NOV-16	FULLER TRUCK ACCESSORIES		1,076.55			Negotiable
373085		29-NOV-16	GAO, PAN		135.32			Negotiable
373086		29-NOV-16	GARZA INDUSTRIES, INC		2,591.16			Negotiable
373087		29-NOV-16	GENTERRA CONSULTANTS INC		4,437.50			Negotiable
373088		29-NOV-16	GLUMAC		32.40			Negotiable
373089		29-NOV-16	GRAINGER		2,989.94			Negotiable
373090		29-NOV-16	GWAVA TECHNOLOGIES, INC.		2,492.00			Negotiable
373091		29-NOV-16	HACH COMPANY		6,118.76			Negotiable
373092		29-NOV-16	HARRINGTON INDUSTRIAL PLASTICS LLC		442.05			Negotiable
373093		29-NOV-16	HATCH, HAIDEN		75.56			Negotiable
373094		29-NOV-16	HDR ENGINEERING INC		77,077.32			Negotiable
373095		29-NOV-16	HEALTH SCIENCE ASSOCIATES, INC.		21,881.50			Negotiable
373096		29-NOV-16	HELPMATES STAFFING SERVICES		10,136.96			Negotiable
373097		29-NOV-16	HOME DEPOT USA INC		1,546.89			Negotiable
373098		29-NOV-16	HOSEIN, HAZEM		34.38			Negotiable
373099		29-NOV-16	IBM CORPORATION		4,075.00			Negotiable
373100		29-NOV-16	IDEXX DISTRIBUTION, INC		1,152.91			Negotiable
373101		29-NOV-16	INFOSYS LIMITED		86,915.00			Negotiable
373102		29-NOV-16	IRON MOUNTAIN INFORMATION MANAGEMENT INC		1,358.40			Negotiable
373103		29-NOV-16	IRVINE PIPE & SUPPLY INC		5,151.15			Negotiable
373104		29-NOV-16	JH TECHNOLOGIES, INC		17,738.83			Negotiable
373105		29-NOV-16	JOHNSTONE SUPPLY		1,234.50			Negotiable
373106		29-NOV-16	KASA CONSTRUCTION		977.41			Negotiable

IRWD Ledger  
 BANK: Bank of America N.A. Branch : Los Angeles  
 Bank Account Currency: USD ( US Dollar )  
 Payment Type: All  
 Payment Register For 01-NOV-16 To 30-NOV-16  
 Account: Checking AP and PR  
 Payment Currency: USD ( US Dollar )  
 Display Supplier Address: No  
 Report Date: 01-DEC-2016 16:50  
 Page: 27

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373107		29-NOV-16	KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES		1,050.00			Negotiable
373108		29-NOV-16	KPMG LLP		202,080.00			Negotiable
373109		29-NOV-16	KPRS CONSTRUCTION SERVICES, INC.		877.11			Negotiable
373110		29-NOV-16	LANTEC PRODUCTS, INC.		12,997.78			Negotiable
373111		29-NOV-16	LEWIS BRISBOIS BISGAARD AND SMITH, LLP		1,920.00			Negotiable
373112		29-NOV-16	LLOYD, HERB F		18.75			Negotiable
373113		29-NOV-16	LU'S LIGHTHOUSE, INC.		559.39			Negotiable
373114		29-NOV-16	MARVIN GARDENS LLC		388.80			Negotiable
373115		29-NOV-16	MC MASTER CARR SUPPLY CO		1,068.33			Negotiable
373116		29-NOV-16	METROPOLIS GARDENS LLC		819.33			Negotiable
373117		29-NOV-16	MSC INDUSTRIAL SUPPLY CO		782.57			Negotiable
373118		29-NOV-16	MUNICIPAL UNDERGROUND SERVICES INC		8,925.00			Negotiable
373119		29-NOV-16	NATIONAL READY MIXED CONCRETE CO.		832.40			Negotiable
373120		29-NOV-16	NEWPORT WINDOW MAINTENANCE INC		2,224.00			Negotiable
373121		29-NOV-16	NGUYEN, RICHARD		2,076.02			Negotiable
373122		29-NOV-16	NI, ANCHENG		40.21			Negotiable
373123		29-NOV-16	NOSSAMAN LLP		294.00			Negotiable
373124		29-NOV-16	NOVAK, OLIVIA		235.19			Negotiable
373125		29-NOV-16	OLIN CORPORATION		26,533.39			Negotiable
373126		29-NOV-16	ON ASSIGNMENT LAB SUPPORT		2,380.00			Negotiable
373127		29-NOV-16	ONESOURCE DISTRIBUTORS LLC		331.12			Negotiable
373128		29-NOV-16	ORANGE COUNTY AUTO		415.34			Negotiable

373129	29-NOV-16	PARTS CO PACIFIC COAST BOLT CORP	1,779.33	Negotiable
373130	29-NOV-16	PACIFIC EH&S SERVICES, INC.	3,978.28	Negotiable
373131	29-NOV-16	PARKHOUSE TIRE INC	1,001.55	Negotiable
373132	29-NOV-16	PAULUS ENGINEERING INC	7,200.00	Negotiable

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 28  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373133		29-NOV-16	PELLETIER & ASSOCIATES, INC.		120.00			Negotiable
373134		29-NOV-16	PINNACLE TOWERS LLC		666.04			Negotiable
373135		29-NOV-16	PMC ENGINEERING LLC.		4,585.00			Negotiable
373136		29-NOV-16	PRAXAIR DISTRIBUTION INC		994.82			Negotiable
373137		29-NOV-16	PROCARE WORK INJURY CENTER		135.00			Negotiable
373138		29-NOV-16	PSOMAS		7,588.75			Negotiable
373139		29-NOV-16	QWEST ENGINEERING, INC.		2,359.53			Negotiable
373140		29-NOV-16	R & S SOIL PRODUCTS INC		842.40			Negotiable
373141		29-NOV-16	R C FOSTER CORPORATION		85,469.84			Negotiable
373142		29-NOV-16	RAM AIR ENGINEERING INC		10,405.15			Negotiable
373143		29-NOV-16	RANCHO ALISAL APTS		42.98			Negotiable
373144		29-NOV-16	RANCHO MADERAS APTS		11.50			Negotiable
373145		29-NOV-16	RANCHO TIERRA APTS		9.70			Negotiable
373146		29-NOV-16	RED WING SHOES		200.00			Negotiable
373147		29-NOV-16	RESPONSE ENVELOPE, INC		3,419.55			Negotiable
373148		29-NOV-16	RESTEK CORPORATION		2,179.27			Negotiable
373149		29-NOV-16	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		19,775.38			Negotiable
373150		29-NOV-16	ROWLEY, IDA		139.77			Negotiable
373151		29-NOV-16	SANTA ANA BLUE PRINT		1,209.84			Negotiable
373152		29-NOV-16	SANTA MARGARITA FORD		89.95			Negotiable
373153		29-NOV-16	SANTA MARGARITA WATER DISTRICT		169.71			Negotiable
373154		29-NOV-16	SCIENCE FIRST LLC		154.60			Negotiable
373155		29-NOV-16	SIEMENS DEMAG DELAVAL TURBOMACHINERY, INC.		17,592.15			Negotiable
373156		29-NOV-16	SONG, CHUNXIAO		885.31			Negotiable
373157		29-NOV-16	SOUTHERN CALIFORNIA EDISON COMPANY		268,645.32			Negotiable

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 29  
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 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373158		29-NOV-16	SOUTHERN CALIFORNIA SECURITY CENTERS, INC.		306.00			Negotiable
373159		29-NOV-16	SPARKLETTS		359.00			Negotiable
373160		29-NOV-16	STANTEC CONSULTING SERVICES INC.		19,592.30			Negotiable
373161		29-NOV-16	STRASBOURG, SOLANGE		171.06			Negotiable
373162		29-NOV-16	SWAINS ELECTRIC MOTOR SERVICE		7,838.40			Negotiable
373163		29-NOV-16	THYSSENKRUPP ELEVATOR CORPORATION		428.00			Negotiable
373164		29-NOV-16	TOLL BROS., INC		727.18			Negotiable
373165		29-NOV-16	TRAN, HAU		114.38			Negotiable
373166		29-NOV-16	TRIPAC MARKETING INC		1,377.63			Negotiable
373167		29-NOV-16	TROPICAL PLAZA		29,580.12			Negotiable

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
373168		29-NOV-16	NURSERY INC		1,025.57			Negotiable
373169		29-NOV-16	TRUCPARCO		976.50			Negotiable
			UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA					
373170		29-NOV-16	UNITED ENGINEERING & CONSTRUCTION INC.		40.33			Negotiable
373171		29-NOV-16	UNITED PARCEL SERVICE INC		36.56			Negotiable
373172		29-NOV-16	UNITED WATER WORKS, INC.		680.14			Negotiable
373173		29-NOV-16	URS CORPORATION		3,761.71			Negotiable
373174		29-NOV-16	US BANK NAT'L ASSOCIATION NORTH DAKOTA		100,495.40			Negotiable
			UTILITY SYSTEMS SCIENCE & SOFTWARE INC.					
373175		29-NOV-16	UTILITY SYSTEMS SCIENCE & SOFTWARE INC.		12,704.00			Negotiable
373176		29-NOV-16	VAN DYKE FARMS, INC.		540.00			Negotiable
373177		29-NOV-16	VCS ENVIRONMENTAL		460.10			Negotiable
373178		29-NOV-16	VWR INTERNATIONAL, LLC		1,779.29			Negotiable
373179		29-NOV-16	WARE MALCOMB		5,940.46			Negotiable

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
373180		29-NOV-16	WASTE MANAGEMENT OF ORANGE COUNTY		1,056.70			Negotiable
373181		29-NOV-16	WATER SYSTEMS OPTIMIZATION, INC.		3,350.00			Negotiable
373182		29-NOV-16	WAXIE'S ENTERPRISES, INC		1,851.23			Negotiable
373183		29-NOV-16	WECK LABORATORIES INC		155.00			Negotiable
373184		29-NOV-16	WEST DESERT PROPERTIES LLC		1,078.08			Negotiable
373185		29-NOV-16	WESTERN SAFETY PRODUCTS INC		4,144.76			Negotiable
373186		29-NOV-16	KYLEM WATER SOLUTIONS USA INC		9,593.76			Negotiable
373187		29-NOV-16	YSI, INC		2,992.06			Negotiable
Payment Document Subtotal:					11,311,249.64		9,651,161.58	

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
11792		01-NOV-16	YORK INSURANCE PAY SERVICES GROUP INC - CA		2,378.83			Negotiable
11793		07-NOV-16	EMPLOYEE BENEFIT SPECIALIST, INC		52,223.92			Negotiable
11794		08-NOV-16	YORK INSURANCE PAY SERVICES GROUP INC - CA		6,155.73			Negotiable
11795		08-NOV-16	CALPERS SACRAMENTO		82,424.24			Negotiable
11796		08-NOV-16	CALPERS SACRAMENTO		87,662.58			Negotiable
11797		08-NOV-16	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	58,839.15			Negotiable
11798		08-NOV-16	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	7,564.15			Negotiable
11799		08-NOV-16	U.S. BANK NATIONALPAY ASSOCIATION		29,849.75			Negotiable
11800		08-NOV-16	BANK OF AMERICA	SAN FRANCISCO	28,312.87			Negotiable
11801		08-NOV-16	SUMITOMO MITSUI BANKING CORPORATION	NEW YORK	32,815.57			Negotiable
11802		08-NOV-16	U.S. BANK NATIONALPAY ASSOCIATION		14,424.73			Negotiable

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
11803		08-NOV-16	CALPERS	SACRAMENTO	87,589.22			Negotiable

11804	08-NOV-16	CALPERS	SACRAMENTO	87,565.19	Negotiable
11805	15-NOV-16	YORK INSURANCE SERVICES GROUP INC - CA	PAY	4,938.50	Negotiable
11806	15-NOV-16	BONDILI, KALYAN	PAY	23.70	Negotiable
11807	16-NOV-16	FILANC-BALFOUR BEATTY JV	ACT 4427724347	3,378,983.43	Negotiable
11808	16-NOV-16	FILANC-BALFOUR BEATTY JV	ESR 211084000	375,442.60	Negotiable
11809	16-NOV-16	U.S. BANK NATIONALST. LOUIS ASSOCIATION		9,854.65	Negotiable
11810	16-NOV-16	INTERNAL REVENUE SERVICE	FRESNO	220,115.35	Negotiable
11811	16-NOV-16	FRANCHISE TAX BOARD	SACRAMENTO	60,049.28	Negotiable
11812	16-NOV-16	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	9,432.42	Negotiable
11813	16-NOV-16	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.77	Negotiable
11814	16-NOV-16	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,866.13	Negotiable
11815	16-NOV-16	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,679.48	Negotiable
11816	16-NOV-16	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	165,199.88	Negotiable
11817	17-NOV-16	PCL CONSTRUCTION, INC.	ACCT 6971821722	2,073,872.70	Negotiable
11818	17-NOV-16	PCL CONSTRUCTION, INC.	ESR 141511.1	230,430.30	Negotiable
11819	17-NOV-16	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	1,213,261.56	Negotiable
11820	17-NOV-16	MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY	FOUNTAIN	300,385.80	Negotiable
11821	22-NOV-16	INTERNAL REVENUE SERVICE	FRESNO	8.69	Negotiable
11822	22-NOV-16	FRANCHISE TAX BOARD	SACRAMENTO	3.13	Negotiable

IRWD Ledger Payment Register For 01-NOV-16 To 30-NOV-16 Report Date: 01-DEC-2016 16:50  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 32  
 Bank Account Currency: USD ( US Dollar ) Payment Currency: USD ( US Dollar )  
 Payment Type: All Display Supplier Address: No

Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD Wire								
11823		23-NOV-16	YORK INSURANCE SERVICES GROUP INC - CA	PAY	8,459.71			Negotiable
11824		23-NOV-16	FORESITE ESCROW, INC.	BARDEEN PT/PVID	1,540,533.02			Negotiable
11825		29-NOV-16	INTERNAL REVENUE SERVICE	FRESNO	188,212.67			Negotiable
11826		29-NOV-16	FRANCHISE TAX BOARD	SACRAMENTO	51,703.56			Negotiable
11827		29-NOV-16	EMPLOYMENT DEVELOPMENT DEPARTMENT	W SACRAMENTO	7,802.36			Negotiable
11828		29-NOV-16	ORDONEZ, CYNTHIA MARIE	DESERT HOT SPR	500.77			Negotiable
11829		29-NOV-16	CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES	SACRAMENTO	2,866.13			Negotiable
11830		29-NOV-16	EMPLOYEE BENEFIT SPECIALIST, INC	PAY	10,125.83			Negotiable
11831		29-NOV-16	GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY	DENVER	99,931.06			Negotiable
11832		29-NOV-16	YORK INSURANCE SERVICES GROUP INC - CA	PAY	1,085.37			Negotiable
11833		30-NOV-16	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	2,100.69			Negotiable
11834		30-NOV-16	BANK OF NEW YORK MELLON TRUST COMPANY NA	NEWARK	583.33			Negotiable

Payment Document Subtotal: 10,547,758.80

Bank Account Subtotal : 21,859,008.44 **Disbursements** 8,651,161.58

Report Count : 800 Report Total: 21,859,008.44 9,651,161.58

IRWD Ledger

BANK:

Bank Account Currency: ( )  
Payment Type: All

Branch :

Payment Register For 01-NOV-16 To 30-NOV-16

Account:

Payment Currency: ( )  
Display Supplier Address: No

Report Date: 01-DEC-2016 16:50

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Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
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\*\*\* End of Report \*\*\*

\$ 21,859,008.44	Disbursements
<u>&lt;1,203.98</u>	<u>Voids</u>
\$ 21,857,804.46	Total Voids and Disbursements

Exhibit "E"

**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-16 to 30-NOV-16

NAME	CHECK NUMBER	CHECK DATE	TRANSACTION AMOUNT	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Oldewage, Lars D (Lars)	372443	3-Nov-16	\$190.00	Membership/Certification Renewal	September/October 2016 Monthly Expense
Moore, Rory M (Rory)	372446	3-Nov-16	172.00	Membership/Certification Renewal	Rory Moore - CWEA Membership
Yue, Andrew R (Andrew)	372436	3-Nov-16	113.37	Other(Misc)	safety shoe allowance
Pham, Amie	372435	3-Nov-16	113.18	Other(Misc)	Safety Shoe Allowance
Barreto, Gustavo (Gus)	372439	3-Nov-16	170.00	Membership/Certification Renewal	Gus Barreto - CWEA E-I Grade II fee
Rutherford, Allan	372433	3-Nov-16	172.00	Membership/Certification Renewal	Allan Rutherford - CWEA Membership
Reideler, Kevin	372442	3-Nov-16	164.00	Membership/Certification Renewal	Kevin Reideler - Collections II
Malloy, Steven L (Steven)	372630	10-Nov-16	115.00	Membership/Certification Renewal	PE Renewal
Akiyoshi, Eric S (Eric)	372627	10-Nov-16	116.00	Membership/Certification Renewal	PE Renewal
Vazquez, Rafael	372629	10-Nov-16	180.00	Membership/Certification Renewal	Rafael Vazquez - SWRCB WW Grade II Exam
Vazquez, Rafael	372629	10-Nov-16	230.00	Membership/Certification Renewal	Rafael Vazquez - SWRCB WW Grade II Exam
Cho, Harry K (Harry)	372808	17-Nov-16	262.00	Membership/Certification Renewal	AWWA Membership Renewal & Chlorination
Cho, Harry K (Harry)	372808	17-Nov-16	147.50	Other(Misc)	AWWA Membership Renewal & Chlorination
McKinstry, Brian H (Brian)	372803	17-Nov-16	499.75	Other(Misc)	doForms Order
Murphy, Alexander J (Alexander)	372802	17-Nov-16	230.00	Lodging	AWWA Water Infrastructure Conference
Murphy, Alexander J (Alexander)	372802	17-Nov-16	230.00	Lodging	AWWA Water Infrastructure Conference
Murphy, Alexander J (Alexander)	372802	17-Nov-16	230.00	Lodging	AWWA Water Infrastructure Conference
Murphy, Alexander J (Alexander)	372802	17-Nov-16	280.00	Membership/Certification Renewal	Professional Organization Membership
Cano, Marco T (Marco)	372811	17-Nov-16	105.27	Other(Misc)	Marco Cano - Wireless Device Cover
Lassalette, James P (Jim)	372809	17-Nov-16	180.35	Other(Misc)	safety shoe allowance
Sarabia, Mark S (Mark)	372812	17-Nov-16	300.00	Membership/Certification Renewal	Cert. Renewal
Compton, Christine A	372805	17-Nov-16	179.19	Lodging	Oct 2016 Expenses
Borowski, Michael (Mike)	372813	17-Nov-16	172.00	Membership/Certification Renewal	Mike Borowski - CWEA Membership Fee
Moore, Jonathon C (Jon)	373023	29-Nov-16	112.32	Other(Misc)	Safety Shoe Allowance
Wyss, Noemi	373027	29-Nov-16	184.21	Other(Misc)	Safety Shoe Allowance

**Total Amount: 4,848.14**

December 12, 2016

Prepared by: Eileen Lin *EL*

Submitted by: Cheryl Clary *CC*

Approved by: Paul Cook *PC*

## CONSENT CALENDAR

### FY 2015-16 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, 2016. 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, 2016 and conform with generally accepted accounting principles.

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".

#### BACKGROUND:

At the November 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 have 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 states that the audit did not identify any material weakness deficiencies in internal control. In addition, the report states 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 IRWD Comprehensive Annual Financial Report:

The FY 2015-16 CAFR is being prepared for the thirteenth consecutive year by the District. All of the District'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 be available on the District's 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 1, 2016.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit "A" – Draft FY 2015-16 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



MWRP Biosolids Facility - October 2016

**IRVINE RANCH WATER DISTRICT**  
**Comprehensive Annual Financial Report**  
For Fiscal Year Ended June 30, 2016  
Irvine, California

Water makes it possible.

# Comprehensive Annual Financial Report

For fiscal year ended June 30, 2016

Irvine Ranch Water District  
Irvine, California

## Board of Directors

Mary Aileen Matheis, President  
Douglas J. Reinhart, Vice President  
Steven E. LaMar  
Peer A. Swan  
John B. Withers

## General Manager

Paul A. Cook

## Prepared by:

Irvine Ranch Water District  
Finance Department

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## Financial Section

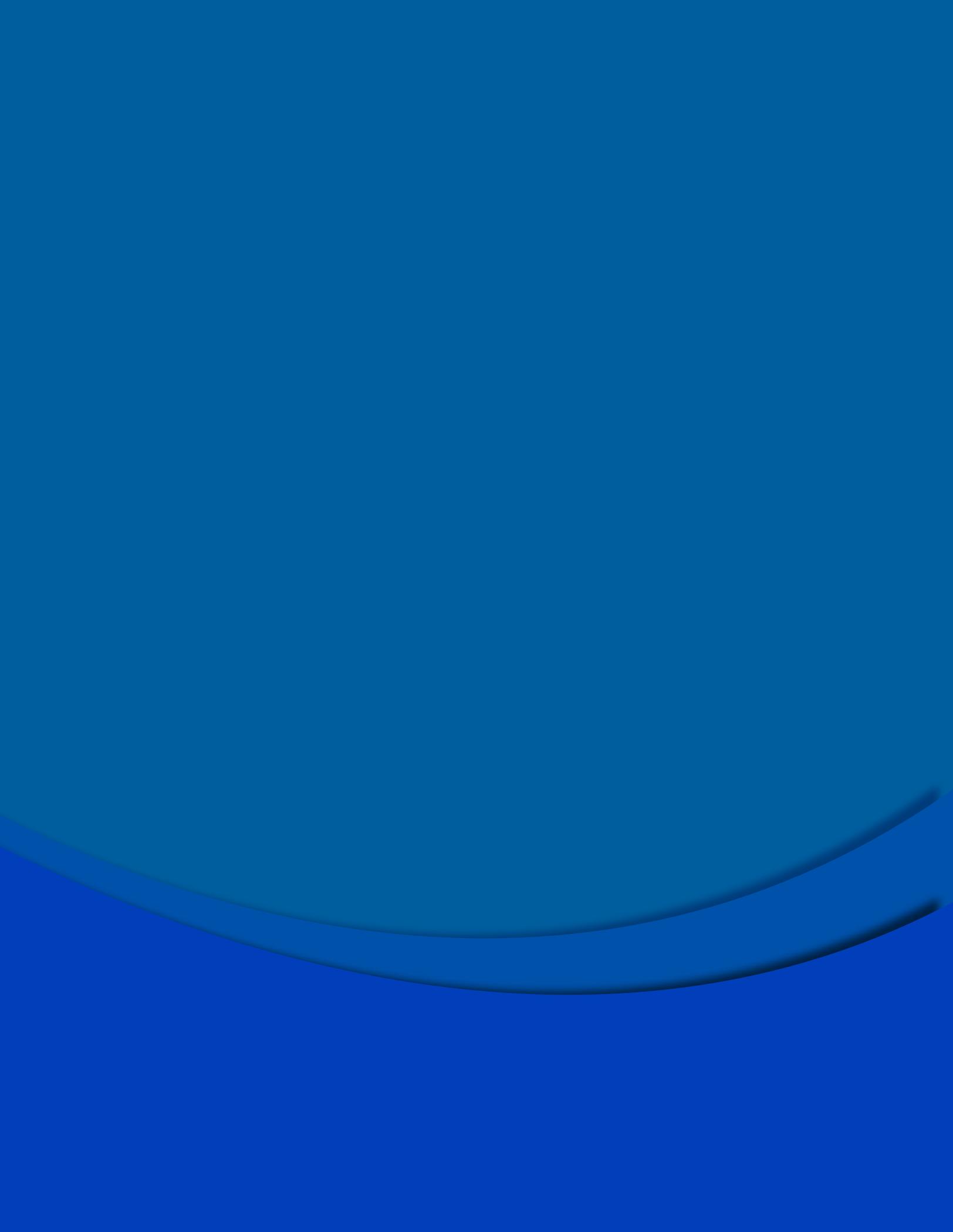
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# INTRODUCTORY SECTION





Irvine Ranch  
WATER DISTRICT

December 12, 2016

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, 2016. 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 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, 2016 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, 2016 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 22 years. The District is a leader in developing and implementing resource management initiatives such as water recycling, urban runoff and water conservation. 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 population served is 390,000 through approximately 109,000 water and over 103,000 sewer service and recycled water connections. The number of service connections has increased by approximately 17% 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 and various sewage treatment alternatives 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, and replace facilities, while maintaining competitive rates now and in the future.

## People

The District employs approximately 370 staff who are responsible for 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 11 years.



**Sand Canyon Headquarters Building**

## Services

The District is functionally organized into four core service areas:

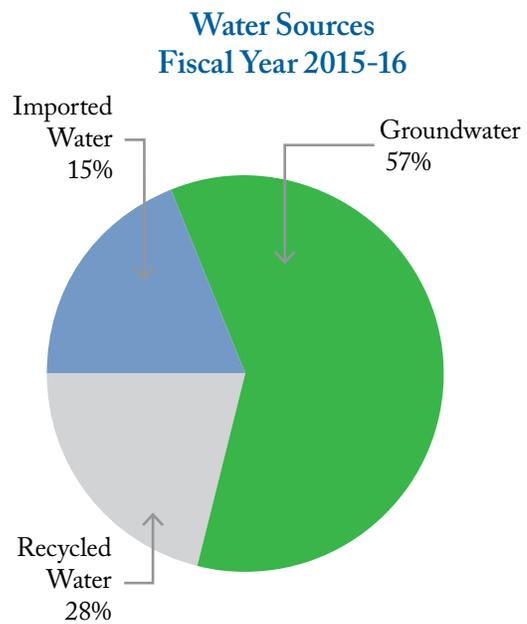
### Drinking or “Potable” Water System

For many years, the District received the majority of its drinking water from imported sources. To minimize its 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).

The District also operates and treats groundwater produced from the Deep Aquifer Treatment System (DATS), Irvine Desalter Project (IDP), and Wells 21 and 22 Desalter Facility. In addition, the District operates wells in the Lake Forest area, which is outside of the current boundaries of OCWD. In Fiscal Year (FY) 2015-16, local groundwater accounted for 57% of its total water supply.

Groundwater currently is 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 15% of its water supply in FY 2015-16 from the Metropolitan Water District, the region's 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, which is transported approximately 400 miles from Northern California.



### Recycled Water System

The District treats sewage to provide water for irrigation, commercial, industrial and agricultural purposes which 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 standards at the Michelson Water Recycling Plant and the Los Alisos Water Recycling Plant, which have the combined capacity to produce nearly 35.5 million gallons of recycled water per day of which the District currently utilizes approximately 23 million gallons per day.

Once treated, the recycled water is used throughout the service area, which in FY 2015-16 accounted for approximately 28% of the District's total water supply. Approximately 85% 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 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, including a majority ownership in the Irvine Lake, a 25,000 acre-foot reservoir. In total, the District has approximately 5,400 acre feet of recycled water storage capacity.

When viewing District-wide water consumption from all systems for FY 2015-16, groundwater provided 57% of the District's consolidated water demand with recycled water and imported water providing 28% and 15%, respectively.

## 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 treatment plants or to capacity owned at the Orange County Sanitation District. In FY 2015-16, the District treated approximately 80% of its sewage while the remainder of the sewage collected by the District was diverted to the Orange County Sanitation District treatment facilities. The District plans to expand its treatment capacity to serve its growing population as needed. 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 the quality of water within the San Diego Creek watershed. In the early 1990s, the District reconstructed wetlands at the San Joaquin Marsh where natural biological processes remove a substantial amount of the pollutant load from San Diego Creek before it reaches environmentally sensitive Upper Newport Bay. The District obtained special legislation allowing it to add urban runoff treatment to its services, and operates a regional urban runoff treatment project known as the Natural Treatment System. As of June 30, 2016, the Natural Treatment System consists of 27 wetland treatment sites located throughout the District's service area with several more currently under construction.



**Aerial view of San Joaquin Marsh**

## Drought and 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. As a result, the District has been well positioned to handle the effects of the current drought.

On April 1, 2015, Governor Brown issued an Executive Order requiring the State Water Resources Control Board (SWRCB) to adopt a regulation mandating a 25% reduction in statewide urban potable water use from 2013 levels.



**2016 Drought-Friendly Garden Tour**

Water agencies were assigned specific reduction targets based on 2013 usage. While some agencies were assigned targets of up to 36%, IRWD was required to achieve a 16% reduction. The District utilized the effectiveness of its rate structure, combined with increased outreach and expanded conservation programs to meet its mandated reduction in a financially sustainable way. 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. This structure, which the District updated in 2015, is recognized as a model for other agencies to emulate. The District's customers have one of the lowest residential gallons per capita per day (gpcd) rates in California. In 2015-16 the District's residential water use averaged 64 gpcd which was 44% lower than the statewide average of 114 gpcd.

On May 18, 2016, the State Board adopted a revised regulation extending the term of the regulation until January 2017. This extension was adopted based on continued uncertainty over long-term water supplies in California. The revised regulation incorporates a new methodology for calculating water reduction targets. Under the new methodology, agencies can self-certify the availability of supplies to meet projected demands, assuming another three dry years. The percentage gap between an agency's supplies and

demands in the third year becomes the water agency's revised conservation target. Agencies were required to submit their respective self-certifications, with documentation, by June 22, 2016. IRWD submitted its self-certification which demonstrated the sufficiency of available supplies to meet projected demands. Therefore, IRWD's mandatory conservation target was reduced to zero percent, retroactive to June 1, 2016.

Although IRWD's mandatory target has been reduced to zero percent, the state is still in a declared drought emergency and is calling for additional voluntary conservation. In response, IRWD is continuing to maintain and further implement enhanced conservation and outreach programs, supported by the effectiveness of its rate-structure.

The District has also led the use of recycled water beginning in the late 1960s and presently serves over 5,400 sites, with more than 26,000 acre feet of recycled water in FY 2015-16 representing 28% of the District's total water supply. The use of recycled water has helped the District achieve its conservation targets and has reduced its need to import more expensive potable supplies.

The District's Water Use Efficiency Plan provides a comprehensive strategy that includes environmental considerations and also 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 demand 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. The Board is regularly updated on the effectiveness of the Plan and funding needs.

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 at the lowest possible cost.



**IRWD Drought Expo**

## **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 conservation and drought response, recycled water, and groundwater management 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 WaterReuse Association and the California Special District Association.

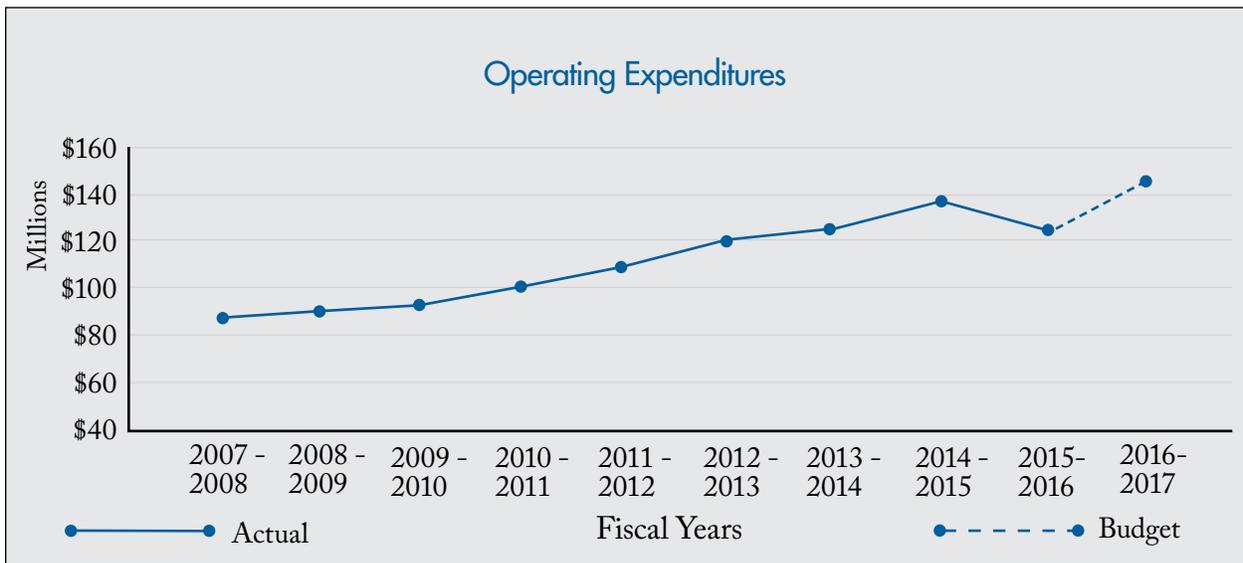
## Infrastructure Assets

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 2007 to 2016.

Infrastructure Assets		
	2007	2016
<b>Potable System</b>		
Miles of Water Line	1,090	1,760
Number of Storage Tanks	37	36
Maximum Storage Capacity (acre feet)	456	456
Number of Pumping Stations	40	42
Number of Wells	24	27
Well Production Capacity (cfs)	109	128
Water Banking Storage Capacity (acre feet)	-	126,000
<b>Non-Potable and Recycled Systems</b>		
Miles of Recycled Line	367	525
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	18	20
Number of Wells	5	5
Well Production Capacity (cfs)	9.8	9.8
<b>Sewer System</b>		
Miles of Sewer Line	809	1,070
Number of Lift Stations	16	14
Treatment Plants	2	2
Treatment Capacity (mgd)	25.5	35.5
Sewage Flows to Michelson Plant	62%	68%
Sewage Flows to Los Alisos Plant	24%	12%
Sewage Flows to Orange County Sanitation District	14%	20%
1 acre foot = 325,900 gallons		
cfs = cubic feet per second		
mgd = millions gallons per day		

## Financial Plan

Each year, the Board approves an annual operating budget. 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 thru FY 2015-16 as well as the Board approved operating budget for FY 2016-17. 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 2016-17 budget increased to \$146.9 million from \$140.4 million in FY 2015-16, or 4.7%. The primary reasons for the increases were labor and associated benefits from additional positions necessary to support new or planned operating facilities, labor rate growth, increases in the cost of water due to anticipated rate increases from outside agencies, higher operating and maintenance costs associated with additional facilities coming on line and increased expenditures for conservation programs and rebates to strengthen conservation efforts within the District.

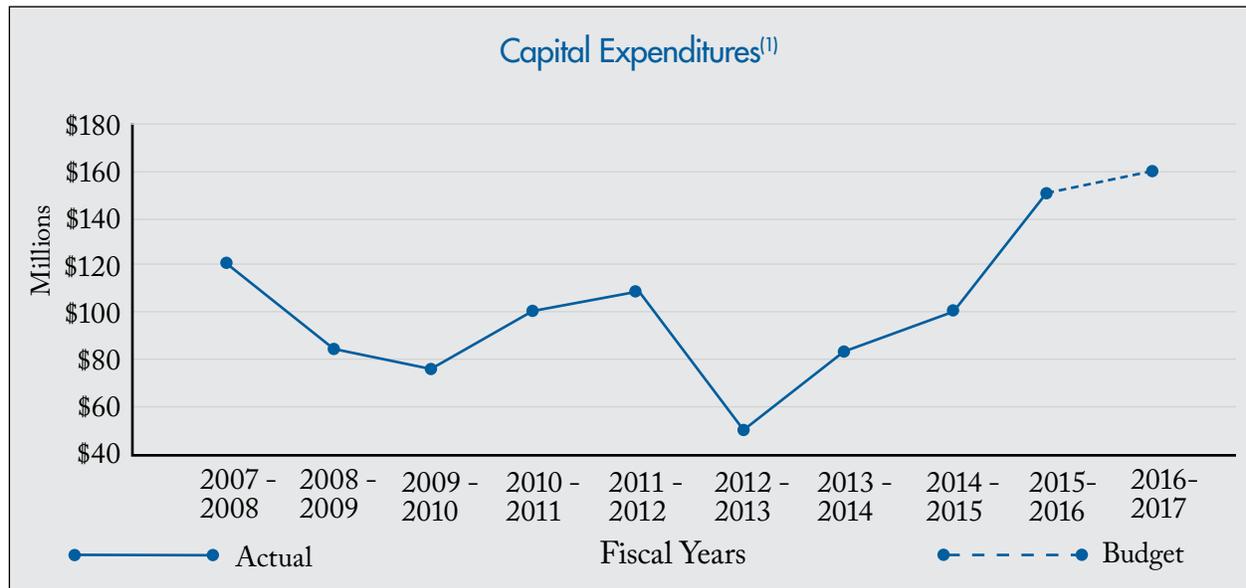


The Board also approves an annual capital budget based on new, enhancement and replacement infrastructure needs. Below are the actual capital expenditures thru FY 2015-16. The reduced spending in 2012-13 from prior years represents the District’s completion of several projects and the subsequent design and construction for two new key projects, the MWRP Biosolids and Energy Recovery Facilities and the Baker Water Treatment plant, both of which began construction in FY 2013-14. For FY 2016-17, the Board approved capital budget was \$160.2 million. Many capital budget projects extend beyond one fiscal year.



**Biosolids and Energy Recovery Facilities Project**

The District’s capital program currently includes more than 500 active and planned projects with expenditures estimated at more than \$600 million over the next 20 years.



(1) Actual capital expenditures excluding overhead, intangibles and capitalized interest.

## User Rates & Charges

User rates and charges are primarily used for funding 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 swings. 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 benefit from 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 the District’s water supplies while the fixed service charge funds the fixed operational and maintenance expenses of the District. For FY 2015-16, the District’s water fixed service charge was \$10.30 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 2015-16, the monthly fixed service charge includes a user enhancement and replacement component of \$0.70 and \$1.45, 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 to the right illustrates the four-tier structure that reflects the increased cost associated with usage in the higher tiers.

### FY 2015-16 Residential Rate Structure – Potable Water (Commodity Charge)\*

Tier	Percent of Estimated Customer Need	Cost per ccf
Low Volume	0 – 40%	\$1.11
Base Rate	41 – 100%	\$1.62
Inefficient	101 – 130%	\$3.92
Wasteful	131% +	\$14.53

As of June 2016, approximately 80% of the District's customers were within the first two tiers and approximately 90% of customers fell within the District's first 3 tiers. IRWD residential bills are consistently among the lowest in Orange County.

### Sewer Rates

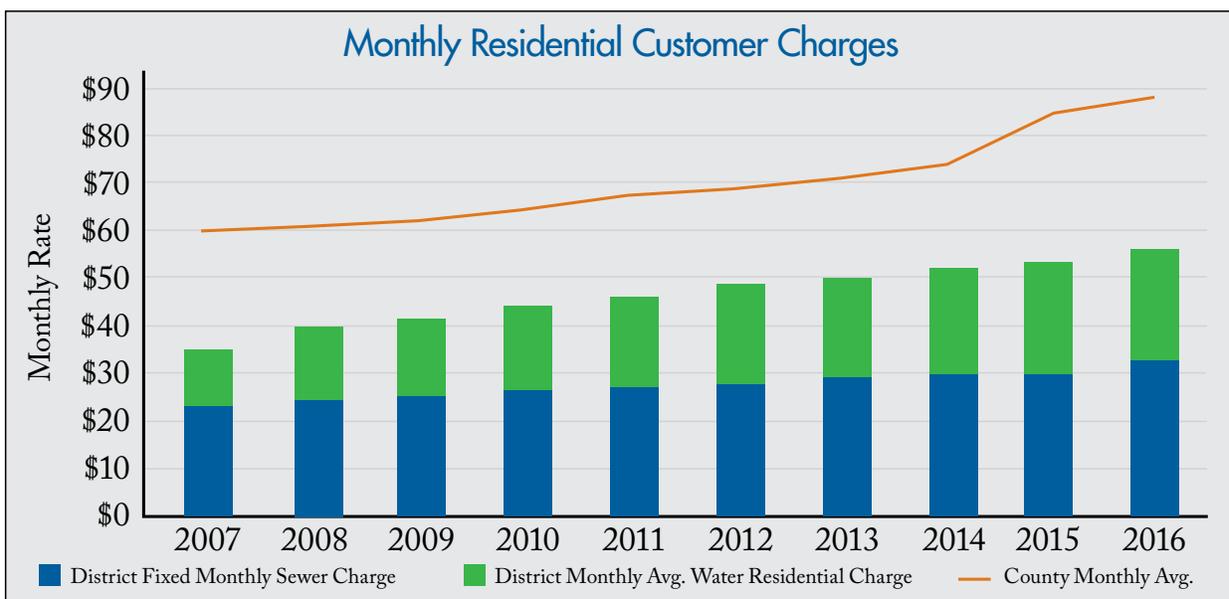
The District's sewer rates are also among the lowest in Orange County, with a fixed monthly service charge of \$24.05 in FY 2015-16 for a typical residential customer that covers the collection and treatment of sewage. This monthly service charge includes a user enhancement and replacement component of \$0.70 and \$7.35, 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 \$7.35 includes \$2.30 to fund the construction of the MWRP Biosolids and Energy Recovery Facilities discussed in more detail under *Major Initiatives – Expanded Water Recycling Options and System Reliability*. These components are projected to grow annually.

One ccf (100 cubic feet) = 748 gallons

\*This rate structure is for residential detached dwelling units in the Irvine Ranch Rate Area. Customers of the former Los Alisos Water District are on a separate rate structure to reflect the cost of water.

### Historic Rate Trends

The following chart reflects the annual "base rate" charge for an average customer's water and sewer service through FY 2015-16. 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 perhaps 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 over 3.1 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 Taco Bell Corporation, Allergan Inc., Oakley and Broadcom Corporation. 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.

During FY 2015-16, the District continued to expand its operating facilities to accommodate approximately 4,000 new water and sewer service connections constructed within District boundaries. There remains about 20% of future development, including the Northern Sphere area of Irvine, Lake Forest and property from two de-commissioned military bases. Needs of these areas have been included in the planning and facilities included in the capital budget.

The assessed value of land within the District's service area has grown significantly in the last decade from \$31.4 billion in 2007 to more than \$51.3 billion in 2016, 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 shifted substantial amounts of property tax revenue to the State. In FY 2009-10, the State borrowed approximately \$2 million from the District which was repaid in June 2013. Under Proposition 1A, the State can only exercise its borrowing right one more time prior to 2019.

### Drought

As discussed in more detail in Drought and Water Use Efficiency, in 2016, the State Water Resources Control Board mandated that the District achieve a 16% reduction from its 2013 base usage. As customers decreased their consumption, there was a corresponding decrease in District revenues. The District is well positioned to sustain the reduction in revenues and meet conservation targets with minimal impact on net revenues due to its rate structure which effectively splits costs into variable and fixed rate components. The decreased consumption in FY 2015-16 was offset by a decrease in related variable costs while the fixed rate component covered the fixed operating and maintenance costs. As a result, the District did not experience a net revenue shortfall to cover expenses as a result of the decreased consumption.

## Financial Planning & Budgeting

### Short-Term

The Board of Directors approves operating and capital budgets annually 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 2014-15, the combined water and sewer user enhancement/replacement fees were \$8.90 per month. For FY 2015-16, the combined water and sewer user enhancement/replacement fees are \$10.20 per month. The increase is part of a planned approach to avoid significant rate fluctuations resulting from future major capital initiatives.

Over time, the District has evolved from a newly developing area towards being 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 contributed \$32.1 million to new capital in FY 2015-16 will decline 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 2011, the District initiated a strategic process to review 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 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 from 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 2 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 in FY 2014, 2015, and 2016 the District made additional contributions of \$2.2 million, \$2.1 million, and \$1.9 million, respectively. As of June 30, 2016, the fair market value of the assets in the Pension Benefits Trust was approximately \$47.1 million. As of June 30, 2016, the assets were invested in the Vanguard Institutional Index Fund, Vanguard Extended Market Index Fund, Vanguard Developed Market Index Fund, Metropolitan West Total Return Bond Fund, Baird Core Plus Bond Fund, Vanguard High-Yield Corporate Fund and Federated Government Obligations Money Market Fund.

Under GASB 68, implemented for FY 2015, the District's pension plan was fully funded as of June 30, 2015. As of June 30, 2016, the District had a minimal net pension liability of \$1.9 million, or a funded ratio of 99.2%. Additional information on the District's net pension asset/liability can be found in Note 13 of the Notes to the Basic Financial Statements.

## 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 while meeting required expenditures in conformance with all applicable State laws, the District's investment policy, and prudent cash management principles.

For FY 2015-16, 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. government agency notes, U.S. government agency discount notes, the State-managed Local Agency Investment Fund and local government investments. The annual return on all of the District's cash investments in FY 2015-16 was approximately 0.63%. Including real estate investments, the weighted average rate of return was 3.51% for the same period.

At June 30, 2016, the District's cash, investments and installment sale agreement assets totaled approximately \$235.5 million. Cash balances are allocated to various funds including the Replacement Fund, New Capital Fund, Capital Enhancement Fund, Construction Fund, Debt Service Fund and others. No unspent bond proceeds were available at year end.

## 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, 2016, the District owns or has an interest in five properties with an approximate market value of \$199.0 million. The real estate investments have a weighted average return (on original cost) for FY 2015-16 of 13.9%. Net revenues of \$8.7 million generated in FY 2015-16 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, 2016, the District's debt portfolio included fixed rate debt at 42.1%, synthetically fixed (hedged) variable rate debt at 35.5% and unhedged variable rate debt at 22.4%, resulting in an average all-in cost of debt of approximately 3.42% for the year.

The District has primarily used General Obligation (GO) bonds and Certificates of Participation (COPs) to fund its capital facilities. As of June 30, 2016, there were eight outstanding GO bond issues consisting of \$316.2 million in variable rate mode and \$175.0 million in fixed rate mode (excluding any unamortized premium or discount). As of June 30, 2016, the District also had one outstanding COPs issue with a balance of \$54.7 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, including user rates of the District.

The COPs issue is secured by the net revenues of the overall District. The District is required under some of its debt covenants to collect revenues sufficient to provide net revenues equal to 125% of senior debt service payable during the fiscal year.

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 Board adopted a policy to maintain a target amount of investment assets equal to at least 75% of the District's outstanding unhedged variable rate debt. In addition, the District began an interest rate swap program under which \$130 million notional amount of LIBOR-based fixed payer swaps were executed. These interest rate swaps have allowed the District to limit the interest rate risk exposure on approximately \$194 million (or 61.4%) of its variable rate debt to approximately 4.01% (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 2015-16, the Federal subsidy payments were cut by 6.8% 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 4.46%.

## **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, routine 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.

## **Major Initiatives**

The District's major initiatives during FY 2015-16 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 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 diversifying 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 Water Bank). The District's Water Bank is situated on groundwater recharge lands that overlie the regional Kern County groundwater basin. The purpose of the 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 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 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 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 Water Bank that are necessary to divert water from an adjacent canal into the ponds. Groundwater wells have been constructed on the Strand Ranch property and additional recovery wells are currently being constructed on the Stockdale West property. The District, in partnership with Rosedale and others, are also constructing additional wells that will increase the ability to recover water from the Water Bank during peak summer demand periods. The District has secured water from a number of sources for recharge at the Water Bank.

The District has entered into agreements with Metropolitan Water District of Southern California (MWD) which allows it to transfer water from the 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 36,900 acre feet of water to the Water Bank through its water supply partnerships. The District has returned its partner's share of the water and holds approximately 22,000 acre feet of water in storage for future use. The District is currently pursuing additional potential water supply opportunities for diversion into the Water Bank.

### **Water Rights**

The District also owns property with rights to State Water Project water which can be stored in the 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 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.

As of June 30, 2016, the District has purchased agricultural land (PVID Properties) in Riverside County, California. The PVID Properties are located within Palo Verde Irrigation District (PVID), which has first priority rights on the Colorado River. Approximately 273 acres of the land are included in a 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). In the near term, the District expects to lease the PVID Properties to tenant farmers for agricultural uses. The District plans to work with MWD and the Municipal Water District of Orange County (MWDOC) in the future to develop mutually beneficial arrangements through which the District could receive increased water supply reliability during periods of drought or supply interruptions in consideration for the water conserved on the District's PVID Properties.

### **Baker Water Treatment Plant**

The Baker Water Treatment Plant (WTP), which is currently under construction, is anticipated to be completed and operational by the end of calendar year 2016. The Baker WTP will produce approximately 28 million gallons per day of drinking water and will treat imported water from MWD and local water from Irvine Lake. The Baker WTP will utilize microfiltration and ultraviolet disinfection as the primary treatment processes. Although the Baker WTP will be owned and operated by the District, partial capacity in the plant is being purchased by four other water agencies located in southern Orange County. The Baker WTP will provide an operational source of supply to the project participants and, in the event of a short-term water shortage emergency, can provide regional water reliability to other neighboring southern Orange County water agencies. The project cost is estimated at approximately \$106 million, with IRWD owning approximately 24% of the total plant.



### **Baker Treatment Plant**

#### **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 recycle more sewage flows at MWRP. 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 evaluating funding alternatives for the reservoir expansion.

## Expanded Water Recycling Options 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, and
- Lower total cost.

In addition to the projects identified above, the District evaluated alternative approaches to recover the solids and biogas generated by its water recycling facility. 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 to thicken, digest, dewater, and dry biosolids to allow safe reuse of pellets as either fertilizer or e-fuel, which will reduce the District's overall treatment costs.



**Biosolids and Energy Recovery Facilities Project**

The process also allows for the conversion of biogas into energy thereby further reducing the District's dependency and costs from its third party electricity provider. The construction of the MWRP Biosolids Handling and Energy Recovery Facilities is anticipated to be completed in 2018 at an estimated project cost of \$212 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. Today, the District's water efficiency and environmental programs provide a key Best Management Practice under the California Urban Water Conservation Council's memorandum of understanding dedicated to increasing efficient water use statewide. From student water and science education programs to resident tours, IRWD is dedicated to educating and fostering an appreciation for water and the environment which are both vital resources.

Community water education and an awareness of water use efficiency begins 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 local students. The partnership with the Discovery Science Foundation allows the District to effectively reach students in its service area with innovative and informative water education. Through these programs, the District teaches the next generation of community members to be good stewards of its precious water and environmental resources.

The District's San Joaquin Marsh Campus, which houses the IRWD Learning Center and Visitors Center, is the embodiment of the District's dedication to lifelong water education. The location of the Campus at the San Joaquin Marsh provides a wide variety of educational venues and teaching opportunities utilizing the District's Natural Treatment System, the Butterfly Garden, and the San Diego Creek. The Learning Center is a dedicated facility for water education in our community. The Learning Center features two state-of-the-art classrooms and a patio that can be utilized as an outdoor learning facility. 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 Visitor's Center at the historic Irvine Ranch Marsh House provides informative self-guided tours on the District's environmental and water use efficiency efforts and is open to the public seven days a week.

These programs and the District Marsh Campus provide the backbone of the District's community education and outreach efforts. In addition, the District offers water use efficiency workshops and webinars; customized in-class lectures for high school and college classes, and customized educational tours for community organizations in its service area.

In addition to already established water use efficiency community outreach efforts, the District has responded to the statewide drought by offering new and effective outreach programs designed to educate customers about the drought and what they can do to decrease their water use. The outreach campaigns, which effectively increased awareness and participation in conservation programs, were key to IRWD's success in meeting its state-mandated potable water conservation target of 16%. The District's key campaigns targeted reductions in outdoor water use. A "Brown is the New Green" campaign encouraged single family homeowners to cut outdoor water use in half and to let lawns go brown. After customers had



### Community Outreach Messaging

significantly reduced outdoor watering, the drought outreach program progressed to a new campaign called "Color Your World" to encourage drought tolerant landscaping and to promote the District's turf removal rebate program. To support this effort, the District held a series of 21 workshops to teach customers about drought tolerant landscaping and efficient irrigation techniques, launched an enhanced water use efficiency resources website, and held two highly attended community-wide events. IRWD now has two Drought Tolerant Demonstration Gardens that display over 80 different types of drought tolerant plants and provide practical information for customers to use when redesigning their home landscapes with water efficient plants. The IRWD Recycled Water Fill Station allows customers that do not yet have access to recycled water the ability to use this water source for outdoor irrigation purposes.

In 2016, the District implemented a new logo. The logo has long been used for District communications, outreach and education materials. The updated logo design acknowledges the District's history and reflects its current services and programs.



## 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, 2015. 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 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

Vice President and Director

Director

Director

Director

Mary Aileen Matheis

Douglas J. Reinhart

Steven E. LaMar

Peer A. Swan

John B. Withers

### Executive Management

General Manager

Executive Director of Finance & Administration

Executive Director of Operations

Executive Director of Engineering & Water Quality

Executive Director of Water Resources & Policy

Director of Human Resources

Director of Water Resources

Director of Public Affairs

Director of Administrative Services

Director of Treasury and Risk Management

Paul A. Cook

Cheryl L. Clary

Patrick O. Shields

Kevin L. Burton

Paul A. Weghorst

Jenny L. Roney

Fiona M. Sanchez

Beth M. Beeman

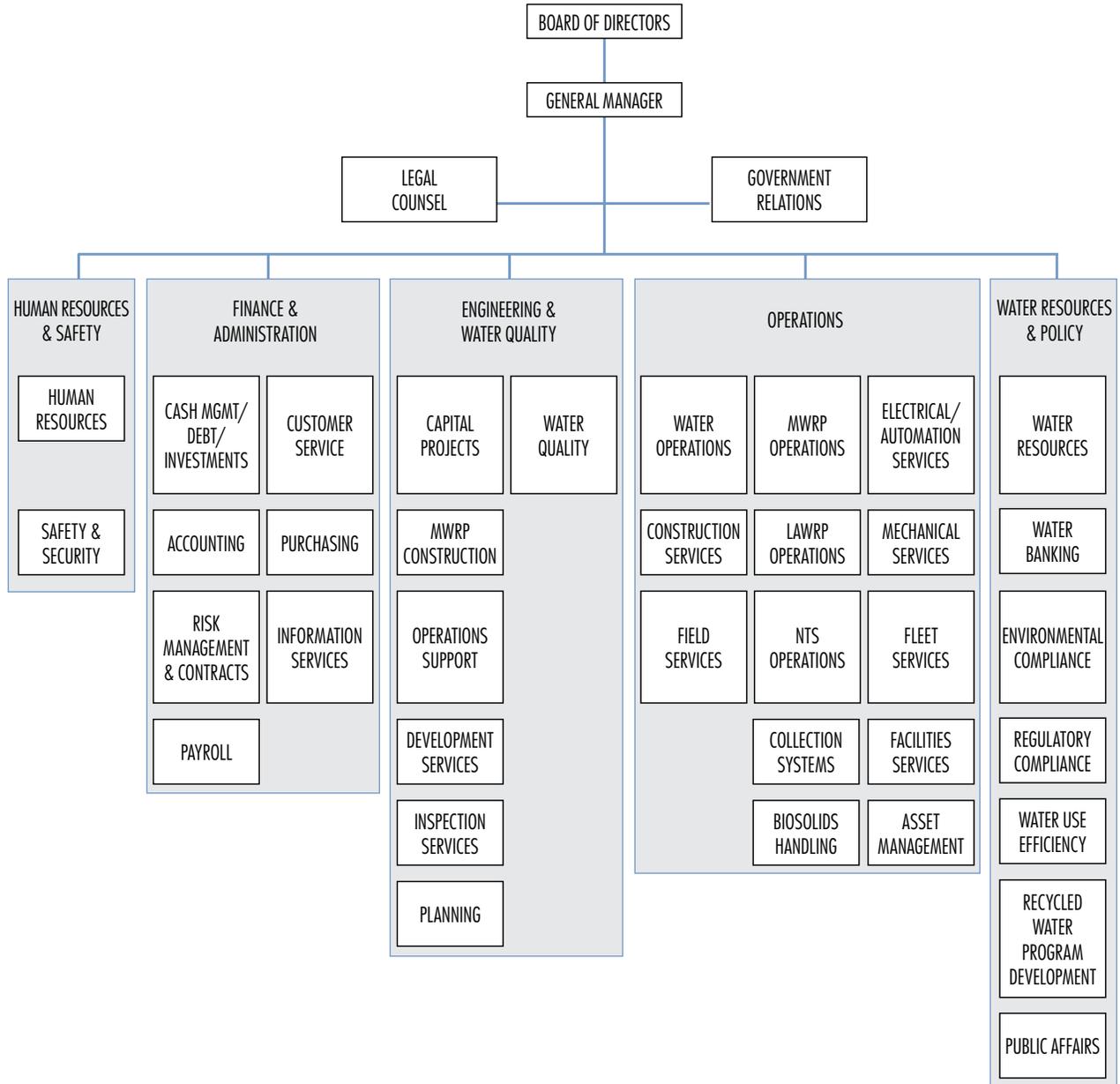
Tony J. Mossbarger

Robert C. Jacobson

# Irvine Ranch Water District

## Organizational Chart (By Function)

### Fiscal Year 2015-16





Government Finance Officers Association

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**Irvine Ranch Water District  
California**

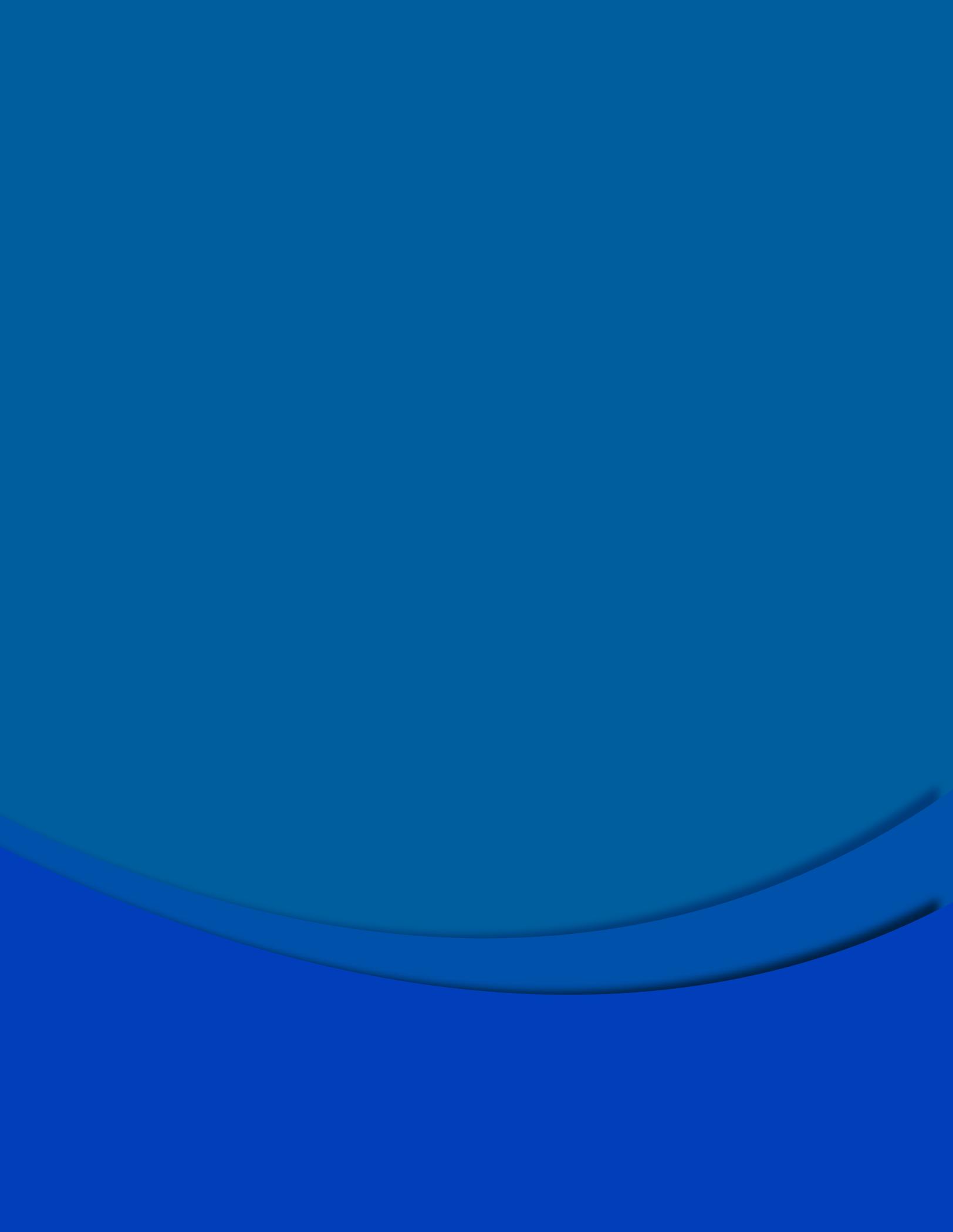
For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2015**

Executive Director/CEO

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# FINANCIAL SECTION



# Financial Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2016

Board of Directors  
Irvine Ranch Water District  
Irvine, California

## **Independent Auditor's Report**

### **Report on the Financial Statements**

We have audited the accompanying financial statements of each major fund, and the aggregate remaining fund information of the Irvine Ranch Water District, as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the District's basic 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.

### ***Auditor's Responsibility***

Our responsibility is to express opinions 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 auditor's 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.

### ***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of each major fund, and the aggregate remaining fund information of the Irvine Ranch Water District, as of June 30, 2016, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Emphasis of Matter***

As described further in Note 18 to the financial statements, during the year ended June 30, 2016, the District implemented GASB Statement No. 72. Our opinion is not modified with respect to this matter.

The financial statements of the year ended June 30, 2016 reflect certain prior period adjustments as described further in Note 18 to the financial statements. Our opinion is not modified with respect to this matter.

### **Report on Summarized Comparative Information**

We have previously audited Irvine Ranch Water District's financial statements, and we expressed an unmodified audit opinion on those financial statements in our report dated December 1, 2015. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2015 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 the *management's discussion and analysis* and *pension schedules* 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.

**Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated December 5, 2016, 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 "David Lan CPA". The signature is written in a cursive style.

Irvine, California  
December 5, 2016

## 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, 2016. 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 \$1,578.3 million (net position), consisting of \$1,178.5 million in net investment in capital assets, \$221.5 million restricted for water services and \$178.3 million restricted for sewer services. This is an increase of \$223.6 million or 16.5 percent over the prior fiscal year net position of \$1,354.7 million.
- Total assets are \$2,188.2 million, an increase of \$207.9 million or 10.5 percent over the prior fiscal year. Other noncurrent real estate investments assets increased \$155.9 million primarily due to the new accounting standard which requires real estate investments to be reflected at fair market value. Capital assets increased due primarily to 2 major projects which were funded mainly with cash.
- Total deferred outflows of resources are \$49.7 million, an increase of \$6.4 million or 14.8 percent over the prior fiscal year. This is due primary to a decrease in the accumulated fair market value of swaps.
- Total deferred inflows of resources decreased \$10.2 million over the prior year, due primarily to the cumulative differences between projected and actual earnings on the pension investments as well as changes in actuarial assumptions.
- During 2016, the District funded \$1.9 million in excess of its annual required contribution to the Irvine Ranch Water District Post-Employment Benefits Trust (Pension Benefits Trust) in order to reduce its unfunded pension liability. The Pension Benefits Trust was established in June 2013 to assist in funding the District's CalPERS unfunded liability. The trust provides the District with an alternative that allows for investment by a professional fund management team selected and monitored by the District. Future excess contributions will be transferred to CalPERS at the District's discretion. As of June 30, 2016, the District had a \$1.9 million net pension liability which is 99.2% fully funded. For more detail, see Note 13 of the Notes to the Basic Financial Statements.
- Total debt is \$553.1 million, a decrease of \$19.7 million or 3.4 percent over the prior fiscal year. The decrease in overall debt is due primarily to \$19.3 million of principal payments during the current fiscal year.
- Total revenues are \$218.4 million, an increase of \$21.5 million or 10.9 percent over the prior fiscal year. Operating revenues were higher by \$11.5 million due to Board approved rate increases resulting from increased water and sewer production charges from third parties that were passed through to customers as well as customer growth during the year. Non-operating revenues increased \$10.0 million due to the implementation of a new accounting standard which requires real estate investments to be reflected at fair market value as well as higher 1 percent property tax revenue associated with higher assessed property valuations in the District's service area.
- Total expenses are \$198.3 million, a decrease of \$10.3 million or 4.9 percent over the prior fiscal year. This is due primary to a reduction of \$11.0 million in the cost of handling, treatment, and disposal of sewage solids residuals sent to the District's third party provider (the Orange County Sanitation District).
- Capital contributions are \$53.3 million, an increase of \$10.7 million or 25.1 percent over the prior fiscal year due primarily to increased development activity within the District resulting in \$8.0 million of donated facilities from developers.

## 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, the Statement of Cash Flows, Statement of Fiduciary Net Position, and Statement of Changes in Fiduciary Net Position) 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 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.

**Fiduciary Fund** is used to account for resources held for the benefit of parties outside the government. The District’s fiduciary fund consists of the Pension Benefits Trust fund, which is maintained to account for assets held by the Pension Benefits Trust in a trustee capacity. The Pension Benefits Trust was established to assist in funding the CalPERS unfunded liability, providing the District with an alternative to CalPERS that allows for investment by a professional fund management team selected and monitored by the District, with future excess contributions transferred to CalPERS at the District’s discretion.

**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, and liabilities. The net position represents the District's net worth including, but not limited to, capital contributions and investments in capital assets. A condensed summary of the District's total net position at June 30 is set forth below:

**Table 1 - Summary of Net Position (in millions)**

	2016	2015	Increase/(Decrease)	
			Amount	Percentage
<b>Assets</b>				
Current and other assets	\$ 235.8	\$ 270.7	\$ (34.9)	-12.9%
Capital assets, net	1,731.6	1,647.4	84.2	5.1%
Other noncurrent assets	220.8	62.2	158.6	255.0%
<b>Total assets</b>	<b>2,188.2</b>	<b>1,980.3</b>	<b>207.9</b>	<b>10.5%</b>
<b>Deferred Outflow of Resources</b>				
Deferred refunding charges	1.2	1.4	(0.2)	-14.3%
Accumulated decrease in fair value of swap agreements	41.2	35.3	5.9	16.7%
Pension contributions	6.9	6.6	0.3	4.5%
Pension actuarial	0.4	-	0.4	100.0%
<b>Total deferred outflow of resources</b>	<b>49.7</b>	<b>43.3</b>	<b>6.4</b>	<b>14.8%</b>
<b>Liabilities</b>				
Current and other liabilities	65.4	51.5	13.9	27.0%
Long-term liabilities	589.8	602.8	(13.0)	-2.2%
<b>Total liabilities</b>	<b>655.2</b>	<b>654.3</b>	<b>0.9</b>	<b>0.1%</b>
<b>Deferred Inflows of Resources</b>				
Pension actuarial	4.4	14.6	(10.2)	-69.9%
<b>Net Position</b>				
Net investment in capital assets	1,178.5	1,074.6	103.9	9.7%
Restricted for water services	221.5	148.6	72.9	49.1%
Restricted for sewer services	178.3	131.5	46.8	35.6%
<b>Total net position</b>	<b>\$ 1,578.3</b>	<b>\$ 1,354.7</b>	<b>\$ 223.6</b>	<b>16.5%</b>

As shown in Table 1, the District's total assets increased \$207.9 million or 10.5 percent. Cash was used to fund capital assets during the year. Other noncurrent assets increased \$158.6 million primarily as a result of the implementation of a new accounting standard, which requires real estate investments to be reflected on the financial statements at fair market value. The cumulative real estate investment value increased \$155.9 million to reflect the change from cost basis to fair market value. The fair market value at the end of fiscal year 2015 is reflected as a prior period adjustment in 2016 as required under the new accounting standards. The fair market value of real estate assets increased \$5.6 million from \$193.2 million in the prior fiscal year to \$198.8 million in the current fiscal year. Additional information on the District's real estate investments can be found in Note 7 of the Notes to the Basic Financial Statements.

The District's deferred outflows of resources increased \$6.4 million or 14.8 percent. This is due primary to a \$5.9 million reduction in the accumulated fair value of swaps which increased from a negative \$35.3 million to a negative \$41.2 million as the assets are reflected at fair market value. The change also includes a \$0.4 million increase in the District's pension liability for differences between expected and actual actuarial experiences amortized to pension expense over the next 4 years. In addition, the

## MANAGEMENT’S DISCUSSION AND ANALYSIS (Continued)

District contributed \$0.3 million more in pension contributions made to the CalPERS and the Pension Benefits Trust from \$6.6 million in the prior fiscal year to \$6.9 million in the current fiscal year. These increases were partially offset by a decrease of \$0.2 million from the amortization of deferred refunding charges of general obligation bonds and certificates of participation from \$1.4 million in the prior fiscal year to \$1.2 million in the current fiscal year which represent the difference between the carrying value of refunded debt and the reacquisition price.

The District’s total liabilities increased \$0.9 million or 0.1 percent from \$654.3 million in the prior fiscal year to \$655.2 million in the current fiscal year. Accounts payable increased \$11.0 million primarily relating to payments due the District’s third party sewer service provider (Orange County Sanitation District) and various other capital project vendors for the District’s major capital projects. The increase was partially offset by a reduction of \$13.0 million in the long-term liabilities associated primarily with principal payments on the District’s debt during the current fiscal year.

The District’s deferred inflows of resources decreased \$10.2 million or 69.9 percent from \$14.6 million in the prior fiscal year to \$4.4 million in the current fiscal year. This is due primary to a decrease of \$13.4 million for cumulative differences between projected and actual earnings on the pension plan investments, partially offset by an increase of \$3.2 million for changes in pension actuarial assumptions. During the current fiscal year, CalPERS increased their discount rate assumption from 7.50 percent in the prior fiscal year to 7.65 percent in the current fiscal year which partially contributed to an increase of \$3.2 million at the end of the current fiscal year. Additional information on the District’s deferred inflows of resources can be found in Note 13 of the Notes to the Basic Financial Statements.

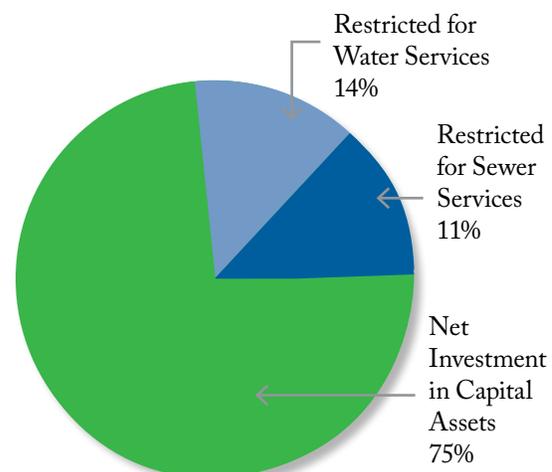
Net position at end of the current fiscal year increased from \$1,354.7 million in the prior fiscal year to \$1,578.3 million in the current fiscal year, an increase of \$223.6 million or 16.5 percent in the District’s overall financial condition.

Net position consists of net investment in capital assets and restricted net position. Net investment in capital assets reflects capital assets, net of accumulated depreciation/amortization and the liabilities attributable to their acquisition, construction, or improvement of those assets. Net investment in capital assets was \$1,178.5 million or 74.7 percent of total net position, an increase of \$103.9 million or 9.7 percent from the prior fiscal year.

Several major District capital projects contributed to the increase, including the MWRP Biosolids and Energy Recovery Facilities which will reduce the District’s overall sewage treatment costs as well as provide other resource recovery benefits and the purchase of agricultural land in Riverside County, CA which has first priority water rights on the Colorado River and are part of the District’s plan to enhance its water supply reliability. These projects account for approximately 65 percent of the increase.

Restricted net position for water services were \$221.5 million or 14.0 percent of total net position. Restricted net position for sewer services were \$178.3 million or 11.3 percent of total net position. Restricted net positions are externally restricted by legislation which imposes legally enforceable requirements that its assets be used only for the specific purposes for which it was formed.

Net Position at June 30, 2016



## 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:

	2016	2015	Increase/(Decrease)	
			Amount	Percentage
<b>Operating Revenues</b>				
Water sales and service charges	\$ 76.7	\$ 70.1	\$ 6.6	9.4%
Sewer sales and service charges	67.7	62.8	4.9	7.8%
Total operating revenues	144.4	132.9	11.5	8.7%
<b>Non-operating Revenues</b>				
Property taxes	46.3	42.4	3.9	9.2%
Interest income	1.2	1.2	-	0.0%
Real estate income	13.1	12.5	0.6	4.8%
Increase (decrease) in fair value of real estate investments	5.6	-	5.6	100%
Other income	7.8	7.9	(0.1)	-1.3%
Total non-operating revenues	74.0	64.0	10.0	15.6%
Total revenues	218.4	196.9	21.5	10.9%
<b>Operating Expenses</b>				
Water services expenses	69.3	67.3	2.0	3.0%
Sewer services expenses	48.1	60.4	(12.3)	-20.4%
Depreciation	58.3	51.0	7.3	14.3%
Total operating expenses	175.7	178.7	(3.0)	-1.7%
<b>Non-operating Expenses</b>				
Interest expense	15.4	13.9	1.5	10.8%
Real estate expense	4.4	6.3	(1.9)	-30.2%
Other expense	2.8	9.7	6.9	-71.1%
Total non-operating expenses	22.6	29.9	(7.3)	-24.4%
Total expenses	198.3	208.6	(10.3)	-4.9%
Income/(loss) before capital contributions	20.1	(11.7)	31.8	-271.8%
Capital contributions	53.3	42.6	10.7	25.1%
Change in Net Position	73.4	30.9	42.5	137.5%
Beginning Net Position	1,354.7	1,389.6	(34.9)	-2.5%
Prior period adjustments <sup>(1)</sup>	150.2	(65.8)	216.0	-328.3%
<b>Ending Net Position</b>	<b>\$ 1,578.3</b>	<b>\$ 1,354.7</b>	<b>\$ 223.6</b>	<b>16.5%</b>

<sup>(1)</sup> These include two prior period adjustments. In the fiscal year ended 2015, the prior period adjustment relates to the implementation of the new pension accounting standards, GASB 68 and 71 as information relating to the prior year was not readily available. In fiscal year ended 2016, the prior period adjustment relates to the implementation of the new fair value accounting standards, GASB 72 as information relating to the prior year was not readily available. Additional information on the restatement of net position can be found in Note 18 of the Notes to the Basic Financial Statements.

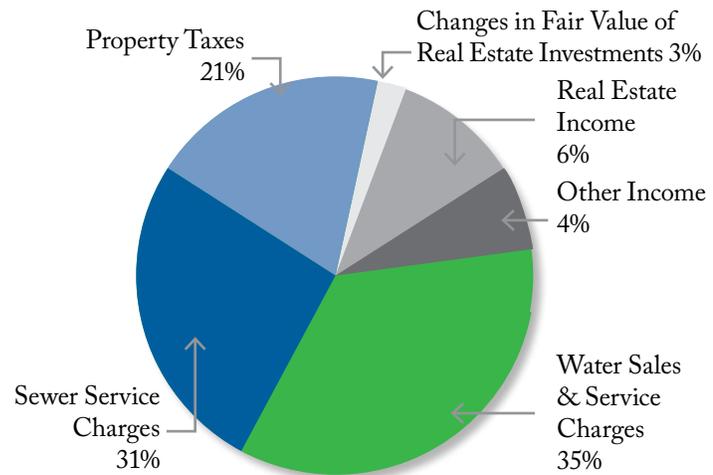
## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

### Revenues:

As shown in Table 2, the District's operating revenues total \$144.4 million or 66.1 percent of total revenues. Water sales contributed 53.1 percent to total operating revenues and sewer sales contribute 46.9 percent to total operating revenues. Operating revenues increased by \$11.5 million or 8.7 percent from the prior fiscal year. Overall, approximately 90 percent of the operating revenue increase is attributable to a Board approved rate increase resulting from increased water and sewer production charges from third parties that were passed through to customers. The remaining increase in operating revenue is due to customer growth in the District's service areas due to increased housing activity. The chart below illustrates the sources of revenue for the fiscal year ended June 30, 2016.

Non-operating revenues account for 33.9 percent of total revenue for the fiscal year ended June 30, 2016. This is an increase of \$10.0 million or 15.6 percent from the prior fiscal year due primarily to (1) \$5.6 million in fair value of real estate investments as a result of new accounting standard (GASB 72) which requires real estate investments to be reflected at fair market value; (2) \$3.9 million in 1 percent property tax revenue associated with higher assessed valuations in the District's service area; and (3) \$0.6 million in real estate income generated from the District's real estate investment assets.

Sources of Revenue for Fiscal Year  
Ended June 30, 2016



### Expenses:

As shown in Table 2, operating expenses total \$175.7 million, of which \$117.4 million relates to the cost of providing water and sewer services to the District's customers. Water service operating costs are 90.4 percent and 96.0 percent of revenues in fiscal years 2016 and 2015, respectively. Sewer service operating costs are 71.0 percent and 96.2 percent of revenues in fiscal years 2016 and 2015, respectively. Water and sewer operating expenses, excluding depreciation, decreased by \$10.3 million or 8.1 percent over the prior fiscal year.

Water expenses totaled \$69.3 million, an increase of \$2.0 million or 3.0 percent primarily due to:

- An increase of \$2.6 million in labor and benefit costs, most of which are associated with new or planned additional facilities coming on line.
- An increase of \$2.4 million in additional outreach and expanded water conservation programs to promote water use efficiency.
- A \$2.0 million decrease for imported water purchases due to lower customer demand resulting from the effective water conservation messaging during the drought. This is the District's most expensive source of water. Total imported water purchased decreased from 18,628 acre feet to 11,853 acre feet.
- A \$0.8 million decrease in expensed water projects related to the District's capital program.
- Other decreases of \$0.2 million.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

### Expenses: (Continued)

Sewer service expenses totaled \$48.1 million, a decrease of \$12.3 million or 20.4 percent over the prior fiscal year. The decrease is due primarily to:

- A reduction of \$11.0 million in the cost of handling, treatment, and disposal of sewage solids residuals sent to the District's third party provider (the Orange County Sanitation District).
- A decrease of \$3.6 million in recycled water purchases as a result of recycled water customers who responded well to the water efficiency messaging and reduced overall recycled water demands.
- A decrease of \$2.4 million in expensed sewer and recycled projects related to the District's capital program.
- An increase of \$2.9 million in sewage treatment and recycled system maintenance and \$1.9 million overhead regular and contract labor and benefits costs.
- Other increase of \$1.8 million.

Depreciation expense totaled \$58.3 million, an increase of \$7.3 million or 14.3 percent over the prior fiscal year. The increase is the result of the completion of several capital projects. During the fiscal year ended June 30, 2016, \$73.3 million assets were placed in service.

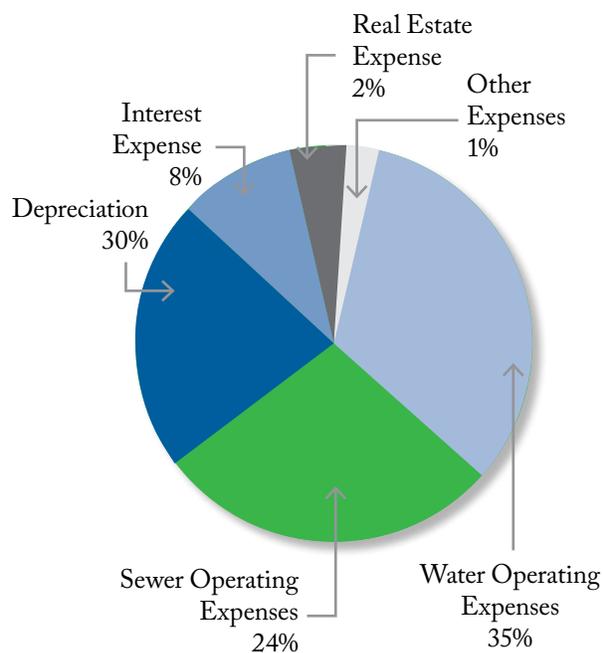
Non-operating expenses totaled \$22.6 million, a decrease of \$7.3 million or 24.4 percent over the prior fiscal year. The decrease is primarily due to a reduction of \$7.3 million in other expense capital assets and project write-offs.

Non-operating expenses consist primarily of \$15.4 million interest expense for the District's debts and \$4.4 million real estate expense associated with the District's real estate investment assets.

### Capital Contributions:

Capital contributions totaled \$53.3 million, an increase of \$10.7 million or 25.1 percent over \$42.6 million in the prior fiscal year. Donated facilities from developers increased from \$12.3 million in the prior fiscal year to \$20.3 million in the current fiscal year. The District also received \$32.1 million of connection fees from developers as a result of increased housing construction and \$0.9 million of grants from federal and state agencies during the year.

Functional Expenses for Fiscal Year  
Ended June 30, 2016



## MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

### Capital Assets:

The District's investment in capital assets consists of the following as of June 30:

	2016	2015	Increase/(Decrease)	
			Amount	Percentage
Water assets	\$ 982.4	\$ 964.3	\$ 18.1	1.9%
Sewer assets	1,166.4	1,124.1	42.3	3.8%
Less: accumulated depreciation	(746.6)	(688.6)	(58.0)	8.4%
Land and water rights	93.2	82.7	10.5	12.7%
Construction in progress	236.2	164.9	71.3	43.2%
<b>Total</b>	<b>\$ 1,731.6</b>	<b>\$ 1,647.4</b>	<b>\$ 84.2</b>	<b>5.1%</b>

Capital assets, net of depreciation increased \$84.2 million or 5.1% from \$1,647.4 million in the prior fiscal year to \$1,731.6 million in the current fiscal year. This was primarily due to an increase of \$71.3 million in Construction in Progress during the current fiscal year. The following is a list of top 10 capital projects expenditures incurred in the current fiscal year (in millions):

<u>Project Description</u>	<u>Amount</u>
MWRP Biosolids and Energy Recovery Facilities	\$ 56.2
PVID Eaton Property	11.5
Michelson Lift Station Property	3.7
Baker Water Treatment Plant of the District (IRWD Portion)	3.4
Rosedale Drought Relief Project Facilities	3.0
PA9 Jeffrey Road Pipelines, 36" Zone, 36" Syphon	2.2
Rattlesnake Chlorine Gas Removal	1.7
Stockdale West Integrated Water Banking Project	1.6
General Plant Machinery and Vehicle	1.5
ILP North Conversion (Rattlesnake to Peters Canyon)	0.9
<b>Total</b>	<b>\$ 85.7</b>

Total projects transferred from Construction in Progress to Capital Assets and depreciated during the fiscal year ended June 30, 2016 were \$57.5 million. In addition, \$1.6 million of projects were expensed during the current fiscal year.

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, 2016, the District had total debt outstanding of \$553.1 million, a decrease of \$19.7 million or 3.4 percent from \$572.8 million in the prior fiscal year.

	2016	2015	Increase/(Decrease)	
			Amount	Percentage
General obligation bonds	\$ 491.2	\$ 503.8	\$ (12.6)	-2.5%
Certificates of participation	60.4	67.3	(6.9)	-10.3%
Notes payable	1.5	1.7	(0.2)	-11.8%
<b>Total</b>	<b>\$ 553.1</b>	<b>\$ 572.8</b>	<b>\$ (19.7)</b>	<b>-3.4%</b>

During the current fiscal year, the decreases in the District's total debt were primarily due to principal maturities of \$19.3 million. The District also amortized \$0.4 million of certificates of participation during the current fiscal year.

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, 2016  
(with comparative data as of June 30, 2015)  
(amounts expressed in thousands)

	2016	2015
<b>ASSETS</b>		
Current Assets:		
Cash and Investments (note 2)	\$ 213,863	\$ 250,372
Receivables:		
Customer accounts receivable	8,055	6,288
Interest receivable	502	293
Notes receivable, current portion	28	13
Other receivables	8,649	5,218
Total receivables	17,234	11,812
Other Current Assets:		
Inventories (note 4)	3,197	3,693
Prepaid items and deposits	1,532	4,796
Total other current assets	4,729	8,489
Total current assets	235,826	270,673
Noncurrent Assets:		
Capital Assets (note 5):		
Water assets	982,372	964,305
Sewer assets	1,166,362	1,124,081
Subtotal	2,148,734	2,088,386
Less accumulated depreciation	(746,561)	(688,599)
Total capital assets being depreciated, net	1,402,173	1,399,787
Land and water rights	93,244	82,721
Construction in progress	236,174	164,914
Total capital assets, net	1,731,591	1,647,422
Other Noncurrent Assets:		
Investments - swap collateral (note 2)	13,109	11,005
Investment in installment sale agreement (note 8)	8,562	6,216
Notes receivable, net of current portion	140	100
Real estate investments (note 7)	199,003	43,270
Net pension asset (note 13)	-	1,567
Total other noncurrent assets	220,814	62,158
Total noncurrent assets	1,952,405	1,709,580
<b>TOTAL ASSETS</b>	<b>2,188,231</b>	<b>1,980,253</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred refunding charges	1,192	1,389
Accumulated decrease in fair value of swap agreements (note 3)	41,200	35,260
Pension contributions (note 13)	6,866	6,638
Pension actuarial (note 13)	407	-
<b>TOTAL DEFERRED OUTFLOW OF RESOURCES</b>	<b>49,665</b>	<b>43,287</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Net Position  
June 30, 2016  
(with comparative data as of June 30, 2015)  
(amounts expressed in thousands)  
(Continued)

	2016	2015
<b>LIABILITIES</b>		
Current Liabilities:		
Account payable and accrued expenses	33,399	21,823
Customer deposits and advance payments	5,091	3,576
Accrued interest:		
General obligation bonds	1,568	1,479
Other accrued interest payable	2,088	2,257
Current portion of long-term liabilities:		
General obligation bonds (note 9)	12,900	12,600
Certificates of participation (note 9)	7,496	6,906
Notes payable (note 9)	260	259
Other long term liabilities (note 9)	1,653	1,638
Unearned revenue (note 10)	525	525
Claims liability (note 17)	411	428
Total current liabilities	65,391	51,491
Long-Term Liabilities:		
General obligation bonds, net of current portion (note 9)	478,300	491,200
Certificates of participation, net of current portion (note 9)	52,891	60,387
Notes payable, net of current portion (note 9)	1,209	1,469
Other long term liabilities (note 9)	3,109	3,010
Unearned revenue, net of current portion (note 10)	7,323	7,849
Claims liability, net of current portion (note 17)	751	768
Net pension liability (note 13)	1,923	-
Net OPEB obligation (note 14)	3,079	2,856
Swap liability (note 3)	41,200	35,260
Total long-term liabilities	589,785	602,799
<b>TOTAL LIABILITIES</b>	<b>655,176</b>	<b>654,290</b>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Pension actuarial (note 13)	4,409	14,587
<b>TOTAL DEFERRED INFLOWS OF RESOURCES</b>	<b>4,409</b>	<b>14,587</b>
<b>NET POSITION (note 12):</b>		
Net investment in capital assets	1,178,535	1,074,602
Restricted for water services	221,503	148,564
Restricted for sewer services	178,273	131,497
<b>TOTAL NET POSITION</b>	<b>\$ 1,578,311</b>	<b>\$ 1,354,663</b>

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, 2016  
(with comparative data for the Fiscal Year Ended June 30, 2015)  
(amounts expressed in thousands)

	2016	2015
<b>OPERATING REVENUES:</b>		
Water sales and service charges	\$ 76,692	\$ 70,110
Sewer sales and service charges	67,682	62,808
Total operating revenues	144,374	132,918
<b>OPERATING EXPENSES:</b>		
Water:		
Water services	57,499	57,978
General and administrative	11,827	9,319
Sewer:		
Sewer services	40,413	54,575
General and administrative	7,625	5,826
Depreciation	58,330	51,015
Total operating expenses	175,694	178,713
Operating income (loss)	(31,320)	(45,795)
<b>NONOPERATING REVENUES (EXPENSES):</b>		
Property taxes	46,303	42,431
Interest income	1,249	1,214
Increase (decrease) in fair value of investments	(32)	(28)
Real estate income	13,056	12,518
Increase (decrease) in fair value of real estate investments	5,597	-
Other income	7,837	7,899
Interest expense	(15,415)	(13,903)
Real estate expense	(4,363)	(6,251)
Other expenses	(2,800)	(9,752)
Total nonoperating revenues (expenses)	51,432	34,128
Income (loss) before capital contributions	20,112	(11,667)
<b>CAPITAL CONTRIBUTIONS:</b>		
Donated facilities	20,305	12,277
Connection fees	32,110	29,183
Other	863	1,080
Increase (decrease) in net position	73,390	30,873
<b>NET POSITION AT BEGINNING OF YEAR</b>	<b>1,354,663</b>	<b>1,389,615</b>
Prior period adjustments (note 18)	150,258	(65,825)
<b>NET POSITION AT END OF YEAR</b>	<b>\$ 1,578,311</b>	<b>\$ 1,354,663</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Cash Flows  
For the Fiscal Year Ended June 30, 2016  
(with comparative data for the Fiscal Year Ended June 30, 2015)  
(amounts expressed in thousands)

	2016	2015
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Cash received from customers and users	\$ 137,941	\$ 131,872
Cash paid to suppliers of goods and services	(67,987)	(65,453)
Cash paid for employees services	(51,421)	(49,376)
Net cash provided by (used for) operating activities	18,533	17,043
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:</b>		
Property tax receipts	48,746	42,431
Net cash provided by noncapital financing	48,746	42,431
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>		
Acquisition and construction of capital assets	(105,474)	(116,836)
Proceeds from disposition of capital assets	-	27
Principal payments on long-term liabilities	(19,378)	(18,121)
Interest and issuance costs on long term liabilities	(19,321)	(14,057)
Developer connection fees and related receipts	32,973	30,263
Net cash provided by (used for) capital and related financing activities	(111,200)	(118,724)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Investment earnings	910	1,261
Investment earnings in real estate	8,693	8,609
Proceeds from sale or maturity of investments	244,625	274,883
Purchases of investments	(201,358)	(290,094)
Issuance of notes receivable	67	-
Collections on notes receivable	(122)	15
Net cash provided by (used for) investing activities	52,815	(5,326)
Net increase (decrease) in cash and cash equivalents	8,894	(64,576)
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>	49,623	114,199
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	\$ 58,517	\$ 49,623

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Cash Flows  
For the Fiscal Year Ended June 30, 2016  
(with comparative data for the Fiscal Year Ended June 30, 2015)  
(amounts expressed in thousands)  
(Continued)

	2016	2015
Reconciliation of cash and cash equivalents to amounts reported on the Statement of Net Position:		
Cash and investments	\$ 213,863	\$ 250,372
Investments - swap collateral	13,109	11,005
Investment in installment sale agreement	8,562	6,216
Subtotal	235,534	267,593
Less long-term investments	(177,017)	(217,970)
Cash and cash equivalents at end of year	\$ 58,517	\$ 49,623
Reconciliation of operating income to net cash provided by (used for) operating activities:		
Operating income (loss)	\$ (31,320)	\$ (45,795)
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:		
Other nonoperating income	7,959	10,103
Other nonoperating expenses	(2,800)	(9,752)
(Gain) loss on disposition of capital assets	3	7,629
Depreciation and amortization	58,330	51,015
(Increase) decrease in customer receivables	(1,767)	1,876
(Increase) decrease in installment sale receivables	(2,346)	-
(Increase) decrease in other receivables	(3,431)	(1,964)
(Increase) decrease in inventories	496	(646)
(Increase) decrease due from other agencies	-	9,336
(Increase) decrease in prepaid expenses and other assets	3,264	7,326
(Increase) decrease in net pension asset	1,567	(22,021)
(Increase) decrease in deferred outflows	(635)	(72)
Increase (decrease) in accounts payable and accrued expenses	(3,798)	(3,936)
Increase (decrease) in customer deposits and advance payments	1,515	(433)
Increase (decrease) in compensated absences	88	64
Increase (decrease) in claims payable	(34)	20
Increase (decrease) in unearned revenue	(526)	(525)
Increase (decrease) in net OPEB obligation	223	231
Increase (decrease) in net pension liability	1,923	-
Increase (decrease) in deferred inflows	(10,178)	14,587
Net cash provided by (used for) operating activities	\$ 18,533	\$ 17,043
Noncash investing, capital and financing activities:		
Contributions of capital assets from developers	\$ 20,305	\$ 12,277
Unrealized gain (loss) on investments	5,597	(28)
Total noncash investing, capital and financing activities	\$ 25,902	\$ 12,249

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Fiduciary Net Position  
Fiduciary Fund - Pension Benefits Trust Fund  
June 30, 2016  
(with comparative data as of June 30, 2015)  
(amounts expressed in thousands)

	2016	2015
<b>ASSETS</b>		
Cash and investments (note 2):		
Equities	\$ 28,600	\$ 30,756
Fixed income bonds	13,011	10,472
Money market	5,520	4,068
Total cash and investments	47,131	45,296
Interest receivable	16	17
<b>TOTAL ASSETS</b>	<b>47,147</b>	<b>45,313</b>
 <b>NET POSITION</b>		
Net position held in trust for pension benefits	\$ 47,147	\$ 45,313

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Changes in Fiduciary Net Position  
Fiduciary Fund - Pension Benefits Trust Fund  
For the Fiscal Year Ended June 30, 2016  
(with comparative data for the Fiscal Year Ended June 30, 2015)  
(amounts expressed in thousands)

	2016	2015
<b>ADDITIONS</b>		
Contributions:		
Employer	\$ 1,940	\$ 2,113
Total contributions	1,940	2,113
Investment income:		
Interest	16	17
Dividends	810	894
Investments gain (loss)	(1,004)	128
Net increase (decrease) in the fair value of investments	103	(357)
Total investment earnings	(75)	682
Total additions	1,865	2,795
<b>DEDUCTIONS</b>		
Administrative expenses	31	73
Total additions	31	73
Increase (decrease) in net position	1,834	2,722
<b>NET POSITION AT BEGINNING OF YEAR</b>	<b>45,313</b>	<b>42,591</b>
<b>NET POSITION AT END OF YEAR</b>	<b>\$ 47,147</b>	<b>\$ 45,313</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, 2016

**(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, with the exceptions of the Los Alisos service areas. The Los Alisos areas were consolidated into the District in 2001. Los Alisos currently has separate user rate structures for water sales and service charges.

**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, 2016  
(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, and 2010 Refunding 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.

**Irvine Ranch Water District Improvement Corporation** – In August 1986, the District formed a 501(c)(4) corporation for the purpose of financing water, sewer and other public improvements. The Corporation's only transactions are related to the debt service payments on the outstanding 1986 Certificates of Participation which were refunded by the Irvine Ranch Water District Service Corporation Certificates of Refunding Series 2010. The Corporation is governed by the five members of the Board of Directors of the District. The District accounts for the Corporation's activities in several Improvement Districts. The Irvine Ranch Water District Improvement Corporation does not issue separate financial statements. There is no current activity for the Corporation.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(1) Summary of Significant Accounting Policies (Continued)**

**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, the Statement of Fiduciary Net Position – Fiduciary Fund, the Statement of Changes in Fiduciary Net Position – Fiduciary Fund, 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. In addition, the District accounts the Irvine Ranch Water District Post-Employment Benefits Trust (Pension Benefits Trust) as a fiduciary fund. The Pension Benefits Trust fund is maintained to account for assets held in a trustee capacity. Both the enterprise fund and the Pension Benefits Trust fund utilize 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.

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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(1) **Summary of Significant Accounting Policies (Continued)**

(c) **Measurement Focus, Basis of Accounting and Financial Statement Presentation (Continued)**

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 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 invested in capital assets, net of related debt.

**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.

(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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(1) Summary of Significant Accounting Policies (Continued)**

**(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 12 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 Fiduciary Net Position at fair value.

In the Statement of Changes in Fiduciary Net Position, 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.

**(h) Real Estate Investments**

Real estate investments consist of a wholly-owned apartment complex and three commercial office buildings. The District is also a party to a real estate limited partnership in which the District has a 50% or less ownership interest and 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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(1) Summary of Significant Accounting Policies (Continued)**

**(i) Fair Value Measurements (Continued)**

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 input 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.

**(j) Inventory and Prepaid Items**

Water inventory is stated at its purchase cost using the first in, first out 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) Capitalized Interest**

Interest costs on related borrowings are capitalized during the construction period of major capital asset additions. The capitalized interest is recorded as part of the asset to which it is related and is depreciated over the estimated useful life of the related asset.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(1) Summary of Significant Accounting Policies (Continued)**

**(m) Compensated Absences**

During the current fiscal year, the District changed its policy in 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 320 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.

**(n) Pensions**

For purposes of measuring the net pension liability and 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 as fair value.

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, 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, 2014
Measurement Date (MD)	June 30, 2015
Measurement Period (MP)	June 30, 2014 to June 30, 2015

**(o) Deferred Outflows/Inflows of Resources**

In addition to assets, the Statement of Net Position will sometimes report 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 reported in the statement of net position result from the difference in the carrying value of refunded debt and the reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.
- Accumulated decrease in fair value of swap agreements reported in the statement of net position results from changes in fair market value of the fixed payer interest rate swaps.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(1) Summary of Significant Accounting Policies (Continued)**

**(o) Deferred Outflows/Inflows of Resources (Continued)**

- As a result of implementation of GASB Statement No. 68, all cash contributions made to the CalPERS and the Benefits Trust during the current fiscal year are reclassified as deferred outflows of resources.
- As a result of implementation of GASB Statement No. 68, the difference between the actual experience and expected experience is amortized over 4.3 years. The unamortized amount of that difference is represented as deferred outflows of resources.

In addition to liabilities, the Statement of Net Position will sometimes report 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:

- As a result of implementation of GASB Statement No. 68, the difference between the actual earnings on pension plan investments and projected earnings on pension plan investments is amortized over five years. The unamortized amount of that difference is represented as deferred inflows of resources.
- As a result of implementation of GASB Statement No. 68, the changes in actuarial assumptions are amortized over 4.3 years. The unamortized amount of that changes is represented as deferred inflows of resources.

**(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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(2) **Cash and Investments**

Cash and investments as of June 30, 2016 are classified in the accompanying financial statements as follows (in thousands):

<b>Statement of Net Position:</b>	
Cash and investments	\$ 213,863
Investments-swap collateral	13,109
<b>Total Cash and Investments</b>	<u>226,972</u>
<b>Fiduciary Fund - Pension Benefits Trust:</b>	
Cash and investments:	
Equities	28,600
Fixed income	13,011
Money market	5,520
	<u>47,131</u>
<b>Total Cash and Investments</b>	<u><b>\$ 274,103</b></u>

Cash and investments as of June 30, 2016 consist of the following (in thousands):

<b>District Cash and Investments:</b>	
Cash on hand	\$ 3
Deposits with financial institutions	(3,555)
Investments	230,524
<b>Total Cash and Investments</b>	<u>226,972</u>
<b>Fiduciary Fund - Pension Benefits Trust:</b>	
Cash and investments:	
Equities - mutual funds	28,600
Fixed income bonds - mutual funds	13,011
Money market - mutual funds	5,520
	<u>47,131</u>
<b>Total Cash and Investments</b>	<u><b>\$ 274,103</b></u>

Investments-swap collateral funds are held in separate trust accounts and earn the Federal Funds Effective Rate which was 0.32% as of June 30, 2016.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(2) **Cash and Investments (Continued)**

**District Authorized Investment Policy**

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, 2016  
(Continued)

(2) **Cash and Investments (Continued)**

**District Investments Authorized by Debt Agreements**

Investments of debt proceeds held by the bond trustee are governed by provisions of the debt agreements, rather than the general provisions of the California Government Code or the District's investment policy. None of the District's bond trustees hold any debt proceeds or monies that are subject to investment under the debt agreements.

**Pension Benefits Trust (The Trust) Authorized Investment Strategy**

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 Retirement Board (the Board) consists of two IRWD Board members and the General Manager. The Board shall designate multiple investment managers 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:

<u>Asset Classes</u>	<u>Minimum</u>	<u>Maximum</u>
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 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-I, P-I 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, 2016  
(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.

**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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(2) **Cash and Investments (Continued)**

**Disclosures Relating to Interest Rate Risk (Continued)**

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 tables that shows the distribution of the investments by maturity (in thousands):

**District Cash and Investments:**

<u>Investment Type</u>	<u>Amount</u>	<u>Remaining Maturity</u>	
		<u>12 Months Or Less</u>	<u>13 to 36 Months</u>
Federal Agency Securities	\$ 155,346	\$ 75,106	\$ 80,240
Local Agency Investment Fund	62,069	62,069	-
Treasury Equivalents <sup>(1)</sup>	13,109	13,109	-
Total	\$ 230,524	\$ 150,284	\$ 80,240

**Fiduciary Fund - Pension Benefits Trust:**

<u>Investment Type</u>	<u>Amount</u>	<u>Remaining Maturity</u>			
		<u>12 Months Or Less</u>	<u>13 to 36 Months</u>	<u>36 Months Or More</u>	<u>Not Applicable</u>
Mutual Funds - Equities	\$ 28,600	\$ -	\$ -	\$ -	\$ 28,600
Mutual Funds - Fixed Income Bonds	13,011	867	992	11,152	-
Mutual Funds - Money Market	5,520	5,520	-	-	-
Total	\$ 47,131	\$ 6,387	\$ 992	\$ 11,152	\$ 28,600

<sup>(1)</sup> Treasury Equivalents represent invested swap collateral earning the Effective Federal Funds Rate of interest which was 0.32% as of June 30, 2016.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(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):

<b>District Cash and Investments:</b>	<b>Amount</b>	<b>Rating as of Year End</b>	
		<b>Between AA- and AA+</b>	<b>Not Rated</b>
<b>Investment Type</b>			
Federal Agency Securities	\$ 155,346	\$ 140,382	\$ 14,964
Local Agency Investment Fund	62,069	-	62,069
Treasury Equivalents	13,109	13,109	-
Total	<u>\$ 230,524</u>	<u>\$ 153,491</u>	<u>\$ 77,033</u>

**Fiduciary Fund - Pension Benefits Trust:**

<b>Investment Type</b>	<b>Amount</b>
Mutual Funds - Equities	\$ 28,600 <sup>(1)</sup>
Mutual Funds - Fixed Income Bonds	13,011 <sup>(2)</sup>
Mutual Funds - Money Market	5,520 <sup>(3)</sup>
Total	<u>\$ 47,131</u>

<sup>(1)</sup> Equity Mutual Funds as of 6/30/2016 include three “index funds” and are each comprised of diversified portfolios of equity securities. Credit ratings are not provided for Equity Mutual Funds.

<sup>(2)</sup> The Fixed Income Bonds Mutual Fund is comprised of three diversified portfolios of fixed income securities. As of 6/30/2016, 76.39% of the holdings were rated A-AAA, 20.89% of the holdings were rated B-BBB, and 2.72% of the holdings were rated below B or Not Rated.

<sup>(3)</sup> The Money Market Mutual Fund is rated AAA by Standard & Poor’s, Moody’s and Fitch rating services.

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, 2016  
(Continued)

(2) **Cash and Investments (Continued)**

**Disclosures Relating to Credit Risk (Continued)**

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>
FHLMC	Federal Agency Securities	\$ 49,114
FHLB	Federal Agency Securities	46,178
FNMA	Federal Agency Securities	40,041
FFCB	Federal Agency Securities	15,006
	Total	<u>\$ 150,339</u>

The long term asset allocation policy of the Trust authorizes investment of assets in financial instruments in three broad categories: equity, fixed income, and real estate with a minimum-maximum asset allocation range for each asset class as approved by the Retirement Board.

**Fiduciary Fund - Pension Benefits Trust:**

<u>Fund Name</u>	<u>Amount</u>
Vanguard Institutional Index	\$ 20,539
Vanguard Extended Market Index	2,009
Vanguard Developed Markets Index	6,052
Metropolitan West Total Return Bond	9,996
Baird Core Plus Bond	2,013
Vanguard High-Yield Corporate	1,002
Federated Government Obligations	
Money Market Fund	5,520
Total	<u>\$ 47,131</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, 2016 (in thousands):

<u>District Cash and Investments:</u>	<u>Fair Value Measurements</u>		
<u>Investment Type</u>	<u>Amount</u>	<u>Level 1</u>	<u>Level 2</u>
Federal Agency Securities	\$ 155,346	\$ -	\$ 155,346
Local Agency Investment Fund	62,069	-	62,069
Treasury Equivalents	13,109	13,109	-
Total	<u>\$ 230,524</u>	<u>\$ 13,109</u>	<u>\$ 217,415</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(2) **Cash and Investments (Continued)**

**Disclosures Relating to Fair Value Measurements (Continued)**

Investment Type	Amount	Fair Value Measurements Level 1
Mutual Funds - Equities	\$ 28,600	\$ 28,600
Mutual Funds - Fixed Income Bonds	13,011	13,011
Mutual Funds - Money Market	5,520	5,520
Total	\$ 47,131	\$ 47,131

(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 implemented during FY 2012-13 regarding swap advisor representation and transparency.

All outstanding interest rate swaps are pay-fixed, receive variable swaps ("fixed payer swaps"). As of June 30, 2016, the notional amount and fair value balance of the District's interest rate swaps is \$130.0 million and (\$41.2) million, respectively. For the year ended June 30, 2016, the decrease in fair market value of the fixed payer interest rate swaps was \$5.9 million.

The fair value of the swap agreements at June 30, 2016 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 2006 and 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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(3) **Interest Rate Swap Agreements (Continued)**

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, 2016, along with the credit rating of the associated counterparty.

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	\$ 20,000	6/04/06	6/04/19	Pay 6.200%; receive 1-Mo. LIBOR	A1/A/A+
Fixed Payer	Hedge of changes in cash flows on pool of variable rate debt issues	20,000	6/04/06	6/04/19	Pay 6.200%; receive 1-Mo. LIBOR	A1/A/A+
Fixed Payer	Hedge of changes in cash flows on pool of variable rate debt issues	30,000	6/17/06	6/17/19	Pay 6.140%; receive 1-Mo. LIBOR	A1/A/A+
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	A1/A/A+
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	A1/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 plus outstanding swap accrual amounts in excess of (\$15.0) million. As of June 30, 2016, the mark-to-market value of the total interest rate swaps with Citibank N.A. as counterparty exceeded the threshold amount requiring a collateral deposit in the amount of \$8.2 million, and the mark-to-market value of the total interest rate swaps with Bank of America, N.A. as counterparty exceeded the threshold amount requiring a collateral deposit in the amount of \$4.9 million. The collateral funds are held in separate trust accounts and earn interest at the Federal Funds Effective Rate (0.32% as of June 30, 2016). Swap collateral funds totaling \$13.1 million are included as non-current Investments-Swap Collateral on the Statement of Net Position as of June 30, 2016.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(3) Interest Rate Swap Agreements (Continued)**

*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 A1/A/A+ (62% of net exposure to credit risk) and A1/A/A+ (38% of net exposure to credit risk) as of June 30, 2016.

*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.

*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 additional collateral has been posted at June 30, 2016, other than the collateral posted as a result of the mark-to-market valuations at June 30, 2016.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(4) **Inventories**

Inventories consist of available water in storage and materials and supplies in the District's warehouse facility. As of June 30, 2016, the District had 148.9 acre-feet of wheeled water stored in the Irvine Lake in the amount of \$0.1 million. In addition, the District had 19,322 acre-feet of banked water in various water bank facilities in the amount of \$0.7 million. Inventories at June 30, 2016 consisted of the following (in thousands):

Water in storage	\$ 777
Materials and supplies	<u>2,420</u>
Total	<u>\$ 3,197</u>

(5) **Capital Assets**

Capital Asset activity for the year ended June 30, 2016 is as follows (in thousands):

	Balance at June 30, 2015	Additions	Deletions	Balance at June 30, 2016
Capital assets:				
Land leasehold	\$ 4,860	\$ -	\$ -	\$ 4,860
Buildings and structures	698,690	14,360	-	713,050
Transmissions and distributions	1,113,707	44,914	-	1,158,621
Machinery and equipment	<u>271,129</u>	<u>1,445</u>	<u>(371)</u>	<u>272,203</u>
Sub-total	<u>2,088,386</u>	<u>60,719</u>	<u>(371)</u>	<u>2,148,734</u>
Less: Accumulated depreciation:				
Land leasehold	(971)	(97)	-	(1,068)
Buildings and structures	(239,255)	(16,599)	-	(255,854)
Transmissions and distributions	(331,250)	(29,841)	-	(361,091)
Machinery and equipment	<u>(117,123)</u>	<u>(11,792)</u>	<u>367</u>	<u>(128,548)</u>
Sub-total	<u>(688,599)</u>	<u>(58,329)</u>	<u>367</u>	<u>(746,561)</u>
Total depreciable capital assets, net	1,399,787	2,390	(4)	1,402,173
Capital assets, non-depreciable:				
Land and water rights	82,721	10,523	-	93,244
Construction in progress	<u>164,914</u>	<u>130,403</u>	<u>(59,143)</u>	<u>236,174</u>
Total capital assets, net	<u>\$ 1,647,422</u>	<u>\$ 143,316</u>	<u>\$ (59,147)</u>	<u>\$ 1,731,591</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(6) Capitalized Amounts**

Net interest costs and 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 and net interest costs capitalized to construction-in-progress for the year ended June 30, 2016 is as follows (in thousands):

Administrative and general expense, capitalized	\$ 5,830
Interest expenses, capitalized <sup>(1)</sup>	<u>3,662</u>
	<u>\$ 9,492</u>

<sup>(1)</sup> The total amount of interest cost incurred for the year ended June 30, 2016 (both the amounts expensed and the amounts capitalized) was \$19,077.

**(7) Real Estate Investments**

Real estate investments as of June 30, 2016 consist of the following (in thousands):

Real estate investments at fair value	\$ 198,848
Real estate assets at cost	<u>155</u>
Total	<u>\$ 199,003</u>

During the fiscal year ended June 30, 2016, the District implemented GASB Statement No. 72, *Fair Value Measurement and Application*. The District has the following fair value measurements for the real estate investments that are valued based on an appraisal valuation (Level 3 inputs) (in thousands):

	<u>Level 3</u>
Wood Canyon Villas, L.P.	\$ 27,296
Sycamore Canyon Apartments	143,910
230 Commerce Office Property	9,384
Waterworks Way Business Park	7,650
Sand Canyon Professional Center	<u>10,606</u>
Total	<u>\$ 198,848</u>

Included in real estate investments are two apartment properties and three commercial office buildings. 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).

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(7) Real Estate Investments (Continued)**

The construction of Wood Canyon Villas, a 230-unit apartment complex, was completed in 1993. The complex is located in Orange County, California, and was 97% occupied at June 30, 2016. The Wood Canyon partnership agreement provides the District with a 9% cumulative preferred return on its unrecovered contribution accounts, as defined in the agreement (initially \$6.0 million). The District's capital contributions and preferred return are guaranteed by the principals of the general partner.

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, 2016. In addition, the Sycamore Canyon Apartments completed a renovation project in 2007 for a total cost of \$9.6 million.

In 2003, the District completed construction of the 41,000 square foot for-lease 230 Commerce general office building located in Irvine, California. Land and construction costs for the project totaled \$5.6 million and the building was 54% occupied as of June 30, 2016.

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, 2016 the building was 100% occupied.

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 cost for the project totaled \$8.4 million and the building was 100% occupied as of June 30, 2016.

Net real estate income as of June 30, 2016 is as follows (in thousands):

Real estate income	\$ 13,056
Increase (decrease) in fair value of real estate investments	5,597
Real estate expense	<u>(4,363)</u>
Net real estate income	<u>\$ 14,290</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(8) Investment in Installment Sale Agreement**

In February 2014, the District and El Toro Water District (ETWD) entered into an Installment Sale Agreement (the ISA) pursuant to which the District agreed to fund ETWD's share of the costs of construction of, and the acquisition of capacity rights in, the Baker Water Treatment Plant project (the Baker WTP) in exchange for quarterly installment payments from ETWD. ETWD's obligation to repay the District under the ISA is payable from net revenues of ETWD's water system over a period of twenty years. Terms of the installment sale agreement provide for interest-only payments during construction of the Baker WTP, with principal and interest amortized over a 20-year period upon completion of construction. The principal amount of ETWD's obligations under the ISA will not exceed \$12.5 million. The amount outstanding under the ISA as of June 30, 2016 was \$8.6 million and the applicable interest rate is 4.57% which was established on the date of the first purchase and is set at the Bloomberg A-Rated Utility Index for a 20-year indebtedness as of that date.

**(9) Long-Term Liabilities**

Long-term liability activity for the year ended June 30, 2016 is as follows (in thousands):

	Balance June 30, 2015	Additions	Deletions	Balance June 30, 2016	Due within One Year	Due in more than one Year
<b>General Obligation Bonds:</b>						
1993 C Consolidated	\$ 34,600	\$ -	\$ (1,500)	\$ 33,100	\$ 1,600	\$ 31,500
1995 Consolidated	14,200	-	(2,100)	12,100	2,200	9,900
2008A Refunding	54,000	-	(1,500)	52,500	1,500	51,000
2009A Consolidated	67,500	-	(2,500)	65,000	2,500	62,500
2009B Consolidated	67,500	-	(2,500)	65,000	2,500	62,500
2010B BABS	175,000	-	-	175,000	-	175,000
2011A-1 Refunding	54,600	-	(1,500)	53,100	1,560	51,540
2011A-2 Refunding	36,400	-	(1,000)	35,400	1,040	34,360
Sub-total	<u>503,800</u>	<u>-</u>	<u>(12,600)</u>	<u>491,200</u>	<u>12,900</u>	<u>478,300</u>
<b>Certificates of Participation:</b>						
2010 Refunding Certificates	61,280	-	(6,545)	54,735	7,135	47,600
Unamortized Premium	6,013	-	(361)	5,652	361	5,291
Sub-total	<u>67,293</u>	<u>-</u>	<u>(6,906)</u>	<u>60,387</u>	<u>7,496</u>	<u>52,891</u>
Notes Payable	<u>1,728</u>	<u>-</u>	<u>(259)</u>	<u>1,469</u>	<u>260</u>	<u>1,209</u>
<b>Other Long-Term Liabilities:</b>						
Compensated Absences	3,672	3,675	(3,587)	3,760	1,503	2,257
Other Long-Term Liabilities	976	3,020	(2,994)	1,002	150	852
Sub-total	<u>4,648</u>	<u>6,695</u>	<u>(6,581)</u>	<u>4,762</u>	<u>1,653</u>	<u>3,109</u>
<b>Total Long-Term Liabilities</b>	<b><u>\$ 577,469</u></b>	<b><u>\$ 6,695</u></b>	<b><u>\$ (26,346)</u></b>	<b><u>\$ 557,818</u></b>	<b><u>\$ 22,309</u></b>	<b><u>\$ 535,509</u></b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(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
1995 Consolidated	December 1, 1995	40,000	(1)(3)	January 1, 2021	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)(3)	October 1, 2037	Variable
2011A-2 Refunding	April 15, 2011	40,370	(1)(3)	October 1, 2037	Variable
<b>Certificates of Participation:</b>					
2010 Certificates	February 23, 2010	85,145	(2)	March 1, 2032	3.80%

- (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.

**General Obligation Bonds**

The General Obligation Bonds were issued to fund property, water, sewer and recycled water facilities.

The annual debt service requirements for the General Obligation Bonds, including principal and interest payments (based on variable interest rates at June 30, 2016 ranging from 0.02% to 0.38% and the fixed rate for the 2010B BABS issue) are as follows (in thousands):

Fiscal Year	Principal	Interest	Hedging Investments, Net	BAB Federal Subsidy	Total
2017	\$ 12,900	\$ 12,790	\$ 7,305	\$ (3,776)	\$ 29,219
2018	13,100	12,741	7,305	(3,776)	29,370
2019	13,400	12,691	7,305	(3,776)	29,620
2020	13,700	12,640	3,214	(3,776)	25,778
2021	13,800	12,588	3,214	(3,776)	25,826
2022-2026	68,110	62,024	16,070	(18,813)	127,391
2027-2031	87,870	56,724	9,642	(17,500)	136,736
2032-2036	126,770	46,235	-	(14,540)	158,465
2036-2041	136,550	18,108	-	(5,719)	148,939
2042	5,000	50	-	-	5,050
<b>Total</b>	<b>\$ 491,200</b>	<b>\$ 246,591</b>	<b>\$ 54,055</b>	<b>\$ (75,452)</b>	<b>\$ 716,394</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

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(9) Long-Term Liabilities (Continued)**

**General Obligation Bonds (Continued)**

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 7.0% 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.

**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. 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
2017	\$ 7,135	\$ 2,677	\$ 9,812
2018	1,615	2,380	3,995
2019	1,795	2,299	4,094
2020	1,980	2,210	4,190
2021	2,170	2,110	4,280
2022-2026	14,060	8,723	22,783
2027-2031	20,815	4,572	25,387
2032	5,165	258	5,423
Subtotal	54,735	25,229	79,964
Plus: Unamortized premium	5,652	-	5,652
Total	<u>\$ 60,387</u>	<u>\$ 25,229</u>	<u>\$ 85,616</u>

**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 \$0.8 million at June 30, 2016. 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, 2016 was \$0.7 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(9) **Long-Term Liabilities (Continued)**

**Notes Payable (Continued)**

Amounts required to amortize notes payable at June 30, 2016 are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2017	\$ 260	\$ 48	\$ 308
2018	262	46	308
2019	263	45	308
2020	265	43	308
2021	72	9	81
2022-2026	347	21	368
Total	<u>\$ 1,469</u>	<u>\$ 212</u>	<u>\$ 1,681</u>

(10) **Unearned Revenue**

Unearned revenue at June 30, 2016 consisted of the following (in thousands):

Unearned revenue, current portion	\$ 525
Unearned revenue, net of current portion	<u>7,323</u>
Total	<u>\$ 7,848</u>

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, 2016 was \$0.5 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(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, 2016 are summarized as follows (in thousands):

Letter of Credit	Trustee	Amount	Expiration Date
Bank of America:			
2009 Series B Consolidated	U.S. Bank	\$ 65,727	July 15, 2019
Sumitomo Mitsui:			
1995 Consolidated	Bank of New York Mellon	12,279	July 14, 2017
2008 Series A Refunding	Bank of New York Mellon	53,277	July 14, 2017
U.S. Bank:			
1993 Consolidated	Bank of New York Mellon	33,546	November 7, 2018
2009 Series A Consolidated	U.S. Bank	65,727	December 22, 2020

**(12) Net Position**

Net position at June 30, 2016 consisted of the following (in thousands):

Net investment in capital assets:	
Property, plant and equipment, net	\$ 1,731,591
Less:	
Outstanding debt issued to construct capital assets:	
General obligation bonds	(491,200)
Certificates of participation	(60,387)
Notes payable	(1,469)
Total net investment in capital assets	<u>1,178,535</u>
Restricted net position:	
Restricted for water services	221,503
Restricted for sewer services	178,273
Total restricted net position	<u>399,776</u>
Total net position	<u><u>\$ 1,578,311</u></u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(13) Defined Benefit Pension Plan (PERS)**

**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, 2016, are summarized as follows:

Hire Date	Prior to October 1, 2012	On or after October 1, 2012 to December 31, 2013	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
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%	6.25%
Required employer contribution Rate	18.331%	18.331%	18.331%

**Employees Covered**

As of June 30, 2015, the following employees were covered by the benefit terms for the Plan:

Inactive Employees or Beneficiaries Currently Receiving Benefits	253
Inactive Employees Entitled to But not Yet Receiving Benefits	173
Active Employees	<u>339</u>
<b>Total</b>	<u><u>765</u></u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(13) Defined Benefit Pension Plan (PERS) (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.

**Actuarial Methods and Assumptions Used to Determine Total Pension Liability**

As of June 30, 2016, 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 Statement No. 68
Asset Valuation Method	Market Value of Assets
Actuarial Assumptions:	
Discount Rate	7.65%
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Investment Rate of Return	7.65% Net of Pension Plan Investment and Administrative Expenses; includes Inflation
Mortality Rate Table <sup>(1)</sup>	Derived using CalPERS' Membership Data for all Funds
Post Retirement Benefit Increase	Contract COLA up to 2.75% until Power Protection Allowance Floor on Purchasing Power applies, 2.75% thereafter

<sup>(1)</sup>The mortality table used was developed based on CalPERS' specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale BB.

All other actuarial assumptions used in the June 30, 2014 valuation were based on the results of an actuarial experience study for the period from 1997 to 2011, including updates to salary increase, mortality and retirement rates. The Experience Study report can be obtained at the CalPERS' website under Forms and Publications.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(13) Defined Benefit Pension Plan (PERS) (Continued)**

**Change in Assumptions**

According to GASB 68, the long-term expected rate of return should be determined net of pension plan investment expense but without reduction for pension plan administrative expense. The discount rate of 7.50 percent used for the June 30, 2014 measurement date was net of administrative expenses. The discount rate of 7.65 percent used for the June 30, 2015 measurement date is without reduction of pension plan administrative expense.

**Discount Rate**

The discount rate used to measure the total pension liability was 7.65 percent. To determine whether the municipal bond rate should be used in the calculation of a discount rate for each plan, CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing, none of the tested plans run out of assets. Therefore, the current 7.65 percent discount rate is appropriate and the use of the municipal bond rate calculation is not deemed necessary. The long-term expected discount rate of 7.65 percent is applied to all plans in the Public Employees Retirement Fund (PERF). The stress test results are presented in a detailed report called "GASB Crossover Testing Report" that can be obtained at the CalPERS' website under the GASB 68 section.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of 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. Such cash flows were developed assuming that both members and employers will make their required contributions on time and as scheduled in all future years. Using historical returns of all the funds' asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11-60 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 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 equivalent to the single equivalent rate calculated above and rounded down to the nearest one quarter of one percent.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(13) Defined Benefit Pension Plan (PERS) (Continued)**

The table below reflects long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These rates of return are net of administrative expenses.

Asset Class	New Strategic Allocation	Real Return Years 1 – 10 <sup>(1)</sup>	Real Return Years 11+ <sup>(2)</sup>
Global Equity	51.0%	5.25%	5.71%
Global Fixed Income	19.0%	0.99%	2.43%
Inflation Sensitive	6.0%	0.45%	3.36%
Private Equity	10.0%	6.83%	6.95%
Real Estate	10.0%	4.50%	5.13%
Infrastructure and Forestland	2.0%	4.50%	5.09%
Liquidity	2.0%	(0.55)%	(1.05)%
Total	<u>100%</u>		

<sup>(1)</sup> An expected inflation of 2.5% used for this period

<sup>(2)</sup> An expected inflation of 3.0% used for this period

In addition to the CalPERS' pension plan investments, the following table reflects long-term expected real rate of return by asset class of the Benefits Trust investments. The same method and assumptions used by CalPERS were also applied to the following table.

Asset Class	Strategic Allocation	Real Return Years 1 – 10 <sup>(1)</sup>	Real Return Years 11+ <sup>(2)</sup>
Global Equity	68.0%	5.25%	5.71%
Global Fixed Income	23.0%	0.99%	2.43%
Liquidity	9.0%	(0.55)%	(1.05)%
Total	<u>100%</u>		

<sup>(1)</sup> An expected inflation of 2.5% used for this period

<sup>(2)</sup> An expected inflation of 3.0% used for this period

**Pension Plan Fiduciary Net Position**

The plan fiduciary net position (assets) disclosed in the GASB report may differ from the plan assets reported in the actuarial valuation report due to several reasons. First, CalPERS must keep reserves for deficiencies and fiduciary self-insurance. These amounts are excluded for rate setting purposes in the funding actuarial valuation report while required to be included for GASB reporting purposes. In addition, differences may result from early CAFR closing and final reconciled reserves.

**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)
Balance at June 30, 2015	\$ 219,410	\$ 220,977	\$ (1,567)
Changes	8,386	4,896	3,490
Balance at June 30, 2016	<u>\$ 227,796</u>	<u>\$ 225,873</u>	<u>\$ 1,923</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(13) Defined Benefit Pension Plan (PERS) (Continue)**

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

The following presents the net pension liability of the Plan (in thousands), calculated using the discount rate of 7.65 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 (6.65 percent) or 1 percentage-point higher (8.65 percent) than the current rate:

	Discount Rate - 1% (6.65%)	Current Discount Rate (7.65%)	Discount Rate + 1% (8.65%)
Plan's Net Pension Liability/(Asset)	\$ 33,507	\$ 1,923	\$ (24,190)

**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:

Difference between Projected and Actual Earnings	5 year straight-line amortization
All Other Amounts	Straight-line amortization over the average expected remaining service lives of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period

The expected average remaining service lifetime (EARSL) is calculated by dividing the total future service years by the total number of plan participants (active, inactive, and retired).

The EARSL for the Plan for the fiscal year ended June 30, 2016 was 4.3 years, which was obtained by dividing the total service years of 3,146 (the sum of remaining service lifetimes of the active employees) by 724 (the total number of participants: active, inactive, and retired). Note that inactive employees and retirees have remaining service lifetimes equal to 0. Also note that total future service is based on the members' probability of decrementing 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, 2016  
(Continued)

(13) **Defined Benefit Pension Plan (PERS) (Continued)**

**Pension Expense and Deferred Outflows and Deferred Inflows of Resources Related to Pensions**  
For the fiscal year ended June 30, 2016, the District recognized pension income of \$458,089. At June 30, 2016, the District reported deferred outflows and deferred inflows of resources related to pensions from the following sources (in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension Contributions made Subsequent to the Measurement Date	\$ 6,866	\$ -
Differences between Expected and Actual Experiences	407	-
Changes in Assumptions	-	(3,167)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	-	(1,242)
Total	\$ 7,273	\$ (4,409)

The amount above is net of deferred inflows of resources recognized as pension expense / (income) in the fiscal year ended June 30, 2016.

\$6.9 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, 2017. \$4.0 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):

Fiscal Year	Amount
2017	\$ (2,058)
2018	(2,058)
2019	(2,058)
2020	2,172

**Funding of CalPERS Plan**

The following Schedule of Funding Progress shows the recent history of the plan assets (including the Benefits Trust), total liability, their relationship, and the relationship of the unfunded liability to payroll.

Fiscal Year	Total Liability	Plan Assets	Net Liability/ (Asset)	Funded Ratio	Annual Covered Payroll
06/30/14	\$ 207,663	\$ 187,209	\$ 20,454	90.2%	\$ 25,499
06/30/15	219,410	220,977	(1,567)	100.7	26,264
06/30/16	227,796	225,873	1,923	99.2	27,596

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(14) Other Post Employment Benefits**

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 \$125 per month per participating retiree.
- **Retiree Health Cost Benefits:** The District also administers a single-employer defined benefit health cost reimbursement plan 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: 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 10 years of service. The District reimburses retirees for eligible healthcare costs of up to \$300 per month (for retirees with at least 10 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 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.

Membership of the plan consisted of the following at July 1, 2014, the date of latest actuarial valuation:

	PEMHCA	Retiree Health Costs Reimbursement	Retiree Death Benefit Only
Retirees and beneficiaries receiving benefits	134	52	127
Terminated plan members entitled to but not yet receiving benefits	-	-	-
Active plan members	309	309	213
Total	443	361	340

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(14) Other Post Employment Benefits (Continued)**

The District reports the financial activity of the three plans in its basic financial statements. No separate benefit plan report is issued.

**Annual OPEB Cost and Net OPEB Obligation**

The required contributions for the District's various other post-employment benefits are based on projected pay-as-you go financing requirements, with an additional amount to prefund benefits as determined annually the District's Board of Directors.

The District's annual OPEB expense is based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) as a level dollar open period not to exceed 30 years. The following table shows the components of the District's annual OPEB cost for the fiscal year ended June 30, 2016, the amount actually contributed for each OPEB benefit, and the changes in the District's net OPEB obligation:

	PEMHCA	Retiree Health Costs Reimbursement	Retiree Death Benefit Only	Total
Annual OPEB cost (expense):				
Annual required contribution	\$ 383,818	\$ 315,283	\$ 26,930	\$ 726,031
Interest on net OPEB obligation	66,287	18,624	29,343	114,254
Adjustment to annual required contribution	(95,834)	(26,925)	(42,423)	(165,182)
Annual OPEB cost (expense)	354,271	306,982	13,850	675,103
Contribution made	(118,936)	(305,749)	(27,380)	(452,065)
Increase (Decrease) in net OPEB obligation	235,335	1,233	(13,530)	223,038
Net OPEB obligation beginning of year	1,657,172	465,589	733,586	2,856,347
Net OPEB obligation end of year	<u>\$ 1,892,507</u>	<u>\$ 466,822</u>	<u>\$720,056</u>	<u>\$ 3,079,385</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(14) **Other Post Employment Benefits (Continued)**

**Annual OPEB Cost and Net OPEB Obligation (Continued)**

The District's annual OPEB cost, the percentage of annual OPEB cost contributed to the plans, and the net OPEB obligation for the fiscal year ended June 30, 2016 and the two preceding years were as follows:

*Schedule of Employer Contributions*

Plan	Fiscal Year Ended	Annual OPEB Cost	Percentage Contributed	Net OPEB Obligation
PEMHCA	6/30/2014	\$ 305,269	32.48%	\$ 1,404,151
	6/30/2015	358,782	29.48%	1,657,172
	6/30/2016	354,271	33.57%	1,892,507
Retiree Health	6/30/2014	305,098	108.37%	487,159
	6/30/2015	306,597	107.04%	465,589
	6/30/2016	306,982	99.60%	466,822
Retiree Death Benefit Only	6/30/2014	12,893	93.62%	733,984
	6/30/2015	13,843	102.87%	733,586
	6/30/2016	13,850	197.69%	720,056
Total - All Plans	6/30/2014	623,260	67.67%	2,625,294
	6/30/2015	679,222	70.89%	2,856,347
	6/30/2016	675,103	66.96%	3,079,385

**Funded Status and Progress**

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events in the future. Examples include assumptions about employee turnover, retirement, mortality, and economic assumptions regarding healthcare inflation and interest rates. Amounts determined regarding the funded status of the plan and the annual required contributions of the District are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

(14) **Other Post Employment Benefits (Continued)**

**Funded Status and Progress (Continued)**

The Schedule of Funding Progress below shows the recent history of the actuarial value of assets, actuarial accrued liability, their relationship, and the relationship of the unfunded accrued liability to payroll.

Plan	Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
PEMHCA	1/1/2011	\$ -	\$ 2,484	\$ 2,484	0.00%	\$ 24,695	10.1%
	7/1/2012	-	3,202	3,202	0.00%	24,836	12.9%
	7/1/2014	-	3,773	3,773	0.00%	27,290	13.8%
Retiree	1/1/2011	-	2,541	2,541	0.00%	24,695	10.3%
Health Costs	7/1/2012	-	3,009	3,009	0.00%	24,836	12.1%
Reimbursement	7/1/2014	-	3,044	3,044	0.00%	27,290	11.2%
Retiree Death	1/1/2011	-	365	365	0.00%	24,695	1.5%
Benefit Only	7/1/2012	-	439	439	0.00%	24,836	1.8%
	7/1/2014	-	456	456	0.00%	27,290	1.7%

**Actuarial Methods and Assumptions**

The actuarial methods and assumptions used include techniques designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial assets, consistent with the long-term perspective of the calculations. The actuarial cost method used for determining the benefit obligations is the Projected Unit Credit Cost Method. The actuarial assumptions included a 4.0% investment rate of return, which is the assumed rate of the expected long-term investment returns on plan assets calculated based on the funded level of the plan at the valuation date, and an annual healthcare cost trend rate of 8.0% initially, reduced by decrements of 1% per year to an ultimate rate of 5% after the third year. Both rates included a 2.5% inflation assumption. The UAAL is being amortized as a level dollar open period over 30 years. It is assumed the District's payroll will increase 3% per year.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(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. Federal legislation requires contributions of at least 7.5% to a retirement plan. For the year ended June 30, 2016, the District's payroll covered by the plan was \$150,340. The District made no employee contributions. Employees contributed \$11,275 (7.5% of current covered payroll) for the year ended June 30, 2016.

**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 2016 is \$18,000. After 2008, the limit is being indexed to inflation in \$500 increments.

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. During the fiscal year ended June 30, 2016, the District contributed \$779,689 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, 2016  
(Continued)

**(16) Commitments and Contingencies**

**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 CORF payments to OCSD for the year ended June 30, 2016 totaled \$3.6 million. The District's share of the jointly funded CORF and capital improvements is included in capital assets in the District's basic financial statements. 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. The District, with OCSD, negotiated an agreement as of April 2010, 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, 2016 with a retroactive component for the lease of capacity back to July 1, 2008. The capacity lease for the fiscal year ended June 30, 2016, estimated at \$2.1 million, is included in Sewer Services as an operating expense. As of June 30, 2016, the District had a payable of \$5.1 million to OCSD and is reflected as accounts payable and accrued expenses in the District's basic financial statements.

**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.

**Complaint against OCWD**

The Orange County Water District (OCWD), the agency responsible for managing the Orange County groundwater basin, to produce other local groundwater and to have sufficient capacity to meet demands during supply interruptions. OCWD annually establishes the District's basin production percentage (BPP), which is the amount of groundwater, as a percentage of total water demands, that groundwater producers can pump from the Orange County groundwater basin without incurring additional assessments. Currently, OCWD calculates total water demands without considering recycled water sales. The District sells significant quantities of recycled water to its customers. Because OCWD does not consider recycled water sales in calculating the District's total water demands, OCWD considers the District's total water demands to be lower than they would be if recycled water sales were counted. As a result, the amount of groundwater that the District can pump from the Orange County groundwater basin without incurring additional assessments is lower than it would be if recycled water sales were considered. In June 2016, the District filed a complaint (the Complaint) against OCWD in the Superior

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(16) Commitments and Contingencies (Continued)**

**Complaint against OCWD (Continued)**

Court for the State of California, County of Orange, seeking an order determining that OCWD's BPP calculation methodology is unlawful. In August 2016, OCWD filed an answer to the Complaint denying all substantive allegations. In addition, the City of Anaheim, three local water agencies and one private water company that produce groundwater from the Orange County groundwater basin have filed an answer and seek to join the litigation as interested parties. The District expects the discovery process to commence with respect to the litigation in the coming months. If the Complaint is successful, the District may recover past assessments and would be able to pump additional amounts of groundwater without incurring additional assessments, thereby reducing the groundwater pumping charges that the District pays to OCWD.

**(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 is provided through participation in the CSAC-EIA. Pollution and legal liability coverage for the Irvine Desalter Project is provided by a policy with Illinois Union 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 pay-outs), 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. Settlements have not exceeded excess coverage for each of the past three fiscal years.

Changes in the reported liability resulted from the following:

Fiscal Year	Liability Beginning of Year	Claims and Changes in Estimates	Claim Payments	Liability End of Year	Due within One Year	Due in more than One Year
2015	\$ 1,176	\$ 236	\$ (216)	\$ 1,196	\$ 428	\$ 768
2016	1,196	2	(36)	1,162	411	751

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2016  
(Continued)

**(18) Restatement of Net Position**

During the fiscal year ended June 30, 2016, the District recorded the following prior period adjustments (in thousands):

Net position at beginning of year	\$ 1,354,663
Prior period adjustments:	
Implementation of GASB 72	<u>150,258</u>
Net position at beginning of year, as restated	<u>\$ 1,504,921</u>

The District implemented GASB 72, *Fair Value Measurement and Application* resulting in recording the District's real estate investments at fair value as a prior period adjustment. This Statement addresses accounting and financial reporting issues related to fair value measurements. The requirements of this Statement are effective for financial statements for fiscal years beginning after June 15, 2015. The Statement was implemented effective July 1, 2015.

**(19) Subsequent Events**

**Issuance of Irvine Ranch Water District Service Corporation Certificates of Participation, Series 2016**

On September 1, 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 refund the outstanding principal amount of the Certificates of Participation Refunding Series 2010.

**Issuance of Irvine Ranch Water District General Obligation Bonds, Series 2016**

On October 12, 2016, the Irvine Ranch Water District issued \$103.4 million of General Obligation Bonds Series 2016 (the Series 2016) to finance the cost of certain capital improvements.

**Irvine Ranch Water District**  
 Required Supplementary Information  
 For the Fiscal Year Ended June 30, 2016

(1) **Schedule of Changes in the Net Pension Liability and Related Ratio (in thousands)** <sup>(1)</sup>

	Measurement Date: June 30,	
	2014	2015
<b>Total Pension Liability</b>		
Service Cost	\$ 3,942	\$ 4,005
Interest	15,436	16,343
Changes of Benefit Terms	-	(4,127)
Changes of Assumptions	-	530
Benefit Payments, Including Refunds of Employee Contributions	(7,631)	(8,365)
Net Change in Total Pension Liability	11,747	8,386
Total Pension Liability - Beginning	207,663	219,410
<b>Total Pension Liability – Ending (a)</b>	<b>\$ 219,410</b>	<b>\$ 227,796</b>
<b>Plan Fiduciary Net Position</b>		
Contributions – Employer	\$ 6,566	\$ 6,638
Contributions – Employee	2,712	2,170
Investment Income	32,452	4,734
Administrative Expense	(331)	(281)
Benefit Payments, Including Refunds of Employee Contributions	(7,631)	(8,365)
Net Change in Fiduciary Net Position	33,768	4,896
Plan Fiduciary Net Position – Beginning	187,209	220,977
<b>Plan Fiduciary Net Position – Ending (b)</b>	<b>220,977</b>	<b>225,873</b>
<b>Plan Net Pension Liability – Ending (a) - (b)</b>	<b>\$ (1,567)</b>	<b>\$ 1,923</b>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	100.71%	99.16%
Covered-Employee Payroll	\$ 26,264	\$ 27,596
Plan Net Pension Liability as a Percentage of Covered-Employee Payroll	-5.97%	6.97%

<sup>(1)</sup> 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.

**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, 2014. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit.

**Changes of Assumptions:** The discount rate was changed from 7.5 percent (net of administrative expense) to 7.65 percent.

**Irvine Ranch Water District**  
 Required Supplementary Information  
 For the Fiscal Year Ended June 30, 2016  
 (Continued)

(2) **Schedule of Contributions (in thousands)** <sup>(1)</sup>

	<u>2015</u>	<u>2016</u>
Actuarially Determined Contribution Contributions in Relation to the	\$ 4,524	\$ 4,926
Actuarially Determined Contribution Contribution Deficiency (Excess)	<u>(6,638)</u>	<u>(6,866)</u>
	<u>\$ (2,114)</u>	<u>\$ (1,940)</u>
Covered-Employee Payroll Contributions as a Percentage of Covered-Employee Payroll	\$ 27,596 24.05%	\$ 27,863 24.64%

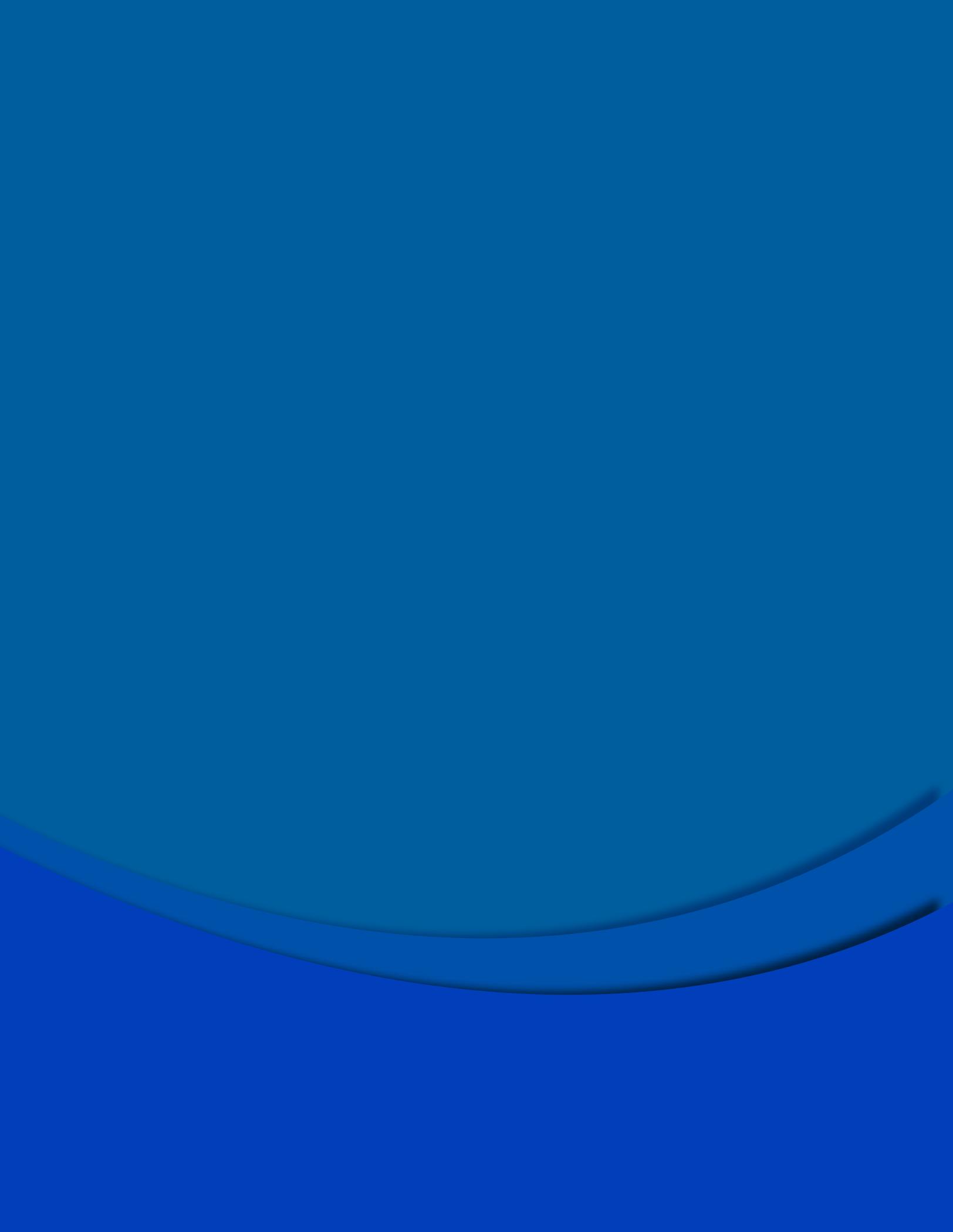
<sup>(1)</sup> Historical information is required only for measurement periods from which GASB 68 is applicable. Fiscal Year 2015 was the first year of GASB 68 implementation.

**Notes to Schedule of Contributions**

The actuarial methods and assumptions used to set the actuarially determined contributions for the fiscal year ended June 30, 2016 were from the June 30, 2013 public agency valuations.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	Level Percent of Payroll
Asset Valuation Method	Actuarial value of Assets
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment Rate of Return	7.50% Net of Pension Plan Investment and Administrative Expenses; includes Inflation
Retirement Age	The probabilities of Retirement are based on the 2010 CalPERS Experience Study for the period from 1997 to 2007.
Mortality	The probabilities of mortality are based on the 2010 CalPERS Experience Study for the period from 1997 to 2007. Pre-retirement and Post-retirement mortality rates include 5 years of projected mortality improvement using Scale AA published by the Society of Actuaries.

# STATISTICAL SECTION



# Statistical Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2016

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>				
	2007	2008	2009	2010	2011
<b>Assets</b>					
Current & other assets	\$ 1,088.9	\$ 1,103.8	\$ 1,224.1	\$ 1,172.3	\$ 1,300.0
Capital assets	1,224.3	1,346.1	1,423.1	1,396.6	1,430.3
<b>Total assets</b>	<b>2,313.2</b>	<b>2,449.9</b>	<b>2,647.2</b>	<b>2,568.9</b>	<b>2,730.3</b>
<b>Deferred Outflow of Resources</b>					
Deferred refunding charges	-	-	-	-	-
Accumulated decrease in fair value of swaps agreements	-	-	-	37.4	32.7
Pension contributions	-	-	-	-	-
<b>Total deferred outflow of resources</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37.4</b>	<b>32.7</b>
<b>Liabilities</b>					
Current and other liabilities	95.3	96.5	99.4	67.3	97.7
Long-term liabilities	1,022.2	1,074.7	1,190.8	1,204.3	1,323.7
<b>Total liabilities</b>	<b>1,117.5</b>	<b>1,171.2</b>	<b>1,290.2</b>	<b>1,271.6</b>	<b>1,421.4</b>
<b>Deferred Inflows of Resources</b>					
Pension actuarial	-	-	-	-	-
<b>Net Position</b>					
Net investment in capital assets	927.6	977.7	994.3	929.5	900.6
Restricted for water services	229.2	253.8	271.7	249.8	213.6
Restricted for sewer services	38.9	47.2	91.0	155.4	227.4
<b>Total net position</b>	<b>\$ 1,195.7</b>	<b>\$ 1,278.7</b>	<b>\$ 1,357.0</b>	<b>\$ 1,334.7</b>	<b>\$ 1,341.6</b>

# Irvine Ranch Water District

Net Position  
For the Past Ten Fiscal Years  
(in millions)  
(Continued)

	<b>Fiscal Year</b>				
	2012	2013 <sup>(1)</sup>	2014 <sup>(1)</sup>	2015 <sup>(2)</sup>	2016 <sup>(3)</sup>
<b>Assets</b>					
Current & other assets	\$ 1,167.0	\$ 1,128.2	\$ 462.7	\$ 332.9	\$ 456.6
Capital assets	1,508.8	1,506.1	1,567.5	1,647.4	1,731.6
<b>Total assets</b>	<b>2,675.8</b>	<b>2,634.3</b>	<b>2,030.2</b>	<b>1,980.3</b>	<b>2,188.2</b>
<b>Deferred Outflow of Resources</b>					
Deferred refunding charges	-	9.8	1.6	1.4	1.2
Accumulated decrease in fair value of swaps agreements	53.0	37.5	36.1	35.3	41.2
Pension contributions	-	-	-	6.6	6.9
Pension actuarial	-	-	-	-	0.4
<b>Total deferred outflow of resources</b>	<b>53.0</b>	<b>47.3</b>	<b>37.7</b>	<b>43.3</b>	<b>49.7</b>
<b>Liabilities</b>					
Current and other liabilities	99.0	672.7	54.9	51.5	65.4
Long-term liabilities	1,281.8	647.7	623.4	602.8	589.8
<b>Total liabilities</b>	<b>1,380.8</b>	<b>1,320.4</b>	<b>678.3</b>	<b>654.3</b>	<b>655.2</b>
<b>Deferred Inflows of Resources</b>					
Pension actuarial	-	-	-	14.6	4.4
<b>Net Position</b>					
Net investment in capital assets	943.1	918.1	981.3	1,074.6	1,178.5
Restricted for water services	179.3	185.4	165.1	148.6	221.5
Restricted for sewer services	225.6	257.7	243.2	131.5	178.3
<b>Total net position</b>	<b>\$ 1,348.0</b>	<b>\$ 1,361.2</b>	<b>\$ 1,389.6</b>	<b>\$ 1,354.7</b>	<b>\$ 1,578.3</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.

# Irvine Ranch Water District

## Changes in Net Position For the Past Ten Fiscal Years (in thousands)

	<b>Fiscal Year</b>				
	2007	2008	2009	2010	2011
<b>Operating Revenues</b>					
Water sales and service charges	\$ 45,138	\$ 48,516	\$ 50,940	\$ 51,268	\$ 54,796
Sewer sales and service charges	37,649	39,811	41,157	45,344	45,375
Total operating revenues	<u>82,787</u>	<u>88,327</u>	<u>92,097</u>	<u>96,612</u>	<u>100,171</u>
<b>Operating Expenses</b>					
<b>Water</b>					
Water services	34,979	39,029	42,273	43,591	45,961
General and administrative	10,267	11,257	12,536	13,349	12,327
<b>Sewer</b>					
Sewer services	24,570	27,211	28,696	30,992	33,382
General and administrative	6,328	7,259	7,712	6,651	6,569
Depreciation	28,449	31,595	34,699	39,444	43,592
Total operating expenses	<u>104,593</u>	<u>116,351</u>	<u>125,916</u>	<u>134,027</u>	<u>141,831</u>
Operating income (loss)	<u>(21,806)</u>	<u>(28,024)</u>	<u>(33,819)</u>	<u>(37,415)</u>	<u>(41,660)</u>
<b>Nonoperating Revenues (Expenses)</b>					
Property taxes	30,667	34,245	36,240	38,392	38,679
Investment income	10,768	10,674	4,365	2,191	2,599
Increase (decrease) in fair value of investments	(3,996)	26,976	9,837	(7,782)	(20,172)
JPA investment income	61,793	59,854	57,676	55,726	53,708
Real estate income	9,483	10,478	10,792	9,701	9,719
Increase (decrease) in fair value of real estate investments	-	-	-	-	-
Other income	10,457	11,130	9,918	10,706	7,987
Interest expense	(12,762)	(8,515)	(6,061)	(9,962)	(14,174)
JPA interest expense	(58,404)	(56,616)	(54,686)	(51,530)	(41,264)
Real estate expense	(4,562)	(5,149)	(5,698)	(6,186)	(6,004)
Other expenses	(883)	(2,288)	(1,535)	(1,286)	(989)
Total nonoperating revenue (expenses)	<u>42,561</u>	<u>80,789</u>	<u>60,848</u>	<u>39,970</u>	<u>30,089</u>
Income (loss) before capital contributions	20,755	52,765	27,029	2,555	(11,571)
Contributed capital assets	52,672	29,319	32,517	17,963	18,506
Increase (decrease) in net position	<u>73,427</u>	<u>82,084</u>	<u>59,546</u>	<u>20,518</u>	<u>6,935</u>
Net position at beginning of year	1,112,799	1,195,761	1,278,703	1,357,046	1,334,666
SCWD Retained Earnings at 6/30/06	9,535	-	-	-	-
OPA Net Assets at 6/1/08	-	858	-	-	-
Prior period adjustments	-	-	18,797	(42,898)	-
Net position at end of year	<u>\$ 1,195,761</u>	<u>\$ 1,278,703</u>	<u>\$ 1,357,046</u>	<u>\$ 1,334,666</u>	<u>\$ 1,341,601</u>

# Irvine Ranch Water District

## Changes in Net Position For the Past Ten Fiscal Years (in thousands) (Continued)

	<b>Fiscal Year</b>				
	2012	2013	2014	2015 <sup>(1)</sup>	2016 <sup>(2)</sup>
<b>Operating Revenues</b>					
Water sales and service charges	\$ 57,558	\$ 62,565	\$ 66,321	\$ 70,110	\$ 76,692
Sewer sales and service charges	49,234	53,085	58,109	62,808	67,682
Total operating revenues	<u>106,792</u>	<u>115,650</u>	<u>124,430</u>	<u>132,918</u>	<u>144,374</u>
<b>Operating Expenses</b>					
<b>Water</b>					
Water services	44,883	51,163	57,624	57,978	57,499
General and administrative	12,305	14,619	13,660	9,319	11,827
<b>Sewer</b>					
Sewer services	33,086	38,189	37,715	54,575	40,413
General and administrative	7,792	8,048	8,612	5,826	7,625
Depreciation	41,378	47,539	46,809	51,015	58,330
Total operating expenses	<u>139,444</u>	<u>159,558</u>	<u>164,420</u>	<u>178,713</u>	<u>175,694</u>
Operating income (loss)	<u>(32,652)</u>	<u>(43,908)</u>	<u>(39,990)</u>	<u>(45,795)</u>	<u>(31,320)</u>
<b>Nonoperating Revenues (Expenses)</b>					
Property taxes	38,062	41,068	42,751	42,431	46,303
Investment income	3,132	224	1,079	1,214	1,249
Increase (decrease) in fair value of investments	(23,586)	(29,180)	(16,177)	(28)	(32)
JPA investment income	51,530	49,178	29,522	-	-
Real estate income	11,039	10,789	11,899	12,518	13,056
Increase (decrease) in fair value of real estate investments	-	-	-	-	5,597
Other income	6,141	8,323	10,974	7,899	7,837
Interest expense	(16,924)	(16,770)	(15,836)	(13,903)	(15,415)
JPA interest expense	(39,603)	(28,884)	(17,166)	-	-
Real estate expense	(6,016)	(6,047)	(6,139)	(6,251)	(4,363)
Other expenses	(10,713)	(6,110)	(7,163)	(9,752)	(2,800)
Total nonoperating revenue (expenses)	<u>13,062</u>	<u>22,591</u>	<u>33,744</u>	<u>34,128</u>	<u>51,432</u>
Income (loss) before capital contributions	<u>(19,590)</u>	<u>(21,317)</u>	<u>(6,246)</u>	<u>(11,667)</u>	<u>20,112</u>
Contributed capital assets	25,948	34,535	34,684	42,540	53,278
Increase (decrease) in net position	<u>6,358</u>	<u>13,218</u>	<u>28,438</u>	<u>30,873</u>	<u>73,390</u>
Net position at beginning of year	1,341,601	1,347,959	1,361,177	1,389,615	1,354,663
SCWD Retained Earnings at 6/30/06	-	-	-	-	-
OPA Net Assets at 6/1/08	-	-	-	-	-
Prior period adjustments	-	-	-	(65,825)	150,258
Net position at end of year	<u>\$ 1,347,959</u>	<u>\$ 1,361,177</u>	<u>\$ 1,389,615</u>	<u>\$ 1,354,663</u>	<u>\$ 1,578,311</u>

Source: Irvine Ranch Water District 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 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.

**Irvine Ranch Water District**  
 Water Sold By Type of Customer (in Acre Feet)  
 For the Past Ten Fiscal Years

	<b>Fiscal Year</b>				
	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Residential	34,097	33,771	34,189	31,721	31,127
Commercial	8,710	8,710	8,382	7,586	7,632
Industrial	5,438	5,353	5,009	4,711	4,733
Public Authority	2,474	2,588	2,571	2,293	2,305
Construction & Temporary	696	513	133	127	174
Treated -					
Landscape Irrigation	6,249	6,039	5,789	4,712	4,252
Treated -					
Agricultural	1,009	820	563	210	183
Untreated -					
Agricultural	7,583	6,211	6,452	5,024	3,025
Recycled -					
Landscape/Agricultural	24,624	24,564	24,415	20,951	20,147
<b>Total</b>	<b>90,880</b>	<b>88,569</b>	<b>87,503</b>	<b>77,335</b>	<b>73,578</b>

**Irvine Ranch Water District**  
 Water Sold By Type of Customer (in Acre Feet)  
 For the Past Ten Fiscal Years  
 (Continued)

	<b>Fiscal Year</b>				
	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Residential	32,262	33,166	34,068	32,375	28,573
Commercial	8,021	8,353	8,803	8,391	8,377
Industrial	4,713	4,783	4,891	6,233	5,118
Public Authority	2,373	2,458	2,458	2,583	2,234
Construction & Temporary	275	378	739	863	1,230
Treated -					
Landscape Irrigation	4,741	5,316	5,671	5,327	3,843
Treated -					
Agricultural	229	206	202	241	116
Untreated -					
Agricultural	2,204	2,543	3,075	2,306	2,100
Recycled -					
Landscape/Agricultural	25,011	28,259	30,021	32,139	26,386
<b>Total</b>	<b>79,829</b>	<b>85,462</b>	<b>89,928</b>	<b>90,458</b>	<b>77,977</b>

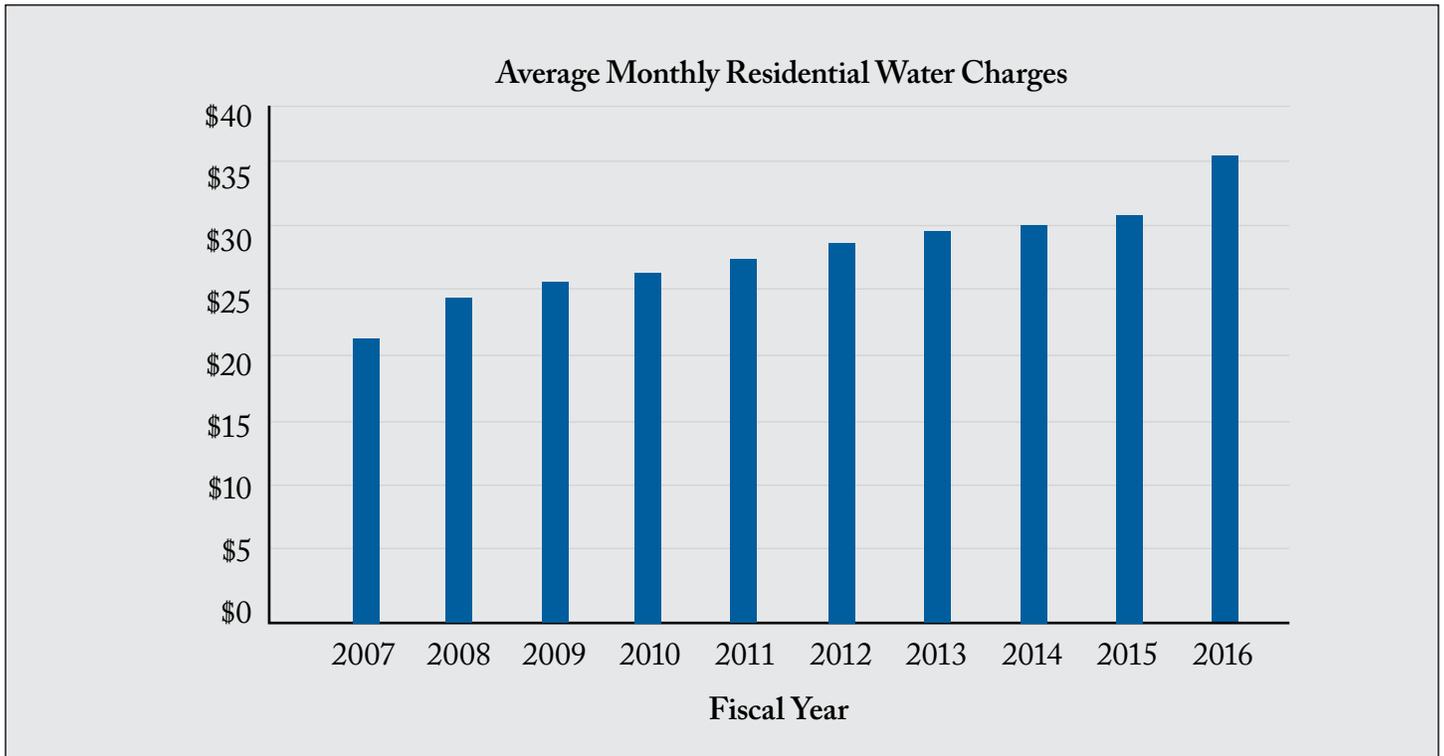
Source: Irvine Ranch Water District

# 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
2007	\$ 6.75	\$ 0.91	\$ 21.85
2008	7.50	0.98	23.86
2009	7.50	1.07	25.48
2010	7.75	1.15	26.53
2011	8.00	1.21	27.38
2012	8.75	1.22	28.23
2013	9.30	1.24	28.98
2014	9.85	1.27	29.83
2015	10.50	1.34	30.94
2016	10.30	1.62	35.38



Source: Irvine Ranch Water District

Note:

<sup>(1)</sup>Water rates are for the Irvine Ranch rate area which comprises approximately 85 percent of the total District. The water charge to the average residential customer is based upon an average of 18 ccf per month. The first 8 ccf are at the District's low volume rate, which is \$0.36 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	2016			2007		
	Total Paid	Rank	Percentage of Water Sales Revenues	Total Paid	Rank	Percentage of Water Sales Revenues
TIC-Irvine Apartment Communities	\$ 6,840,148	1	8.92%	\$ 2,665,191	1	5.90%
University of California - Irvine	1,323,149	2	1.73%	1,123,757	4	2.49%
Jazz Semiconductor	982,407	3	1.28%	593,681	5	1.32%
B Braun Medical Inc	860,399	4	1.12%			
Allergan Sales, LLC	333,733	5	0.44%			
City of Irvine	320,057	6	0.42%	1,656,406	3	3.67%
ERP Operating LP	268,513	7	0.35%			
Royalty Carpet Mills	239,695	8	0.31%			
City of Lake Forest	223,565	9	0.29%			
Irvine Unified School District	202,414	10	0.26%	402,702	10	0.89%
The Irvine Company - Agricultural Division				1,872,642	2	4.15%
The Irvine Company - Spectrum Office				574,185	6	1.27%
County of Orange				435,588	7	0.96%
Woodbridge Village Association				424,614	8	0.94%
Hines Nurseries				404,068	9	0.90%
<b>Total</b>	<b>\$ 11,594,080</b>		<b>15.12%</b>	<b>\$ 10,152,834</b>		<b>22.49%</b>

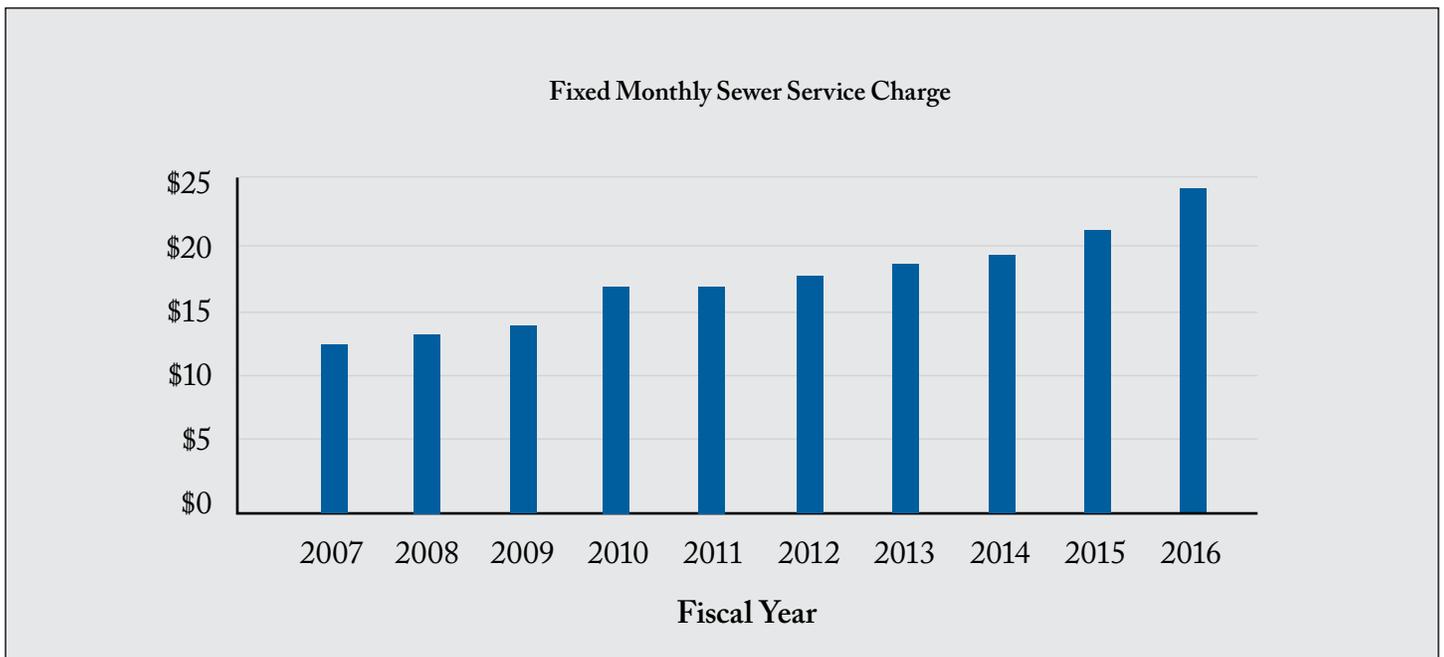
Source: Irvine Ranch Water District

# Irvine Ranch Water District

## Sewer Rates<sup>(1)</sup>

For the Past Ten Fiscal Years

<u>Fiscal Year</u>	<u>Fixed Monthly Service Charge</u>
2007	\$ 13.05
2008	13.65
2009	13.80
2010	16.60
2011	16.65
2012	16.90
2013	17.20
2014	18.40
2015	20.50
2016	24.05



Source: Irvine Ranch Water District

Note:

<sup>(1)</sup> Fixed monthly service charge for fiscal year 2006 is for the Irvine Ranch rate area only (excluding Los Alisos). For fiscal years 2007 and later, rates are uniform for all areas. 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 Sewer Customers  
Current Year and Nine Years Ago

Customer Name	2016			2007		
	Total Paid	Rank	Percentage of Sewer Sales Revenues	Total Paid	Rank	Percentage of Sewer Sales Revenues
TIC-Irvine Apartment Communities	\$ 10,980,957	1	16.22%	\$ 2,331,263	1	6.29%
City of Irvine	2,067,260	2	3.05%			
University of California - Irvine	1,848,176	3	2.73%	672,665	2	1.81%
B Braun Medical Inc	743,310	4	1.10%			
Irvine Unified School District	546,002	5	0.81%			
Caltrans District 12	417,388	6	0.62%			
Orange County Produce	386,681	7	0.57%			
Royal Carpet Mills	377,990	8	0.56%	277,107	3	0.75%
Heritage Fields	342,817	9	0.51%			
Crystal Cove Community Assn	327,704	10	0.48%			
Allergan Sales, LLC				182,223	4	0.49%
The Irvine Company - Spectrum Office				179,463	5	0.48%
Sicor Pharmaceuticals				176,465	6	0.48%
ERP Operating LP				156,238	7	0.42%
Airport Complex				130,196	8	0.35%
Maguire Properties				93,350	9	0.25%
Maruchan Inc				92,508	10	0.25%
<b>Total</b>	<b>\$ 18,038,285</b>		<b>26.65%</b>	<b>\$ 4,291,478</b>		<b>11.57%</b>

Source: Irvine Ranch Water Dis

**Irvine Ranch Water District**  
**Ad Valorem Property Tax Rates<sup>(2)</sup>**  
**For the Past Ten Fiscal Years**

Improvement District	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
112	\$ N/A	\$ N/A	\$ N/A	\$0.07920	\$0.07920	\$0.03168	\$0.03168	\$0.03168	\$0.03000	\$0.03000
113 <sup>(1)</sup>	0.01920	0.01920	0.01920	0.01980	0.01980	0.05940	0.05940	0.05940	0.03000	0.03000
120	0.01168	0.01298	0.01298	0.01311	0.00001	N/A	N/A	N/A	N/A	N/A
121	0.00001	0.00001	0.00001	0.00001	0.01311	0.01311	0.01311	0.01311	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01300	0.01300
130	0.00001	0.00500	0.00500	0.00680	0.00680	0.00680	0.00680	0.00680	N/A	N/A
135	0.00842	0.00842	0.00842	0.00842	0.00842	0.00421	0.00421	0.00421	N/A	N/A
140	0.00001	0.00001	0.00001	0.00001	0.00001	0.01000	0.01000	0.01000	N/A	N/A
150	0.00001	0.00780	0.00780	0.00990	0.00990	0.01980	0.01980	0.01980	N/A	N/A
153	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001
160	0.01168	0.01648	0.01648	0.01758	0.00001	N/A	N/A	N/A	N/A	N/A
161	0.00001	0.00001	0.00001	0.00001	0.01758	0.01758	0.01758	0.01758	N/A	N/A
182	0.00808	0.01300	0.01300	0.01350	0.01350	0.02700	0.02700	0.02700	N/A	N/A
184	0.00001	0.00001	0.00001	0.00001	0.00001	0.01350	0.01350	0.01350	N/A	N/A
185	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001
186	0.02051	0.02700	0.02700	0.03191	0.03191	0.04787	0.04787	0.04787	N/A	N/A
188	0.02051	0.02700	0.02700	0.03590	0.03590	0.21540	0.21540	0.21540	0.21540	0.21540
190	0.00001	0.00500	0.00500	N/A						
210	0.00001	0.00001	0.00001	0.00001	0.00001	N/A	N/A	N/A	N/A	N/A
212	N/A	N/A	N/A	0.12420	0.12420	0.07452	0.07452	0.07452	0.04500	0.04500
213 <sup>(1)</sup>	0.14093	0.14093	0.14093	0.14533	0.14533	0.08720	0.08720	0.08720	0.03800	0.03800
220	0.01000	0.01400	0.01400	0.01800	0.00001	N/A	N/A	N/A	N/A	N/A
221	0.00001	0.00001	0.00001	0.00001	0.01800	0.01700	0.01700	0.01700	N/A	N/A
225	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01500	0.01500
230	0.01995	0.02000	0.02000	0.02200	0.02200	0.02200	0.02200	0.02200	N/A	N/A
235	0.00532	0.00532	0.00532	0.00532	0.00532	0.00266	0.00266	0.00266	N/A	N/A
240	0.02168	0.02699	0.02699	0.03140	0.03140	0.02140	0.02140	0.02140	0.01500	0.01500
250	0.03199	0.03200	0.03200	0.03600	0.03600	0.03600	0.03600	0.03600	N/A	N/A
252	N/A	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	N/A	N/A
253	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001
260	0.02030	0.02330	0.02330	0.02830	0.00001	N/A	N/A	N/A	N/A	N/A
261	0.00001	0.00001	0.00001	0.00001	0.02830	0.02830	0.02830	0.02830	N/A	N/A
282	0.01280	0.01400	0.01400	0.01890	0.01890	0.01890	0.01890	0.01890	N/A	N/A
284	0.00001	0.02699	0.02699	0.03239	0.03239	0.03239	0.03239	0.03239	N/A	N/A
285	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00001	0.00001
286	N/A	N/A	N/A	N/A	0.00001	0.00201	0.00201	0.00201	N/A	N/A
288	N/A	N/A	N/A	N/A	0.00001	0.01000	0.01000	0.01000	0.01000	0.01000
290	0.01995	0.02000	0.02000	N/A						

Source: Irvine Ranch Water District

Notes:

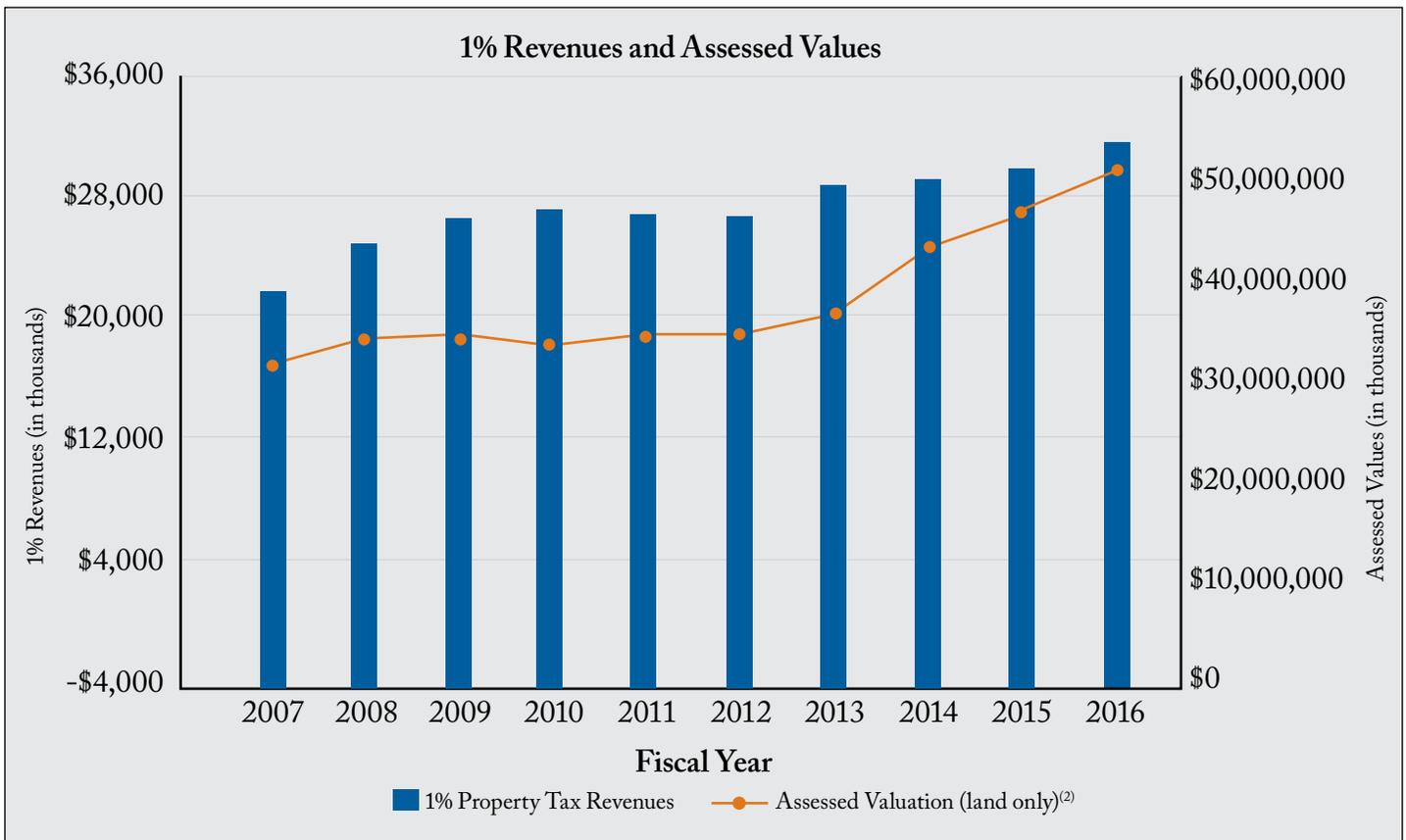
<sup>(1)</sup> Improvement Districts 113 and 213 encompass the former Tustin Marine Base.

<sup>(2)</sup> The ad valorem property tax rates for the consolidated improvement district 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>(2)</sup>	1 % Property Tax Revenue
2007	\$ 31,378,053	\$ 22,444
2008	35,540,296	24,730
2009	35,298,830	26,283
2010	34,818,153	27,150 <sup>(3)</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



Source: Orange County Auditor-Controller and Orange County Tax Collector.

Notes:

(1) The IRWD state mandated contribution to ERAF for FY 2004-05 and FY 2005-06 was \$9.7 million per year.

(2) Estimated market values for the land-only Assessed Values are not available.

(3) 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 assessed 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, 2016

**Direct Rate:**

Irvine Ranch Water District I.D. No. 112	\$0.03000
Irvine Ranch Water District I.D. No. 113	0.03000
Irvine Ranch Water District I.D. No. 125	0.01300
Irvine Ranch Water District I.D. No. 153	0.00001
Irvine Ranch Water District I.D. No. 185	0.00001
Irvine Ranch Water District I.D. No. 188	0.21540
Irvine Ranch Water District I.D. No. 212	0.04500
Irvine Ranch Water District I.D. No. 213	0.03800
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	0.00001
Irvine Ranch Water District I.D. No. 285	0.00001
Irvine Ranch Water District I.D. No. 288	0.01000

**Overlapping Rates:**

**School Districts:**

Coast Community College District	0.03092
Rancho Santiago Community College District	0.03063
Rancho Santiago Community College District SFID 1	0.01976
Laguna Beach Unified School District	0.01396
Newport Mesa Unified School District	0.02125
Saddleback Valley Unified School District	0.03008
Santa Ana Unified School District	0.06604
Tustin Unified School District SFID 2002-1	0.02718
Tustin Unified School District SFID 2008-1	0.04142
Tustin Unified School District SFID 2012-1	0.01476

**Cities**

Laguna Beach	0.00000
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Source: California Municipal Statistics, Inc.

## Irvine Ranch Water District

Principal Property Taxpayers  
Fiscal Year Ended June 30, 2016

Property Owner's Name	Type of Business	Assessed Valuation of Property, including Land & Improvements	Percentage of Total City Taxable Assessed Value
The Irvine Company	Developer/Real Estate	\$ 4,571,733,136	8.23%
The New Home Company Southern California	Homebuilder	997,258,641	1.79%
Irvine Apartment Communities	Real Estate	731,500,575	1.32%
Allergan	Pharmaceutical (R&D/Marketing)	491,862,535	0.89%
B Braun Medical Inc.	Bio-Medical Manufacturing	384,980,768	0.69%
Heritage Fields El Toro	Real Estate Developer	366,774,542	0.66%
Jamboree Center LLC	Developer/Real Estate	350,071,088	0.63%
LBA IV-PPI LLC	Real Estate Investment and Management	300,913,296	0.54%
John Hancock Life Insurance	Insurance	281,712,009	0.51%
Broadcom Corporation	Technology	229,631,400	0.41%
		<b>\$ 8,706,437,990</b>	<b>15.67%</b>

Source: City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2015)

Data was not yet available for FY2015/16 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

Fiscal Year	Levied During Fiscal Year		Collected During Fiscal Year	
	1 Percent <sup>(1)</sup>	General <sup>(2)</sup>	1 Percent	General <sup>(3)</sup>
2007	\$ 19,419,300	\$ 5,050,938	\$ 21,368,075	\$ 7,869,904
2008	23,963,000	7,626,979	22,859,667	10,242,088
2009	25,486,200	11,694,868	25,910,366	9,873,983
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
Total	\$ 260,678,700	\$ 98,203,475	\$ 262,276,935	\$ 106,417,121

**Irvine Ranch Water District**  
Property Tax Collections/Delinquency  
For the Past Ten Fiscal Years  
(Continued)

Fiscal Year	Percentage Collected		Amount of Levy Collected in Subsequent Periods	
	1 Percent	General	1 Percent	General
2007	110.04%	155.81%	\$ 1,093,740	\$ 541,024
2008	95.40%	134.29%	887,709	496,260
2009	101.66%	84.43%	477,134	281,774
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
Total			<u>\$ 11,445,480</u>	<u>\$ 5,142,085</u>

Source: County of Orange Tax Ledger

Notes:

- (1) The estimated levy for one percent revenue is generated internally and it is based on prior year receipts and developer growth projections.
- (2) 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.
- (3) 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

<b>Fiscal Year</b>	<b>Total Service Connections<sup>(2)</sup></b>	<b>General Obligation Bonds<sup>(3)</sup></b>	<b>GO Debt per Connection</b>	<b>Certificates of Participation</b>	<b>COPS Debt per Connection</b>
2007	182,140	\$ 201,585,230	\$ 1,107	\$ 111,600,000	\$ 613
2008	185,359	280,947,000	1,516	106,934,000	577
2009	186,856	415,699,000	2,225	103,100,000	552
2010	188,049	399,152,800	2,123	92,005,200	489
2011	191,474	562,051,000	2,935	88,043,000	460
2012	193,381	548,549,000	2,837	83,616,000	432
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	204,475	503,800,000	2,464	67,293,000	329
2016	212,364	491,200,000	2,313	60,387,000	284

## Irvine Ranch Water District

Outstanding Debt by Type<sup>(1)</sup>

For the Past Ten Fiscal Years

(Continued)

Fiscal Year	JPA Revenue Bonds	JPA Debt per Connection	Notes Payable	Notes Payable per Connection	Total Debt	Total Debt per Connection
2007	\$ 749,513,668	\$ 4,115	\$ 5,925,000	\$ 33	\$ 1,068,623,898	\$ 5,867
2008	724,962,000	3,911	5,549,000	30	1,118,392,000	6,034
2009	698,566,000	3,739	5,007,000	27	1,222,372,000	6,542
2010	690,263,700	3,671	4,553,000	24	1,185,974,700	6,307
2011	676,415,000	3,533	2,747,000	14	1,329,256,000	6,942
2012	638,521,000	3,302	2,494,000	13	1,273,180,000	6,584
2013	610,568,000	3,106	2,240,000	11	1,225,849,000	6,235
2014	-	-	1,984,000	10	591,449,000	2,949
2015	-	-	1,728,000	8	572,820,000	2,801
2016	-	-	1,469,000	7	553,056,000	2,604

Source: Irvine Ranch Water District

Notes:

<sup>(1)</sup> More detail about the District's long-term liabilities can be found at 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 2005 through the fiscal year 2013.

**Irvine Ranch Water District**  
 Outstanding General Obligation Bonds by Improvement District  
 As of June 30, 2016

Improvement District	General Obligation Bonds Authorized	General Obligation Bonds Issued	Remaining Unissued General Obligation Bonds Authorized	Amount Outstanding as of June 30, 2016
112	\$ 28,512,300	\$ 5,740,000	\$ 22,772,300	\$ 5,378,000
113	25,769,500	14,800,000	10,969,500	13,638,000
125	735,246,000	413,156,360	322,089,640	182,932,000
153	237,300,000	-	237,300,000	-
154	4,839,000	-	4,839,000	-
185	13,500,000	-	13,500,000	-
188	8,174,000	4,437,010	3,736,990	1,456,000
<b>Total</b>	<b>\$ 1,053,340,800</b>	<b>\$ 438,133,370</b>	<b>\$ 615,207,430</b>	<b>\$ 203,404,000</b>
210	\$ 2,000,000	\$ 2,000,000	-	-
212	108,711,000	15,700,000	93,011,800	14,731,000
213	87,647,500	23,800,000	63,847,500	20,839,000
225	856,643,000	449,748,160	406,894,840	230,535,000
240	117,273,000	48,476,470	68,796,530	21,431,000
253	122,283,000	-	122,283,000	-
285	21,300,000	-	21,300,000	-
288	8,977,000	300,000	8,677,000	260,000
<b>Total</b>	<b>\$ 1,324,835,300</b>	<b>\$ 540,024,630</b>	<b>\$ 784,810,670</b>	<b>\$ 287,796,000</b>
	<b>\$ 2,378,176,100</b>	<b>\$ 978,158,000</b>	<b>\$ 1,400,018,100</b>	<b>\$ 491,200,000</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>			
2007	n/a	n/a	n/a
2008	n/a	n/a	n/a
2009	\$ 500,354,220	\$ 2,745,000	0.00548611
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	5,470,500	0.00410343
2016	1,850,638,433	5,378,000	0.00290602

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 212</b>			
2007	n/a	n/a	n/a
2008	n/a	n/a	n/a
2009	\$ 500,354,220	\$ 7,305,000	0.01459966
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	14,974,500	0.01123306
2016	1,850,638,433	14,731,000	0.00795996

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 113</b>			
2007	n/a	n/a	n/a
2008	\$ 691,298,772	\$ 1,505,375	0.00217760
2009	609,156,504	4,505,375	0.00739609
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

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 213</b>			
2007	n/a	n/a	n/a
2008	\$ 691,298,772	\$ 11,139,775	0.01611427
2009	609,156,504	17,544,775	0.02880175
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

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 125</b>			
2007	n/a	n/a	n/a
2008	n/a	n/a	n/a
2009	n/a	n/a	n/a
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

Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 225</b>			
2007	n/a	n/a	n/a
2008	n/a	n/a	n/a
2009	n/a	n/a	n/a
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

**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	Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
				<b>Improvement District 240</b>			
				2007	\$ 4,140,693,955	\$ 30,462,056	0.00735675
				2008	4,642,366,023	29,182,814	0.00628619
				2009	4,936,249,533	32,326,608	0.00654882
				2010	4,871,225,527	30,885,287	0.00634035
				2011	4,903,741,743	29,527,697	0.00602146
				2012	4,973,007,663	28,081,173	0.00564672
				2013	5,343,804,951	26,441,526	0.00494807
				2014	5,609,174,229	24,078,000	0.00429261
				2015	6,031,968,996	22,767,000	0.00377439
				2016	6,449,202,772	21,431,000	0.00332305
				<b>Improvement District 153</b>			
2007	n/a	n/a	n/a	2007	n/a	n/a	n/a
2008	\$ 36,114,444	n/a	n/a	2008	\$ 36,114,444	n/a	n/a
2009	36,903,662	n/a	n/a	2009	36,903,662	n/a	n/a
2010	36,997,523	n/a	n/a	2010	36,997,523	n/a	n/a
2011	7,971,152	n/a	n/a	2011	7,971,152	n/a	n/a
2012	8,114,060	n/a	n/a	2012	8,114,060	n/a	n/a
2013	8,475,848	n/a	n/a	2013	8,475,848	n/a	n/a
2014	8,687,744	n/a	n/a	2014	228,692,347	n/a	n/a
2015	666,622,225	n/a	n/a	2015	666,622,225	n/a	n/a
2016	1,287,363,937	n/a	n/a	2016	1,287,363,937	n/a	n/a
				<b>Improvement District 154</b>			
2007	n/a	n/a	n/a				
2008	\$ 7,531,850	n/a	n/a				
2009	10,209,169	n/a	n/a				
2010	8,831,144	n/a	n/a				
2011	8,904,175	n/a	n/a				
2012	9,127,678	n/a	n/a				
2013	9,334,512	n/a	n/a				
2014	9,111,103	n/a	n/a				
2015	9,289,351	n/a	n/a				
2016	9,266,433	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	Fiscal Year	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 188</b>				<b>Improvement District 288</b>			
2007	\$ 12,167,278	\$ 1,397,684	0.11487238	2007	\$ 12,167,278	n/a	n/a
2008	12,410,613	1,231,073	0.09919517	2008	12,410,613	n/a	n/a
2009	12,806,315	1,235,205	0.09645283	2009	12,806,315	\$ 300,000	0.02342594
2010	14,613,156	1,050,082	0.07185864	2010	14,613,156	300,000	0.02052945
2011	13,887,854	2,155,702	0.15522208	2011	13,887,854	300,000	0.02160161
2012	14,165,606	1,942,809	0.13714975	2012	14,165,606	300,000	0.02117806
2013	14,448,912	1,714,661	0.11867059	2013	14,448,912	290,000	0.02007072
2014	14,446,476	1,468,000	0.10161648	2014	14,446,476	280,000	0.01938189
2015	14,735,113	1,462,000	0.09921879	2015	14,735,113	270,000	0.01832358
2016	185,851,827	1,456,000	0.00783420	2016	185,851,827	260,000	0.00139896

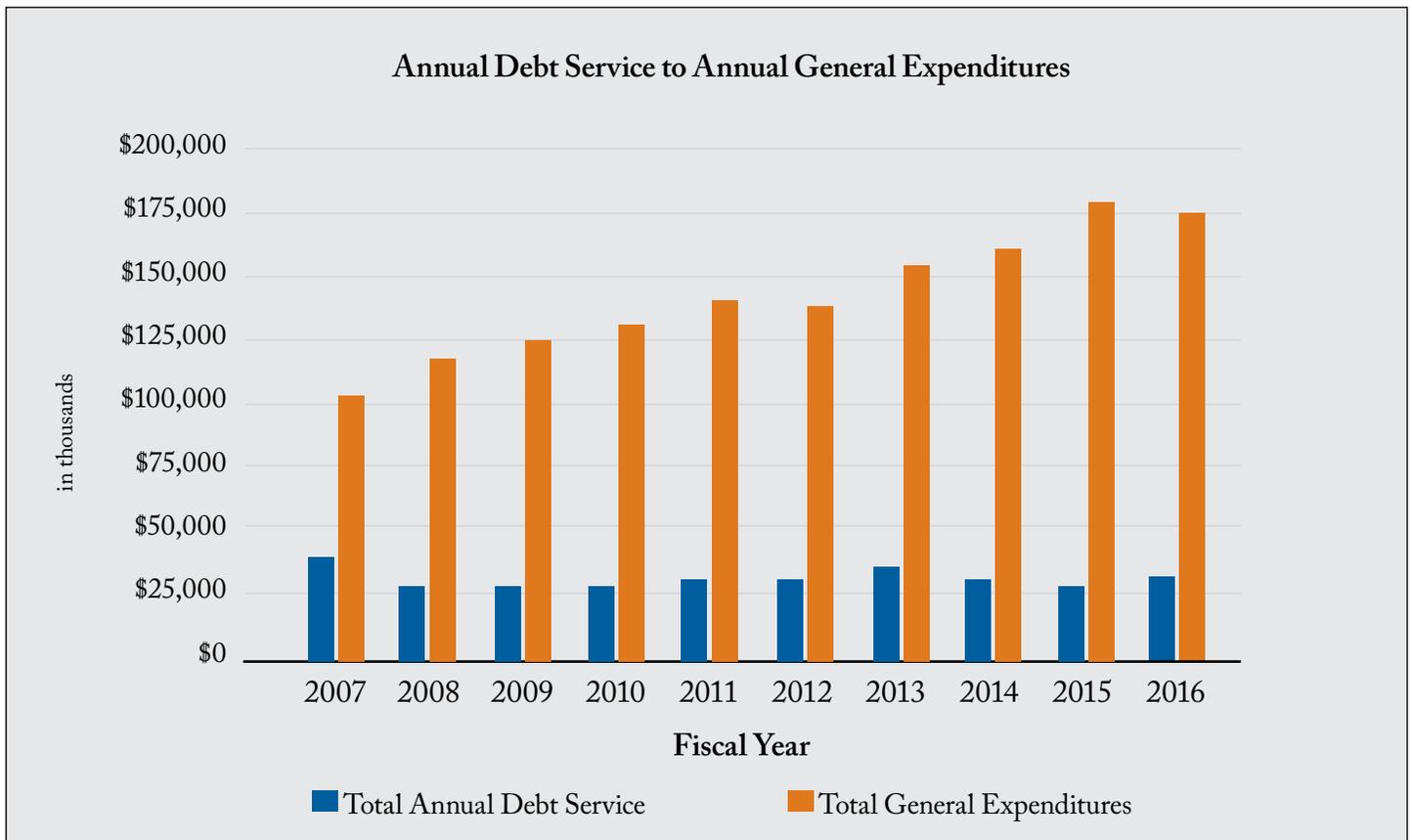
Source: Irvine Ranch Water District

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)

Fiscal Year	Total Annual Debt Service	Total General Expenditures	Ratio of Total Annual Debt Service to Total General Expenditures
2007	\$ 36,562	\$ 104,592	35.0%
2008	28,374	116,351	24.4%
2009	27,326	125,916	21.7%
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%



Source: Irvine Ranch Water District

# Irvine Ranch Water District

## Debt Service Coverage For the Past Ten Fiscal Years (in thousands)

	Fiscal Year				
	2007	2008	2009	2010	2011
<b>Revenues</b>					
Water sales and service charges	\$ 45,138	\$ 48,516	\$ 50,940	\$ 51,268	\$ 54,796
Sewer sales and service charges	37,649	39,811	41,157	45,344	45,375
Developer Connection fees	22,122	6,411	4,535	5,818	10,572
Net real estate income	6,081	7,171	7,010	5,624	5,649
Interest income	8,969	9,859	4,365	2,191	2,599
Net earnings on JPA	3,388	3,238	2,990	4,196	12,444
Available 1% property tax revenue	216	4,869	17,007	19,346	22,396
Other	10,457	11,130	9,918	10,706	7,987
Total Revenues	134,020	131,005	137,922	144,493	161,818
<b>Expenses</b>					
Water supply services	34,979	39,029	42,273	43,591	45,961
Sewer services	24,570	27,211	28,696	30,992	33,382
Administrative and general	16,595	18,516	20,248	20,000	18,896
Other	884	2,288	1,535	1,286	989
Total Expenses	77,028	87,044	92,752	95,869	99,228
<b>Net Revenues</b>	<b>\$ 56,992</b>	<b>\$ 43,961</b>	<b>\$ 45,170</b>	<b>\$ 48,624</b>	<b>\$ 62,590</b>
Applicable <i>Ad Valorem</i> Assessments Available for GO Double-Barrel Bonds	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Parity Obligations</b>					
Certificates of Participation	\$ 2,319	\$ 3,564	\$ 2,798	\$ 3,119	\$ 7,680
1997 State Loan #3	227	227	227	-	226
Series 2010B Bonds	-	-	-	-	4,080
Series 2011-A Index Tender Notes	-	-	-	-	35
Total Parity Obligations Debt Service	2,546	3,791	3,025	3,119	12,021
Remaining Revenues	\$ 54,446	\$ 40,170	\$ 42,145	\$ 45,505	\$ 50,569
<b>Parity Obligation Coverage</b>	22.4x	11.6x	14.9x	15.6x	5.2x
<b>Subordinate Obligations</b>					
Fixed Payer Swap Payments	\$ 612	\$ 2,115	\$ 5,694	\$ 7,391	\$ 7,734
State Loans and SCWD Debt	300	559	481	381	253
Total Subordinate Obligations	912	2,674	6,175	7,772	7,987
Remaining Revenues	\$ 53,534	\$ 37,496	\$ 35,970	\$ 37,733	\$ 42,582
<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)	\$ 22,040	\$ 19,861	\$ 9,276	\$ 7,804	\$ 4,593
Pro-rata Share <i>Ad valorem</i> Assessments for Non-Double-Barrel GO Bonds	8,411	9,515	9,959	11,244	11,690
Sub-total Pledged Revenues	83,985	66,872	55,205	56,781	58,865
<b>Additional Funds Available for Non-Double-Barrel GO Bonds</b>					
Remaining 1% Property Tax Revenues	216	2,395	15,454	19,346	22,396
Additional Net Revenues	53,318	35,101	20,516	18,387	20,186
Total with Additional Pledged Revenues	\$ 83,985	\$ 66,872	\$ 55,205	\$ 56,781	\$ 58,865
<b>Debt Service</b>					
Non-Double-Barrel GO Bond Debt Service	\$ 30,451	\$ 29,376	\$ 19,235	\$ 21,179	\$ 16,899
GO Bond Coverage	2.8x	2.3x	2.9x	2.7x	3.5x
Remaining Revenues	\$ 53,534	\$ 37,496	\$ 35,970	\$ 35,602	\$ 41,966
Total Debt Coverage	2.6x	2.0x	2.3x	2.1x	2.1x

**Irvine Ranch Water District**  
Debt Service Coverage  
For the Past Ten Fiscal Years (in thousands)  
(continued)

	2012	2013	2014	2015	2016
<b>Revenues</b>					
Water sales and service charges	\$ 57,558	\$ 62,565	\$ 66,321	\$ 70,110	\$ 76,692
Sewer sales and service charges	49,234	53,085	58,109	62,808	67,682
Developer Connection fees	9,030	17,314	22,429	29,183	32,109
Net real estate income	6,736	6,566	7,760	8,191	8,693
Interest income	1,739	1,549	1,671	1,515	1,585
Net earnings on JPA	11,927	20,294	12,356	-	-
Available 1% property tax revenue	27,652	25,796	28,532	29,770	31,645
Other	6,141	8,323	10,974	7,899	7,836
Total Revenues	165,530	195,492	208,152	209,476	226,242
<b>Expenses</b>					
Water supply services	44,883	51,163	57,624	57,978	57,499
Sewer services	33,086	38,189	37,715	54,575	40,413
Administrative and general	20,097	22,667	22,272	15,145	19,451
Other	10,713	6,110	7,163	9,752	2,800
Total Expenses	108,779	118,129	124,774	137,450	120,163
<b>Net Revenues</b>	<b>\$ 56,751</b>	<b>\$ 77,363</b>	<b>\$ 83,378</b>	<b>\$ 72,026</b>	<b>\$106,079</b>
Applicable <i>Ad Valorem</i> Assessments Available for GO Double-Barrel Bonds	\$ 5,823	\$ 5,838	\$ 6,409	\$ 4,839	\$ 6,036
<b>Parity Obligations</b>					
Certificates of Participation	\$ 8,016	\$ 8,388	\$ 8,753	\$ 9,098	\$ 9,487
1997 State Loan #3	226	226	227	227	227
Series 2010B Bonds	7,533	7,519	7,825	7,829	7,823
Series 2011-A Index Tender Notes	2,284	2,306	2,360	2,455	2,927
Total Parity Obligations Debt Service	18,059	18,439	19,165	19,609	20,464
Remaining Revenues	\$ 44,515	\$ 64,762	\$ 70,622	\$ 57,256	\$ 91,651
<b>Parity Obligation Coverage</b>	<b>3.5x</b>	<b>4.5x</b>	<b>4.7x</b>	<b>3.9x</b>	<b>5.5x</b>
<b>Subordinate Obligations</b>					
Fixed Payer Swap Payments	\$ 7,734	\$ 7,452	\$ 7,475	\$ 7,734	\$ 7,712
State Loans and SCWD Debt	308	308	308	308	308
Total Subordinate Obligations	8,042	7,760	7,783	8,042	8,020
Remaining Revenues	\$ 36,473	\$ 57,002	\$ 62,839	\$ 49,214	\$ 83,631
<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)	\$ 3,313	\$ 3,470	\$ 3,013	\$ 3,358	\$ 3,226
Pro-rata Share <i>Ad valorem</i> Assessments for Non-Double-Barrel GO Bonds	5,761	5,940	4,797	4,463	5,396
Sub-total Pledged Revenues	45,547	66,437	70,649	57,035	92,253
<b>Additional Funds Available for Non-Double-Barrel GO Bonds</b>					
Remaining 1% Property Tax Revenues	23,165	25,796	28,532	29,770	31,645
Additional Net Revenues	13,308	25,248	34,307	19,444	51,986
Total with Additional Pledged Revenues	\$ 45,547	\$ 66,437	\$ 70,649	\$ 57,035	\$ 92,253
<b>Debt Service</b>					
Non-Double-Barrel GO Bond Debt Service	\$ 16,899	\$ 17,129	\$ 10,968	\$ 12,840	\$ 11,173
GO Bond Coverage	2.7x	3.9x	6.4x	4.4x	8.3x
Remaining Revenues	\$ 28,648	\$ 49,308	\$ 59,681	\$ 44,195	\$ 81,080
Total Debt Coverage	1.7x	2.1x	2.6x	2.1x	3.0x

Source: Irvine Ranch Water District

# Irvine Ranch Water District

## Principal Employers

Fiscal Year Ended June 30, 2016

<b>Name of Company</b>	<b>Number of Employees</b>	<b>Products</b>	<b>Percentage of Employment</b>
University of California, Irvine	19,625	Educational	17.12%
Irvine Unified School District	4,709	Educational	4.11%
Blizzard Entertainment Inc.	2,622	Technology	2.29%
Broadcom	2,604	Technology	2.27%
Edwards Lifesciences	2,575	Surgical Appliances and Supplies	2.25%
Parker Hannifin Corporation	2,400	Aircraft Parts	2.09%
Nationstar Mortgage	1,556	Mortgage	1.36%
Glidwell Laboratories	1,538	Dental Appliances	1.34%
24 Hour Fitness	1,426	Fitness Center	1.24%
Thales Avionics	1,424	Aerospace	1.24%
			<u>35.31%</u>

Source: City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2015)

Data was not yet available for FY2015/16 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

Fiscal Year	IRWD Population	City of Irvine Population	City of Irvine Median Family Income	Total Personal Income	County of Orange Unemployment Rate
2007	330,000	199,400	\$ 85,624	\$ 7,667,079	4.0%
2008	330,000	207,646	98,923	8,601,736	5.3%
2009	330,000	212,541	91,101	8,723,320	8.3%
2010	331,500	217,686	94,903	8,090,372	9.5%
2011	330,000	219,156	93,258	8,484,794	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	242,651	90,585	10,595,508	4.2%
2016	390,000	250,384	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	3.6%

Source: City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2015) 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.

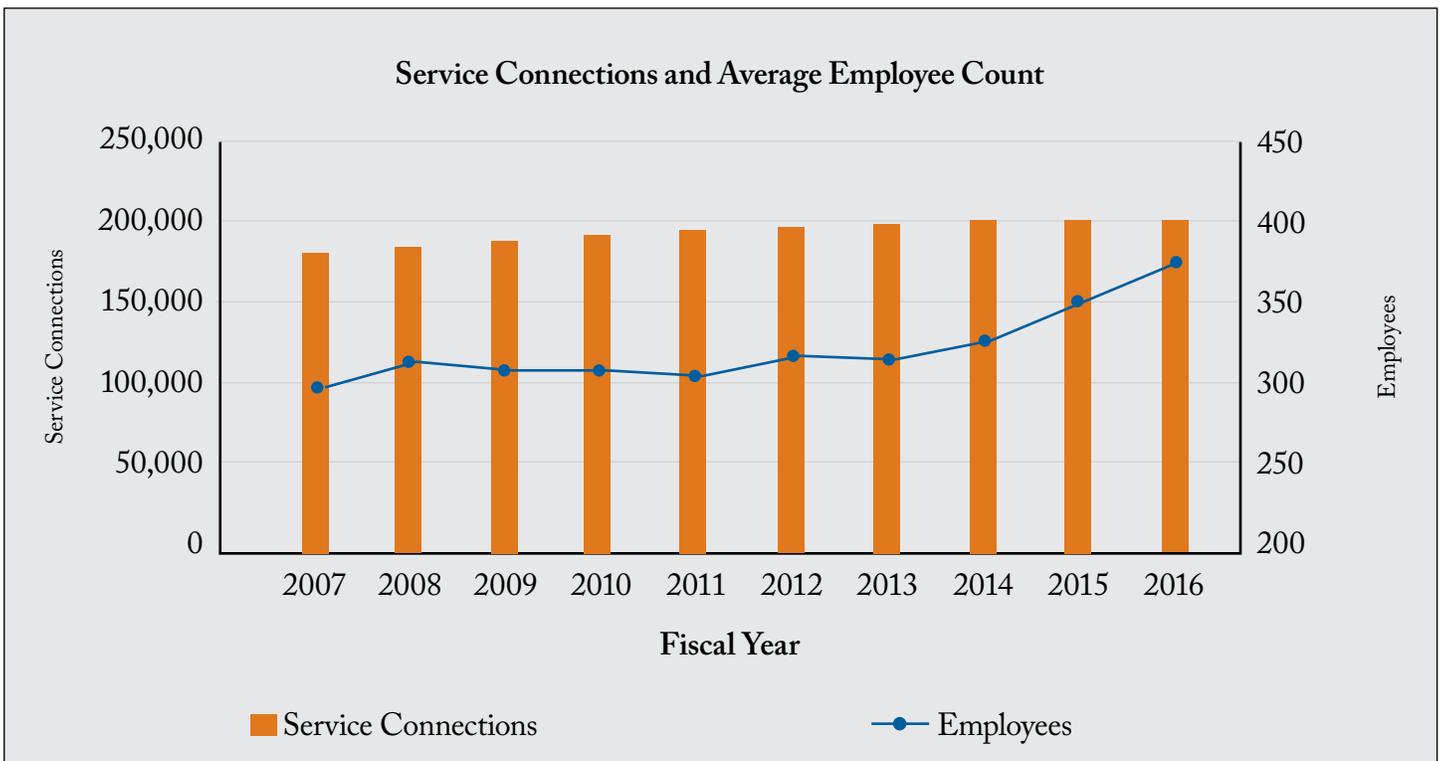
Note:

<sup>(1)</sup> Median Family Income and Total Personal Income for FY 2016 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	Potable Water	Non-Potable Water	Sewer & Recycled Water	Total Service Connections	Average Employee Population	Service Connections per Employee
2007	93,531	293	88,316	182,140	303	601
2008	95,386	198	89,775	185,359	313	592
2009	96,110	201	90,545	186,856	310	603
2010	96,797	226	91,252	188,275	310	607
2011	98,453	184	92,837	191,474	305	628
2012	99,377	88	93,828	193,293	319	606
2013	101,020	88	95,488	196,596	316	622
2014	102,990	87	97,482	200,559	324	619
2015	104,994	84	99,397	204,475	350	584
2016	108,952	84	103,328	212,364	370	574



Source: Irvine Ranch Water District

## Irvine Ranch Water District

### Operating Indicators by Function

#### New Service Connections

#### For the Past Ten Fiscal Years

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Water</b>										
Residential	2,211	1,439	552	631	1,469	862	1,520	1,848	2,127	3,783
Commercial/Industrial/ Public Authority	312	330	149	19	98	18	27	40	(126)	96
Fire Protection	162	173	86	43	40	37	55	50	29	25
Construction & Temporary	9	(101)	(60)	(6)	39	3	31	36	4	40
Landscape Irrigation	93	(80)	13	33	(21)	(89)	8	(4)	(30)	13
Agricultural	2	(1)	(13)	(8)	(11)	(3)	2	(1)	(3)	1
<b>Sewer</b>										
Residential	1,462	891	527	613	1,462	861	1,521	1,829	2,127	3,783
Commercial/Industrial/ Public Authority	290	357	156	21	37	21	29	41	(319)	119
Landscape Irrigation	276	207	84	63	85	102	112	127	113	25
Agricultural	(2)	4	3	10	1	7	(2)	(3)	(6)	4
<b>Total</b>	<b>4,815</b>	<b>3,219</b>	<b>1,497</b>	<b>1,419</b>	<b>3,199</b>	<b>1,819</b>	<b>3,303</b>	<b>3,963</b>	<b>3,916</b>	<b>7,889</b>

Source: Irvine Ranch Water District

## Irvine Ranch Water District

Operating Indicators by Function  
Average Monthly Usage (in CCF)  
For the Past Ten Fiscal Years

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Water</b>										
Residential	11	11	10	10	9	9	9	9	12	11
Commercial	75	69	63	57	56	61	63	66	57	60
Industrial	228	226	211	200	201	201	204	192	267	222
Public Authority	356	359	347	300	295	296	306	305	378	287
Construction & Temporary	94	122	39	52	79	106	181	241	398	285
Treated - Landscape Irrigation	127	122	116	95	85	94	105	182	110	74
Treated - Agricultural	1,653	1,294	1,116	663	925	835	733	575	646	327
Untreated - Agricultural	7,991	6,405	7,495	6,925	4,714	4,768	5,799	6,314	8,504	8,047
	<b>10,534</b>	<b>8,608</b>	<b>9,397</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>Recycled water</b>										
Landscape Irrigation	211	191	182	152	134	152	169	182	192	186
Agricultural	1,792	1,792	2,418	1,874	2,247	3,768	4,145	3,882	4,992	3,891
	<b>2,003</b>	<b>1,983</b>	<b>2,600</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>

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)

Fiscal Year	Local	Imported	Recycled	Total Supply
2007	45,304	40,252	15,180	100,736
2008	45,379 <sup>(1)</sup>	36,656	16,110 <sup>(2)</sup>	98,145
2009	45,537	29,965	22,676	98,178
2010	45,980	24,744	20,912	91,636
2011	41,274 <sup>(3)</sup>	30,260	21,030	92,564
2012	39,409	26,155	20,602	86,166
2013	49,967 <sup>(4)</sup>	20,151	22,983	93,101
2014	55,015 <sup>(4)</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

Water Deliveries/Sales  
 (in Acre Feet)

Fiscal Year	Potable and Untreated	Recycled	Total Demand
2007	66,648	27,154	93,802
2008	64,423	27,033	91,456
2009	63,431	26,258	89,689
2010	56,634	22,830	79,464 <sup>(5)</sup>
2011	53,642	22,250	75,892
2012	54,818	25,011	79,829
2013	57,203	28,259	85,462 <sup>(6)</sup>
2014	59,907	30,021	89,928 <sup>(6)</sup>
2015	58,319	32,139	90,458 <sup>(6)</sup>
2016	51,098	26,879	77,977 <sup>(7)</sup>

Source: Irvine Ranch Water District

Notes:

- <sup>(1)</sup> The OPA well went down in FY 2008 and was rebuilt, coming online in FY 2011.
- <sup>(2)</sup> The MWRP capacity was expanded and production increased in FY 2008 with total capacity identified in FY 2012.
- <sup>(3)</sup> IDP wells went down in FY 2011 and will come back on line in FY 2015.
- <sup>(4)</sup> Wells 21 & 22 came on line during FY 2013 and was at full capacity in FY 2014.
- <sup>(5)</sup> Significant rainfall in December produced a much lower overall demand.
- <sup>(6)</sup> Extremely dry conditions led to a considerable increase in demands.
- <sup>(7)</sup> State mandated reduction in usage resulted in a significant decrease in overall demand.

# Irvine Ranch Water District

## Capital Asset Statistics For the Past Ten Fiscal Years

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Potable System</b>										
Miles of Water Line <sup>(1)</sup>	1,090	1,132	1,134	1,169	1,460	1,490	1,516	1,597	1,622	1,760
Number of Storage Tanks <sup>(3)</sup>	37	37	37	37	37	37	36	36	36	36
Maximum Storage Capacity (Acre Feet)	456	456	456	456	456	456	456	456	456	456
Number of Pumping Stations	40	40	45	45	45	45	40	41	42	42
Number of Wells	24	24	24	24	24	24	26	26	27	27
Well Production Capacity (cfs)	109	117	117	117	117	117	124	124	128	128
Water Banking Storage (Acre Feet)	-	-	50,000	107,600	109,600	109,600	109,600	109,600	109,600	126,000
<b>Non-Potable and Recycled Systems</b>										
Miles of Recycled Line <sup>(1)</sup>	367	399	400	407	468	478	488	503	509	525
Number of Storage Tanks <sup>(2)</sup>	11	11	11	11	11	11	12	12	12	12
Number of Open Reservoirs <sup>(2)</sup>	4	4	4	4	4	4	5	5	5	5
Maximum Storage Capacity (Acre Feet) <sup>(4)</sup>	23,703	23,703	23,703	23,703	23,703	23,703	24,155	24,155	24,155	24,155
Number of Pumping Plants	18	18	18	18	18	18	19	19	20	20
Number of Wells <sup>(5)</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	809	899	901	940	950	962	971	1,009	1019	1070
Number of Lift Stations <sup>(6)</sup>	19	19	19	18	18	16	14	14	14	14
Treatment Plants	2	2	2	2	2	2	2	2	2	2
Treatment Capacity	25.5	25.5	25.5	25.5	25.5	25.5	25.5	35.5	35.5	35.5

Source: Irvine Ranch Water District

### Notes:

<sup>(1)</sup> Miles of Line include laterals.

<sup>(2)</sup> IRWD began reporting storage tanks and open reservoirs separately in 2006. Previously for purposes of these statistics, both have been combined under “storage tanks”.

<sup>(3)</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>(4)</sup> Excludes Serrano Water District’s capacity in Irvine Lake, which equals 25% of total capacity.

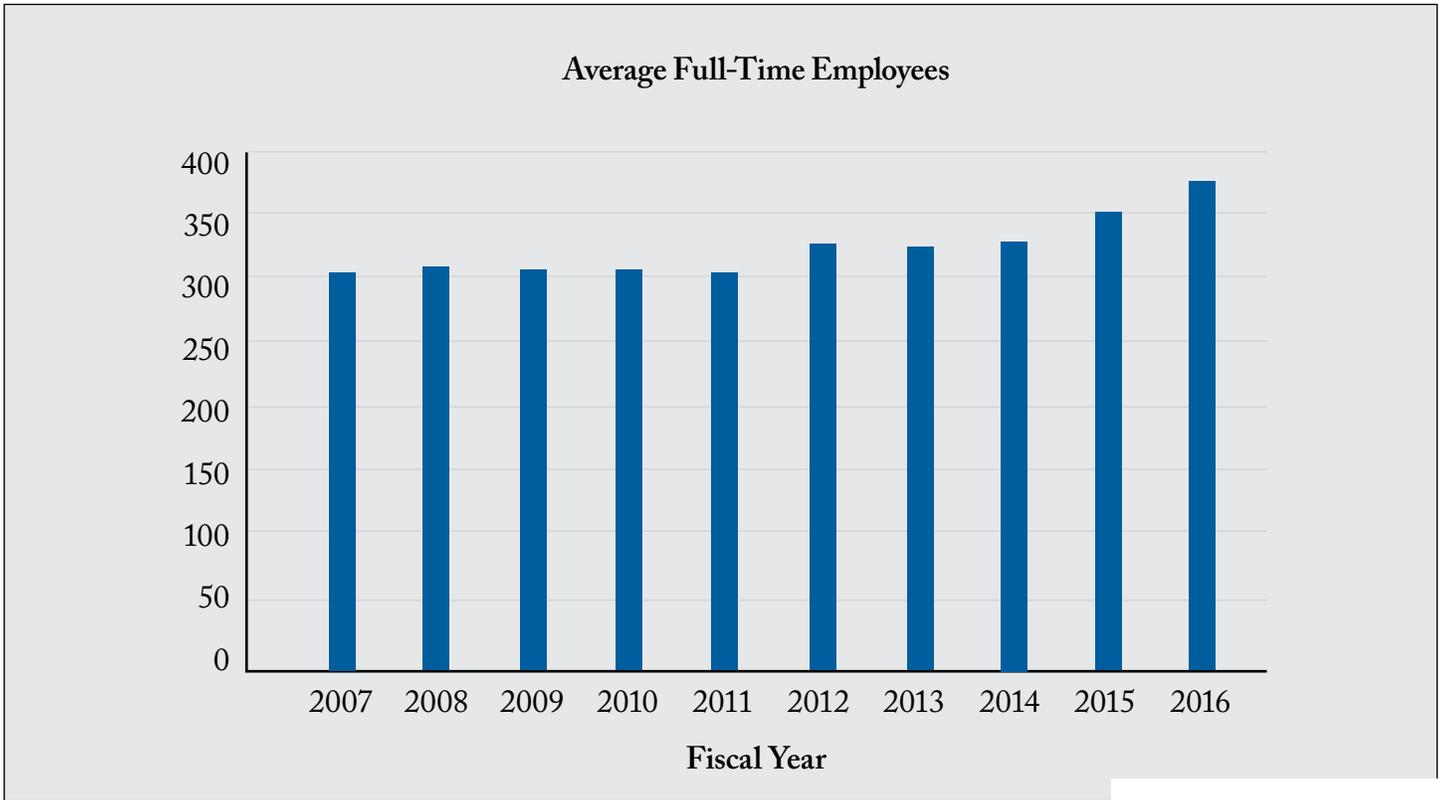
<sup>(5)</sup> Accounts for active production wells only (Excludes SGU Injection Well).

<sup>(6)</sup> Excludes private lift stations for IRWD facilities.

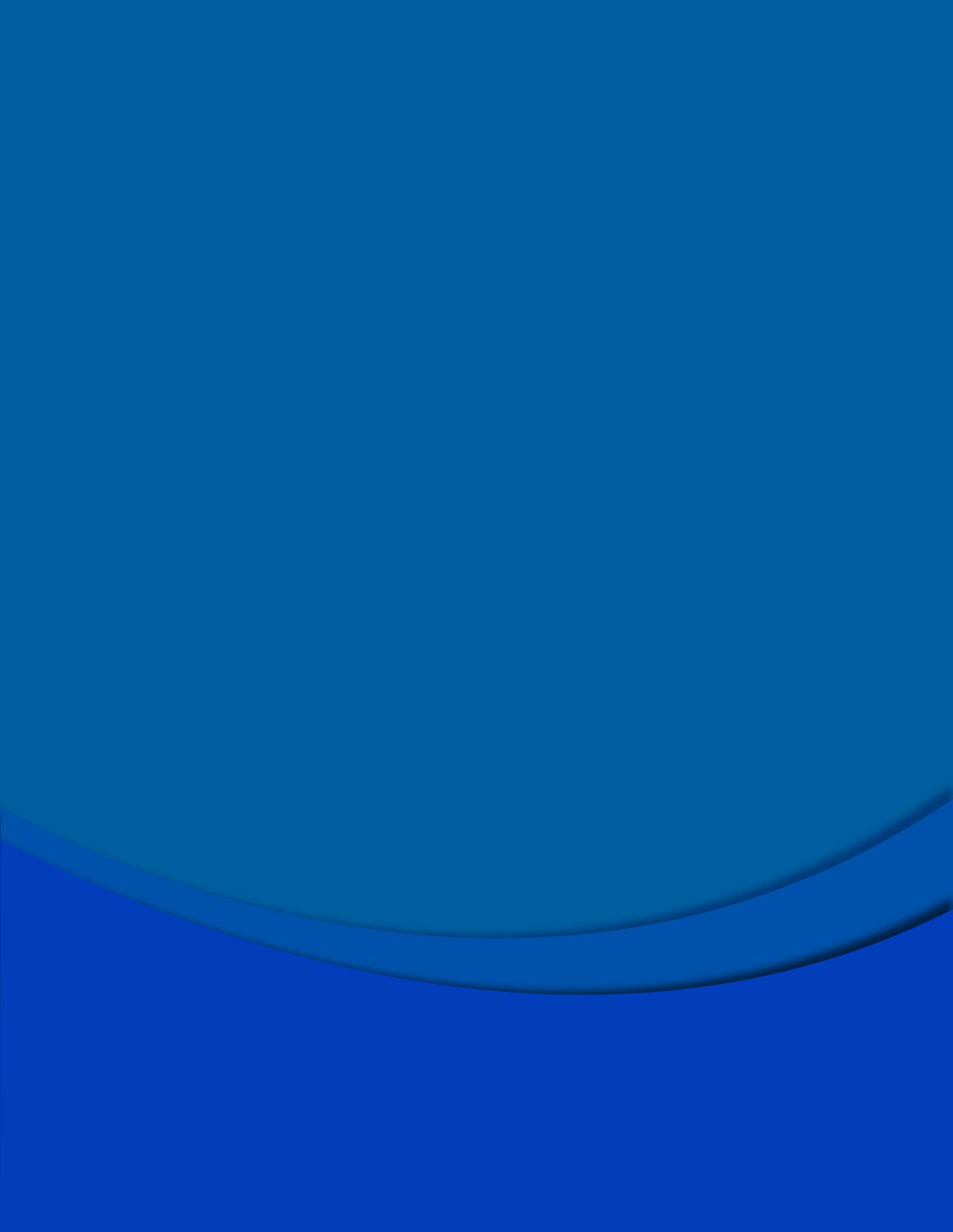
# Irvine Ranch Water District

## Full-Time Employees For the Past Ten Fiscal Years

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average Full-Time Employees	303	313	310	310	305	319	316	324	350	370



Source: Irvine Ranch Water District



POST OFFICE BOX 57000  
IRVINE, CA 92619-7000  
949.453.5300

**IRVINE RANCH  
WATER DISTRICT**

## EXHIBIT “B”



Davis Farr LLP  
2301 Dupont Drive | Suite 200 | Irvine, CA 92612  
Main: 949.474.2020 | Fax: 949.263.5520

Board of Directors  
Irvine Ranch Water District  
Irvine, California

### **Communication with Those Charged with Governance at the Conclusion of the Audit**

We have audited the financial statements of Irvine Ranch Water District (the “District”) for the year ended June 30, 2016. 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 April 25, 2016. 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. During the fiscal year ended June 30, 2016, the District implemented GASB Statement No. 72 resulting in a restatement of real estate investments that are now required to be reported at fair value. 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 involving the useful lives and depreciation methodology to use for capital assets.
- 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 market valuation of derivative instruments.

### ***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 each opinion unit's financial statements 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 December 5, 2016.

### ***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*, and *Schedule of Contributions*, 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 "Davis Law LLP". The signature is written in a cursive, flowing style.

Irvine, California  
December 5, 2016

## EXHIBIT “C”



Davis Farr LLP  
2301 Dupont Drive | Suite 200 | Irvine, CA 92612  
Main: 949.474.2020 | Fax: 949.263.5520

Finance Personnel Committee  
Irvine Ranch Water District  
Irvine, California

### **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**

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, 2016, and the related notes to the financial statements, which collectively comprise the District's basic financial statements, and have issued our report thereon dated December 5, 2016.

#### **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.



Irvine, California  
December 5, 2016

December 12, 2016

Prepared by: Jennifer Davis/Tanja Fournier

Submitted by: Robert Jacobson/Cheryl Clary

Approved by: Paul Cook

CONSENT CALENDAR

PROPOSED 2017 INVESTMENT POLICY

SUMMARY:

Each year, the District is required to adopt an Investment Policy. Changes to the policy from year-to-year are required to conform to any amendments to the California Government Code governing investment of public funds. During 2016, there were no significant changes to the Government Code and the proposed policy for 2017 has no change from the policy adopted for 2016. Staff is requesting that the Board approve the proposed policy attached as Exhibit "A".

BACKGROUND:

Staff annually submits a Statement of Investment Policy to the Board of Directors for approval. The annual submittal generally incorporates amendments to investment-related Government Code sections, policy objectives, delegation of authority and a detailed schedule of authorized investments. The proposed 2017 Investment Policy and related Resolution are attached as Exhibits "A" and Exhibit "B", respectively. During 2016, there were no significant amendments to the Government Code section relating to authorized investments for local agencies, and therefore the 2017 proposed policy is the same as the 2016 Investment Policy.

As specified in the Government Code, the Board's delegation of authority to the Treasurer and Assistant Treasurer(s) to manage the District's investment program is limited to a one year period, renewable annually. The recommended 2017 Investment Policy includes continuation of this annual delegation of authority to the Treasurer and Assistant Treasurer(s).

Given the conservative nature of the State codes and the Board's additional restrictions, staff believes the authorized investments in the recommended 2017 Investment Policy are sufficiently limited to ensure appropriate investment security while retaining some degree of flexibility to take advantage of changing market opportunities. Additionally, the recommended policy provides authority for the Finance and Personnel Committee to further restrict, but not liberalize, authorized investments. Any liberalization of authorized investments would first require the approval of the Board of Directors.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

This activity is categorically exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Sections 15301 and 15302.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on December 6, 2016.

RECOMMENDATION:

THAT THE BOARD APPROVE OF THE PROPOSED 2017 INVESTMENT POLICY AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2016-\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT  
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT  
TREASURERS TO INVEST AND REINVEST FUNDS OF THE  
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS  
AND TO SELL AND EXCHANGE SECURITIES

LIST OF EXHIBITS:

Exhibit “A” – Proposed 2017 Investment Policy  
Exhibit “B” – Resolution Adopting 2017 Investment Policy

**IRVINE RANCH WATER DISTRICT**  
**PROPOSED 2017 INVESTMENT POLICY**

**Introduction:**

This investment policy is intended to establish a clear understanding of the District's authorized investment activities for members of the public, the Board of Directors of the Irvine Ranch Water District (the "District"), District management and outside investment professionals.

**Policy:**

It is the policy of the District to invest its funds in a prudent and professional manner which will provide maximum security of principal while meeting required cash flow demands and conforming to all State statutes governing the investment of public funds, the District's investment policies, and prudent cash management principles.

**Scope:**

This investment policy applies to all District funds that are under the direct oversight of the Board of Directors. The investment of any bond proceeds or related funds will also be made in accordance with this investment policy.

**Standard of Care:**

The Board of Directors and those persons authorized to make investment decisions on behalf of the District are trustees of public funds. The standard of care to be used in all investment transactions shall be the "prudent person" standard and shall be applied in the context of managing the overall portfolio (Government Code Section 53600.3). The "prudent person" standard is:

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived.

Officers and employees of the District involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program or could impair their ability to make impartial investment decisions. "Designated employees" of the District involved in the investment of District funds, which includes the Treasurer and Assistant Treasurer(s), shall disclose all information at the times and in the manner required by the District's Conflict of Interest Code.

**Objectives:**

The primary objectives of the District’s investment activities, in priority order, are as follows:

1. **Safety:** Safety of principal is the foremost objective of the investment program. Investments of the District shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. Accordingly, diversification by issuer, type, and maturity of securities will be made to avoid or minimize potential losses on individual securities.
2. **Liquidity:** The District’s investment portfolio will remain sufficiently liquid to enable the District to meet all operating and capital cash requirements. To the extent required, this liquidity will be maintained through the purchase of securities with active secondary or resale markets and with short-term maturities so as to minimize market risk on the market price of the securities.
3. **Yield:** The District’s investment portfolio shall be designed with the objective of attaining the highest rate of return commensurate with the above requirements for the preservation of capital and the maintenance of adequate liquidity.

**Delegation of Authority:**

In accordance with Government Code Sections 53607 and 53608, the Board of Directors has delegated to the District’s Treasurer and Assistant Treasurer(s), acting singly, the authority to manage the District’s investment program and to provide for the safekeeping of securities. This delegated authority is effective for the 2017 calendar year (Resolution 2016-XX).

**Authorized Investments:**

The District is authorized to invest its funds pursuant to the following State codes:

Government Code:

- Section 53600 et seq. - General investments
- Section 16429.1 - Local Agency Investment Fund (LAIF)
- Section 53684 - Orange County Treasury Pool (not currently authorized by the Board of Directors)
- Section 5920 - Public finance contracts

Water Code:

- Section 35912 - Real estate

The Treasurer and Assistant Treasurer(s) are authorized to invest District funds in accordance with these Code sections, subject to certain restrictions imposed by the District's Board of Directors. These authorized investments and restrictions are shown in Exhibit "A".

Whenever practical, a competitive process shall be used for the purchase and sale of securities.

The Board of Directors has approved investing in securities with terms or remaining maturities in excess of five years as part of the District's investment program, but that no such investments are to be made without the concurrence of the Finance and Personnel Committee.

#### **Authorized Financial Institutions:**

Only financial institutions designated as "primary dealers" by the Federal Reserve Bank of New York, or other dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule), are authorized to provide investment services to the District. The Treasurer may limit the number of dealers authorized to provide such services.

A copy of the District's annual investment policy shall be provided to each institution authorized by the Treasurer to provide services to the District. Prior to providing investment services, such financial institution shall acknowledge in writing that it has received the District's investment policy and that all persons handling the District's account have reviewed the policy.

All authorized financial institutions are required to send the District unaudited quarterly and audited annual financial statements or provide electronic access to the financial statements.

#### **Safekeeping and Custody:**

All security transactions entered into by the District shall be conducted on a delivery-versus-payment (DVP) basis. All securities owned by the District shall be delivered to the District by book entry, physical delivery, or a third party custodial agreement. Any third party custodian shall be designated by the Treasurer, and all securities held by such custodian, including book entry and physical securities, shall be held in a manner that clearly establishes the District's right of ownership. The District's custodial agent shall meet the requirements of Government Code Section 53608. The District's deposits with LAIF or any other authorized investment pool shall be evidenced by the standard reporting requirements of LAIF or the investment pool.

### **Reporting:**

The Treasurer shall file a monthly report with the Board of Directors at a public meeting that shows the status of the District's cash and securities, and all related investment transactions that occurred during the month. The status report shall also be filed with the District's General Manager and will include at least the following information:

- Type of investment
- Original cost
- Issuing institution
- Market value, including source
- Par amount
- Maturity date
- Coupon and/or yield

In addition, the status report shall include the portfolio's rate of return for the month, the average weighted life of the portfolio, a statement regarding the portfolio's compliance with the District's investment policy, and a statement regarding the District's ability to meet expenditure requirements over the following six months. (Government Code Sections 53607 and 53646)

The Treasurer shall also file a quarterly report with the Board of Directors at a public meeting with respect to the District's real estate investments and any related transactions which occurred during such quarter. The real estate report will be structured to comply as closely as possible with the information requirements of G.C. Section 53646.

### **Investment Policy Adoption and Amendments:**

The Treasurer shall submit an investment policy at least annually to the Board of Directors at a public meeting (Government Code Section 53646). The policy shall be effective for the calendar year specified. If the Board of Directors does not approve an investment policy for any calendar year, then the investment policy for the previous calendar year shall remain in effect until a new policy is approved.

The District's Finance and Personnel Committee is authorized to make changes in the investment policy from time to time as may be necessary, provided that such changes may only be more restrictive in nature. Any changes that would liberalize the investment policy shall be approved by the Board of Directors before becoming effective. Any changes in the investment policy by the Finance and Personnel Committee shall be reported to the Board of Directors at its next regular meeting.

Exhibit "A"  
 IRVINE RANCH WATER DISTRICT  
 2017 AUTHORIZED INVESTMENTS

INVESTMENT	MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
California State and Local Agency Bonds, Notes and Warrants	Registered State warrants, treasury notes or bonds. Any bonds, notes, warrants or other evidences of indebtedness of any local agency.	Limited to securities approved by the Finance and Personnel Committee.
U.S. Treasury and Agency Obligations	U.S. Treasury notes, bonds, bills or certificates of indebtedness or those for which the full faith and credit of the United States are pledged for the payment of principal and interest. Also federal agency or U.S. government sponsored obligations.	No additional restrictions.
Registered treasury notes or bonds of California or other 49 United States	Registered treasury notes or bonds of any of the other 49 United States in addition to California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 United States, in addition to California.	Limited to states and/or agencies approved by the Finance and Personnel Committee.
Banker's Acceptances	Must be eligible for discount at the Federal Reserve Bank. May not exceed 180 days maturity or 40% of local agency funds. No more than 30% of local agency funds may be invested in banker's acceptances of any one commercial bank.	Limited to domestic and foreign banks approved by the Finance and Personnel Committee.
U.S. Dollar Denominated Senior Unsecured Unsubordinated Obligations	Permits United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank, rated "AA" or better, not exceeding 30% of the agency's moneys that may be invested pursuant Section 53601	Limited to securities approved by the Finance and Personnel Committee.

IRVINE RANCH WATER DISTRICT  
2017 AUTHORIZED INVESTMENTS

INVESTMENT	MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
Commercial Paper	Must be of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized rating service. Issuers must be organized and operating in U.S., have assets exceeding \$500 million and be rated "A" or better. May not exceed 270 days maturity. May not exceed 25% of a local agency's funds. May not exceed 270 days maturity. May not exceed 25% of a local agency's funds.	Limited to corporations approved by the Finance and Personnel Committee.
Negotiable Certificates of Deposit	Issued by national or state-chartered banks, savings associations, federal associations, or state or federal credit unions or state-licensed branches of a foreign bank. Specified restrictions on credit unions. Limited to 30% of local agency funds.	Limited to domestic and foreign banks and thrift institutions approved by the Finance and Personnel Committee.
Repurchase and Reverse Repurchase Agreements	Repurchase agreements are limited to one year or less and collateral shall be valued at least 102%. Reverse repurchase agreements, including securities lending agreements, are limited to 20% of the base portfolio value and to terms of 92 days or less unless a spread is guaranteed in writing. Securities being sold on reverse must be owned by the agency for at least 30 days. Reverse repurchase agreements may be made with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency.	All reverse repurchase agreements must have the prior approval of the Finance and Personnel Committee.  All repurchase agreements must be made only with primary dealers of the Federal Reserve Bank of New York, or nationally and state chartered banks with a significant banking relationship with the local agency.
Medium Term Corporate Notes	All debt securities issued by U.S. corporations or depository institutions licensed by the U.S. or any state and operating within the U.S. Institutions rated "A" or better. May not exceed five years maturity, or 30% of funds.	For depository institutions, same as shown under Negotiable Certificates of Deposit. For corporations, limited to those approved by the Finance and Personnel Committee.

IRVINE RANCH WATER DISTRICT  
2017 AUTHORIZED INVESTMENTS

INVESTMENT	MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
Shares of Beneficial Interest	Issued by diversified management companies investing in securities as specified. Companies shall have highest rating assigned by not less than two nationally recognized statistical rating organizations or shall have a registered and experienced investment advisor. Purchase price shall not include any commissions. Limited to 20% of funds of which no more than 10% may be with any one fund.	No additional restrictions.
Collateralized Negotiable Securities	Notes, bonds or obligations secured by a valid first priority security interest in specified securities. Collateral to be placed by delivery or book-entry into the custody of a trust company/department not affiliated with the issuer. Security interest perfected in accordance with Uniform Commercial Code or applicable federal regulations. Collateral requirements are the same as required to secure bank deposits made by local agencies.	No investment in collateralized negotiable securities shall be made without the prior approval of the Finance and Personnel Committee.
Collateralized Mortgage Obligations and Asset-Backed Securities	Mortgage pass-through security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable pass-through certificate, or consumer receivable-backed bond of a maximum of 5 years maturity. Securities must be issued by an issuer having an "A" or higher rating by a nationally recognized rating service. Securities themselves must have an "AA" rating and may not exceed 20% of surplus funds.	No investment in collateralized mortgage obligations or asset-backed securities shall be made without the prior approval of the Finance and Personnel Committee.
Financial Futures and Options	Authorizes the investment in financial futures and financial option contracts in any of the investment categories contained in G.C. Section 53601. <b>(Government Code Section 53601.1)</b>	No investments in financial futures and financial option contracts are to be made without the prior approval of the Finance and Personnel Committee.

IRVINE RANCH WATER DISTRICT  
2017 AUTHORIZED INVESTMENTS

INVESTMENT	MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted)	ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS
Prohibited Investments	A local agency shall not invest any funds in inverse floaters, range notes, and mortgage derived interest-only strips, or any security that could result in zero interest accrual if held to maturity. <b>(Government Code Sections 53601.6 and 53631.5)</b>	No additional restrictions.
Local Agency Investment Fund	Permits a local agency to deposit funds with the State Treasurer for the purpose of investment in securities prescribed in Government Code Section 16430. <b>(Government Code Section 16429.1 et seq.)</b>	No additional restrictions.
Orange County Treasury Pool	Permits a local agency to deposit funds with the County Treasurer for investment in securities prescribed in Government Code Section 53601 or 53635. <b>(Government Code Section 53684)</b>	No investments are to be made with the Orange County Treasury Pool without the prior approval of the Board of Directors.
Inactive Public Deposits	Deposits or contracts with Federal Reserve System banks insured by FDIC, savings associations or federal associations which are home loan bank members or insured by FSLIC, and state or federal credit unions. Specified restrictions on credit unions.	No inactive public deposits are to be made without the prior approval of the Finance and Personnel Committee.
Public Finance Contracts	Includes interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures, or index-based agreements to hedge payment, currency, rate, spread or similar exposure. Requires certain determinations by governing body. <b>(Government Code Section 5920 et seq.)</b>	The Board is authorized to approve the general parameters for swap transaction types, maximum notional amount(s) and maximum duration(s). The Finance and Personnel Committee shall structure specific parameters for individual transactions including notional amount, transaction timing, counterparty selection, index to be used and ISDA agreement approval. <b>(Resolution 2003-36)</b>

IRVINE RANCH WATER DISTRICT  
2017 AUTHORIZED INVESTMENTS

<b>INVESTMENT</b>	<b>MAJOR PROVISIONS (G.C. 53601 OR 53635 except as noted)</b>	<b>ADDITIONAL RESTRICTIONS IMPOSED BY THE BOARD OF DIRECTORS</b>
Real Estate Investments	Authorized to invest no more than 30% of the District's Replacement Fund in real estate located in Orange County. (Water Code Section 35912)	Real estate investments shall be made in accordance with existing Board policies (Resolution 1990-30). All real estate investments must be individually approved by the Board of Directors.

## Exhibit "B"

RESOLUTION NO. 2016-\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
IRVINE RANCH WATER DISTRICT APPROVING INVESTMENT  
POLICY AND AUTHORIZING THE TREASURER AND ASSISTANT  
TREASURERS TO INVEST AND REINVEST FUNDS OF THE  
DISTRICT AND OF EACH OF ITS IMPROVEMENT DISTRICTS  
AND TO SELL AND EXCHANGE SECURITIES

WHEREAS, the Treasurer of the Irvine Ranch Water District is permitted by Section 53646 of the California Government Code to annually render to the Board of Directors a statement of investment policy, which the Board shall consider at a public meeting; and

WHEREAS, in accordance with such requirement, the Treasurer has presented an investment policy to the Board at this meeting; and

WHEREAS, Section 53607 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to invest or reinvest funds of the District or sell or exchange securities so purchased, limits the delegation to a one-year period, allows renewal by the Board on an annual basis and establishes a requirement for monthly reporting of the transactions by the Treasurer to the Board; and

WHEREAS, Section 53608 of the California Government Code permits the Board of Directors to delegate to the Treasurer of the District the Board's authority to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of indebtedness in which money of the District is invested; and

WHEREAS, under Section 53635.2 of the California Government Code, funds of the District may be deposited with certain financial institutions; and

WHEREAS, pursuant to Section V, Paragraph 8 of the District's Bylaws, the Board has appointed one or more Assistant Treasurers;

WHEREAS, Resolution No. 2015-32 contains the previous delegation by this Board of the authority to invest or reinvest funds, sell or exchange securities, deposit investments for safekeeping, and deposit funds;

NOW THEREFORE, the Board of Directors of Irvine Ranch Water District DOES HEREBY RESOLVE, DETERMINE and ORDER as follows:

Section 1. The 2017 Investment Policy of the District is approved in the form presented by the Treasurer to this meeting, to be effective January 1, 2017, and remain in effect until it is revoked or is superseded.

Section 2. The authority of the Board of Directors to invest or reinvest funds of the District and its improvement districts or sell or exchange securities so purchased, subject to the requirements of the Investment Policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurer(s), acting singly. Pursuant to Government Code Section 53607, the Treasurer shall assume full responsibility for those transactions until this delegation is revoked or expires. This delegation shall become effective January 1, 2017, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

Section 3. The authority of the Board of Directors to deposit for safekeeping the bonds, notes, bills, debentures, obligations, certificates of indebtedness, warrants or other evidences of instruments in which money of the District and its improvement districts is invested, subject to the requirements of the investment policy approved hereby, is hereby delegated to each of the Treasurer and the Assistant Treasurer(s), acting singly. This delegation shall become effective January 1, 2017, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

ADOPTED, SIGNED AND APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2016.

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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:

BOWIE, ARNESON,  
WILES & GIANNONE  
Legal Counsel – IRWD

By 

00193857/ 120116

December 12, 2016

Prepared by: Tony Mossbarger

Submitted by: Cheryl Clary

Approved by: Paul Cook

## CONSENT CALENDAR

### FINANCIAL SYSTEM UPGRADE AND PROJECT MANAGEMENT IMPLEMENTATION CONSULTANT SERVICES VARIANCE APPROVAL

#### SUMMARY:

The District's Oracle financial software upgrade and project management implementation to support changes was started in April of 2016. Changes include the District's Improvement District (ID) consolidation, implementation of the Project Management module, and the need to simplify the processing of project related transactions. A variance is needed to the professional services agreement with KPMG for changes in the Project Management, Inventory, Online Time Entry functions, and report automation. Staff recommends that the Board authorize the General Manager to execute a variance to the agreement with KPMG; Variance No. 4 in the amount of \$100,880.

#### BACKGROUND:

In February 2016, the Board authorized the General Manager to execute a professional services agreement in the amount of \$2,544,000 with KPMG for the Oracle Financial Systems Upgrade and Project Management Implementation. The upgrade includes changes necessary to implement the District's ID Consolidation configuration and simplify the system to utilize more standard out-of-the box functionality. Utilization of out-of-the-box functionality will eliminate the need for several customizations made during the original implementation which requires significant staff time to support.

A variance is needed to the professional services agreement with KPMG for changes in the Project Management module that will allow for the efficient processing of ID transactions. The variance includes necessary changes to the inventory module that will allow for efficient updates to overhead rates, changes to the online time entry module that will allow for entry of vehicle usage hours, and changes to automate expense authorization reporting.

The following is a summary of the variances for this professional services agreement:

Variance No. 1 in the amount of \$0, for a schedule change under the Director of Administrative Services' signature authority on August 22, 2016.

Variance No. 2 in the amount of \$39,000, for modifications to various Project Management, GL, and Online Time Entry functions under the Director of Administrative Services' signature authority on August 25, 2016.

Variance No. 3 in the amount of \$59,150, for modifications to various Project Management and Online Time Entry functions under the General Manager's signature authority on November 3, 2016.

Consent Calendar: Financial Systems Upgrade and Project Management Implementation  
Consultant Services Variance Approval  
December 12, 2016  
Page 2

Variance No. 4 in the amount of \$100,880, for Modifications to the Project Management, Inventory, Online Time Entry functions, and report automation is attached in Exhibit "A".

FISCAL IMPACTS:

The Financial Systems Upgrade and Project Management Implementation project, Projects 4394 and 4395, are included in the FY 2016-17 Capital Budget. The existing budget and Expenditure Authorization are sufficient to fund Variance No. 4.

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 reviewed by the Finance and Personnel Committee on December 6, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A VARIANCE TO THE AGREEMENT WITH KPMG FOR VARIANCE NO. 4 IN THE AMOUNT OF \$100,880 FOR THE FINANCIAL SYSTEMS UPGRADE AND PROJECT MANAGEMENT IMPLEMENTATION AGREEMENT.

LIST OF EXHIBITS:

Exhibit "A" – Variance No. 4 for Modifications to the Project Management, Inventory, Online Time Entry functions, and report automation

**IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE**

**EXHIBIT "A"**

Project Title: EBS Upgrade and Project Management Implementation  
 Project No.: 4394/4395 Date: 11-10-2016  
 Purchase Order No.: 528981 Variance No.: 4

Originator:  IRWD  ENGINEER/CONSULTANT  Other (Explain) \_\_\_\_\_

**Description of Variance (attach any back-up material):**

A Project Change Request is initiated to provide changes to the following functions: Project Management ID Split and Fund Pattern functionality changes, Inventory functionality for MOH rate changes, online time entry for vehicle usage, and EA report automation. Description of the changes are in the attached Project Change Request (PCR5).

**Engineering & Management Cost Impact:**

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Project Change Request #5 (PCR5)	544					100,880
<b>Total \$ =</b>						100,880

**Schedule Impact:**

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule

**Required Approval Determination:**

Total Original Contract	\$ <u>2,543,978</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.
Previous Variances \$	<u>98,150</u>	<input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.
This Variance \$	\$ <u>100,880</u>	<input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.
Total Sum of Variances	\$ <u>199,030</u>	<input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
New Contract Amount	\$ <u>2,942,038</u>	
Percentage of Total Variances to Original Contract	<u>7.7 %</u>	

ENGINEER/CONSULTANT: KPMG LLP  
Company Name

IRVINE RANCH WATER DISTRICT

\_\_\_\_\_  
Project Engineer/Manager  
Pam Follett

  
\_\_\_\_\_  
Department Director

\_\_\_\_\_  
Engineer's/Consultant's Management  
John Vaughan

\_\_\_\_\_  
General Manager/Board

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: EBS Upgrade and Project Management Module Implementation

Project No.: 4394/4395 Project Manager: Mohit Saini

Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Project Change Request # 1 – Schedule Change	8-18-2016	8-22-2016	\$0
2	Project Change Request # 2 – Modifications to Various Project Management GL, and Online Time Entry Functions	8-18-2016	8-22-2016	\$39,000
3	Project Change Request # 4 – Modifications to Various Project Management and Online Time Entry Functions.	11-02-2016	11-03-2016	\$59,150
4	Project Change Request # 5 – Modifications to the Project Management, Inventory, and Online Time Entry Modules	11-01-2016		\$100,880

# KPMG Project Change Request



<b>Document Description</b>	A Project Change Request is initiated due to a deviation from the original project scope/timeline defined in the project charter, subsequent change order(s), and/or system enhancement requests.				
<b>Client &amp; Project Name</b>	IRWD Upgrade / Projects Implementation	<b>Project ID</b>	2000506887 – Phase 1	<b>Project Sponsor</b>	Cheryl Clary
<b>Change Request Name</b>	Projects Implementation Changes	<b>Change Request ID</b>	PCR5	<b>Project Manager</b>	Pam Follett
<b>Date Submitted</b>	November 1, 2016	<b>Requester</b>	Jeff Francis	<b>Assigned to</b>	Cheryl Clary
<b>Priority</b>	Medium	<b>Status</b>	Open		

<b>Description of Change:</b>	<p>Changes have been requested as a result of the SIT test event. Additionally, IRWD has requested to exercise effort for one of the task 6 items.</p> <ul style="list-style-type: none"> <li>ID Split &amp; Fund Pattern functionality changes – option 3, Phases 3 &amp; 4: <ul style="list-style-type: none"> <li>Add the following functions to be detailed in documentation: <ul style="list-style-type: none"> <li>Delete functionality on IDs with checks on reclass period; limited to super users</li> <li>Open end period for setting to NULL (OR) have the delete button do this with checks on reclass period</li> <li>Delete icon for fund patterns</li> </ul> </li> <li>DF-302: The "Populate ID Splits" button only works once unless you exit off the page and come back into the ID Splits page. Even if you "Save" the splits, you must exit the page, then come back to make corrections.</li> </ul> </li> <li>Task 6 item: Ability to change the MOH rate for inventory on demand</li> <li>OTL Equipment Usage Hours Validation Rules – confirm usages hours for any vehicle class are not greater than the total project/task hours associated for the day.</li> <li>Automate EA Report submission and delivery through email (NB – this is anticipated to be a post go-live item) – 2 options <ul style="list-style-type: none"> <li>Option 1: Financial Plan approval workflow submits report and emails when EA is baselined</li> </ul> </li> </ul>
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<b>Recommended Solution:</b>	The level of effort and associated costs for these items are itemized below:	
	<ul style="list-style-type: none"> <li>ID Split                      200 hours                      \$39,000.00</li> <li>Inventory MOH              120 hours                      \$23,400.00</li> <li>OTL Vehicle Usage        120 hours                      \$23,400.00</li> <li>EA Report automation: <ul style="list-style-type: none"> <li>Option 1:                      104 hours                      \$15,080.00</li> </ul> </li> </ul>	Totals:                      544 hours                      \$100,880.00
<b>Total Estimated Time to Complete</b> 544 hours	<b>Cost to Complete</b> <u>\$100,880.00</u>	<b>Is the Project end Date affected?</b> <u>No</u> <b>Project End Date Change from</b> __ <b>to</b> __

This PROJECT CHANGE REQUEST is bound to the Phase 1 Statement of Work dated February 29, 2016. The following signatures authorize the described work herein to be performed.

Project Change Request (PCR)	Page: 1 of 2
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**Confidential:** Material in this document is company confidential and is intended for use by KPMG and its Customers.

**KPMG Project Change Request**



IRWD - Project Manager  
Tony Mossbarger, Director

Date

KPMG – Project Manager  
Pam Follett, Manager Advisory

Date

IRWD – Project Sponsor  
Cheryl Clary, CFO

Date

KPMG – Project Sponsor  
John Vaughan, Advisory  
Managing Director

Date

IRWD – Executive Sponsor  
Paul Cook, General Manager

Date

December 12, 2016

Prepared by: K. Lew

Submitted by: K. Burton *KL*

Approved by: Paul Cook *Paul Cook*

## CONSENT CALENDAR

### PLANNING AREA 6 (PORTOLA SPRINGS) CAPITAL IMPROVEMENTS

#### SUMMARY:

Irvine Community Development Company (ICDC) is proceeding with the Planning Area 6 (Portola Springs) development including the Neighborhood 4B and Neighborhood 5A Street Improvements projects. For both of these projects, ICDC will design and construct IRWD's recycled water capital facilities under an existing Supplemental Reimbursement Agreement. Staff recommends that the Board:

- Authorize the General Manager to accept ICDC's construction contract with Boudreau Pipeline Corporation in the amount of \$199,240 for the Portola Springs Neighborhood 4B Improvements, and
- Authorize the General Manager to accept ICDC's construction contract with Boudreau Pipeline Corporation in the amount of \$150,003 for the Portola Springs Neighborhood 5A Improvements.

#### BACKGROUND:

IRWD and ICDC have had a Reimbursement Agreement (RA) for design and construction of IRWD capital facilities in place since May 1997. Under this RA, a Supplemental Reimbursement Agreement (SRA) serves to define the improvements to be designed and constructed within a specific planning area as well as the estimated reimbursable costs.

An SRA was previously approved in April 2004 for all IRWD capital facilities within Planning Area 6. All required IRWD capital improvements are documented in the Planning Area 6 Sub-Area Master Plan Update, dated August 2013. The improvements are shown in Exhibit "A".

#### Neighborhood 4B Improvements:

Neighborhood 4B Improvements include construction of approximately 3,700 feet of 6-inch recycled water pipeline. ICDC selected Stantec to complete the Neighborhood 4B Improvements design plans. ICDC received five bids and the low bidder for the overall project, including IRWD facilities, was Boudreau Pipeline Corporation with a bid for IRWD facilities in the amount of \$199,240. The five contractors submitted bids ranging from \$186,600 to \$323,196. Although Boudreau's bid for the IRWD facilities was the second lowest, staff believes the bid is reasonable since it is within \$13,000 of the low bidder. The Bid Summary is shown in Exhibit "B". ICDC requested IRWD's concurrence of awarding the contract to Boudreau. Boudreau's bid had no irregularities and staff concurs with ICDC's recommendation to award the construction contract. ICDC also received proposals from Stantec Consulting Services Inc., Kling Consulting Group, and Michael Baker International, Inc. for construction support services and staff concurs with the selections.

A summary of the Neighborhood 4B costs is shown as follows:

Design Engineering (Stantec)	\$ 26,900.00
Construction (Boudreau Pipeline)	\$ 199,240.00
Construction Engineering (Stantec)	\$ 6,800.00
Construction Geotechnical (Kling)	\$ 3,084.00
Construction Staking (Michael Baker)	\$ 4,915.00
ICDC Administration Fee (1%)	<u>\$ 1,992.40</u>
	\$ 242,931.40

Neighborhood 5A Improvements:

Neighborhood 5A Improvements include construction of approximately 1,100 feet of 6-inch and 2,400 feet of 8-inch recycled water pipeline. ICDC selected Stantec to complete the Neighborhood 5A Improvements design plan. ICDC received six bids and the low bidder for the IRWD work was Boudreau with a bid in the amount of \$150,003; bids ranged from \$150,003 to \$217,435. The Bid Summary is shown in Exhibit "C". ICDC requested IRWD's concurrence of awarding the contract to Boudreau. The bid had no irregularities and staff concurs with ICDC's recommendation to award the construction contract to Boudreau. ICDC also received proposals from Stantec Consulting Services Inc., Kling Consulting Group, and Adams Streeter Civil Engineering, Inc. for construction support services and staff concurs with the selections.

A summary of Neighborhood 5A costs is shown as follows:

Design Engineering (Stantec)	\$ 34,800.00
Construction (Boudreau Pipeline)	\$ 150,003.00
Construction Engineering (Stantec)	\$ 6,000.00
Construction Geotechnical (Kling)	\$ 5,226.00
Construction Staking (Adams Streeter)	\$ 5,160.00
ICDC Administration Fee (1%)	<u>\$ 1,500.03</u>
	\$ 202,689.03

FISCAL IMPACTS:

Projects 5243 and 6915 are included in the FY 2016-17 Capital Budget and have sufficient budget.

ENVIRONMENTAL COMPLIANCE:

The construction of the capital facilities for Planning Area 6 is subject to the California Environmental Quality Act (CEQA) and in conformance with California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report, SCH#2001051010, was certified by the lead agency, the City of Irvine, on June 3, 2004.

COMMITTEE STATUS:

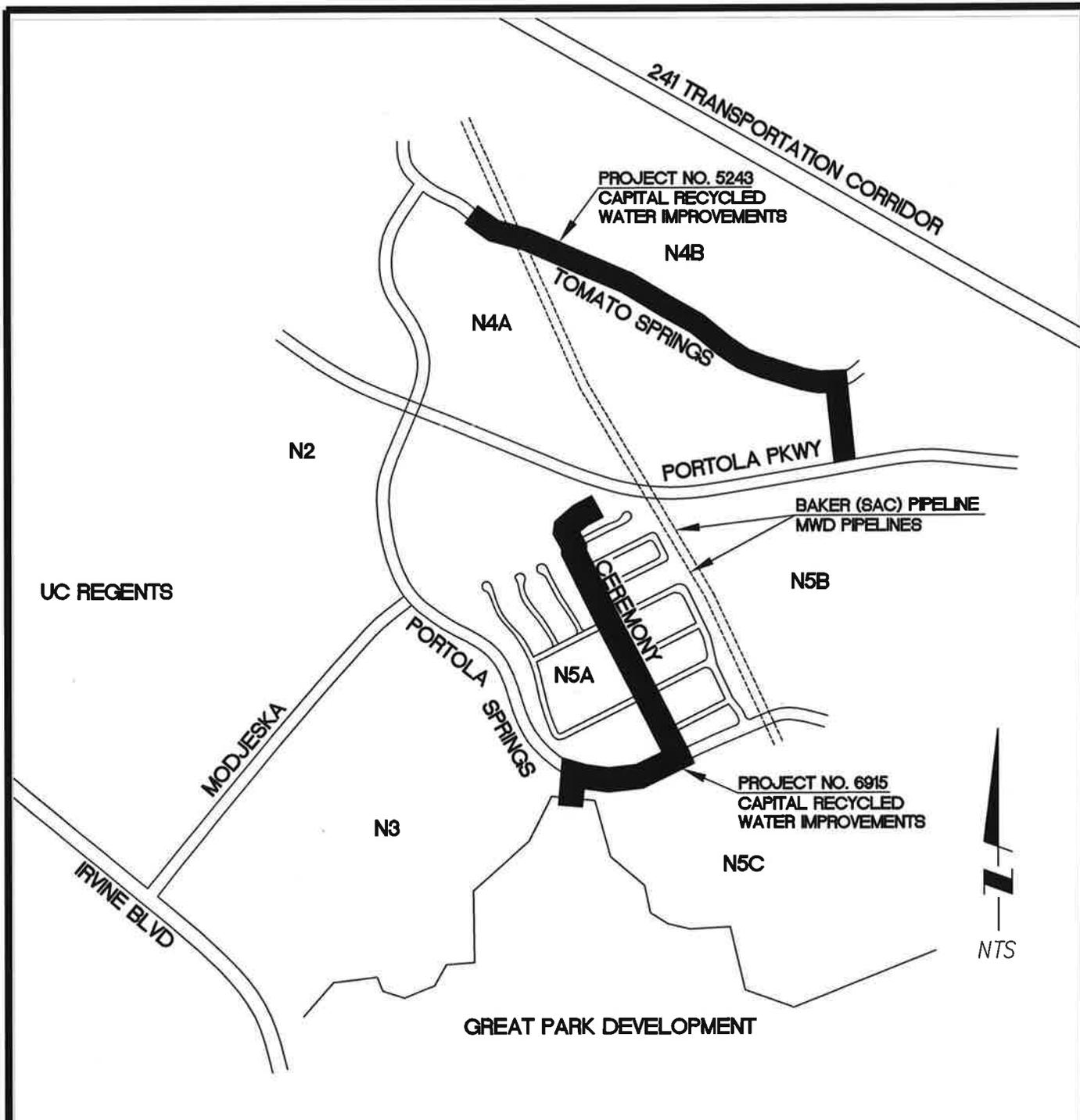
This item was reviewed by the Engineering and Operations Committee on December 2, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO ACCEPT IRVINE COMMUNITY DEVELOPMENT COMPANY'S CONSTRUCTION CONTRACT WITH BOUDREAU PIPELINE CORPORATION IN THE AMOUNT OF \$199,240 FOR THE PORTOLA SPRINGS NEIGHBORHOOD 4B IMPROVEMENTS, PROJECT 5243; AND TO ACCEPT IRVINE COMMUNITY DEVELOPMENT COMPANY'S CONSTRUCTION CONTRACT WITH BOUDREAU PIPELINE CORPORATION IN THE AMOUNT OF \$150,003 FOR THE PORTOLA SPRINGS NEIGHBORHOOD 5A IMPROVEMENTS, PROJECT 6915.

LIST OF EXHIBITS:

- Exhibit "A" – Project Location Map
- Exhibit "B" – Neighborhood 4B Improvements Bid Summary
- Exhibit "C" – Neighborhood 5A Improvements Bid Summary



NEIGHBORHOOD 4B AND 5A LOCATION MAP

EXHIBIT "A"

EXHIBIT "B"

PRE-BID MEETING DATE: June 26, 2016  
 BID OPENING DATE: July 28, 2016  
 WITNESSED BY: Tina Bechefer, Erica Manonbaux

DECLINED PRIOR TO PRE-BID  
 DO NOT SHOW AT PRE-BID  
 DID NOT SUBMIT: Sheffield, Fytas

**BID SUMMARY**  
 PORTOLA SPRINGS ENCLAVE 59 STREET IMPROVEMENTS  
 CONTRACT "B1" - WET UTILITIES NON-ASSESSMENT DISTRICT, ASSESSMENT DISTRICT 04-20 AND IRWD CAPITAL IMPROVEMENTS (PREVAILING WAGE)  
 BID PACKAGE: B00280  
 TASK PCID: LD-0006 ST 45.cmf1  
 APPROXIMATELY 4,000 LINEAR FEET OF STREET IMPROVEMENTS (3,000 LINEAR FEET FOR TOMATO SPRINGS ROAD AND 600 LINEAR FEET FOR PEAR BLOSSOM)

<b>IRWD 2ND BIDDER</b> LOW BIDDER BOUDREAU PIPELINE	<b>IRWD LOW BIDDER</b> 2ND BIDDER IRVINE PIPELINE	<b>IRWD 4TH BIDDER</b> 3RD BIDDER PAULUS ENGINEERING	<b>IRWD 3RD BIDDER</b> 4TH BIDDER CLEARWATER	<b>IRWD 5TH BIDDER</b> 5TH BIDDER L&S CONSTRUCTION
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**CHECK LIST**  
 Required items to be included in bid package:

- Signed Addendum Nos. 1-5
- Corporate Seal (if applicable)
- Correct Signatures (Page V-3)
- Bid Totals Correctly
- List of Subcontractors
- Equipment/Material Source Information
- Contractors Rates/Reviewed
- 10% Bid Bond
- Construction Schedule
- Non-Collusion Certificate
- Contractor Prequalified

Comments	Comments	Comments	Comments	Comments
X X X X X X X X X X X	X X X X X X X X X X X	X X X X X X X X X X X MISSING SIGNATURE	X X X X X X X X X X X MISSING SIGNATURE NOT INCLUDED	X X X X X X X X X X X NOT INCLUDED

ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL								
<b>iii. DELETABLES - IRWD CAPITAL</b>												
The following items may or may not be a part of the Contract.												
<b>i. GENERAL</b>												
62 MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE)	1	LS	\$2,999.00	\$2,999.00	\$3,000.00	\$3,000.00	\$4,300.00	\$4,300.00	\$1,965.00	\$1,965.00	\$5,000.00	\$5,000.00
63 DEVELOP CONSTRUCTION WATER	1	LS	\$1,030.00	\$1,030.00	\$2,000.00	\$2,000.00	\$2,154.99	\$2,154.99	\$1,500.00	\$1,500.00	\$5,000.00	\$5,000.00
64 PAYMENT AND PERFORMANCE BONDS	1	LS	\$2,400.00	\$2,400.00	\$2,000.00	\$2,000.00	\$1,077.73	\$1,077.73	\$3,000.00	\$3,000.00	\$5,000.00	\$5,000.00
65 TRAFFIC CONTROL	1	LS	\$1.00	\$1.00	\$1,000.00	\$1,000.00	\$150.00	\$150.00	\$500.00	\$500.00	\$7,500.00	\$7,500.00
66 INTERIM EROSION AND SEDIMENT CONTROL	1	LS	\$1,800.00	\$1,800.00	\$1,000.00	\$1,000.00	\$1,615.00	\$1,615.00	\$500.00	\$500.00	\$2,500.00	\$2,500.00
67 ALL ELSE REQUIRED TO CONSTRUCT THE WORK, NOT LISTED ON THE SCHEDULE OF VALUES, BUT INCLUDED ON THE PLANS AND SPECIFICATIONS	1	LS	\$3,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$100.00	\$100.00	\$500.00	\$500.00	\$1.00	\$1.00
<b>J. IRWD CAPITAL RECYCLED WATER IMPROVEMENTS</b>												
68 CONSTRUCT 6" PURPLE PVC AWWA C-900 DR-14 AND TRENCHING PER IRWD STD. DWG. W-17 AND CITY OF IRVINE STD. PLAN NO. 223	3,690	LF	\$29.00	\$107,010.00	\$25.00	\$92,250.00	\$33.05	\$121,954.50	\$30.40	\$112,176.00	\$52.00	\$191,880.00
69 INSTALL 4" BLOWOFF/BOTTOM DRAIN ASSEMBLY PER IRWD STD. DWG. W-14	2	EA	\$6,900.00	\$13,800.00	\$9,200.00	\$18,400.00	\$5,562.07	\$11,124.14	\$7,660.00	\$15,320.00	\$3,000.00	\$18,000.00
70 INSTALL 18" O.D. (8/16" WALL THICKNESS) STEEL CASING PER IRWD STD. DWG. W-21	130	LF	\$100.00	\$13,000.00	\$150.00	\$19,500.00	\$153.78	\$19,991.40	\$110.00	\$14,300.00	\$185.00	\$24,050.00
71 INSTALL 1" AIR AND VACUUM RELEASE PER IRWD STD. DWG. W-11	6	EA	\$2,700.00	\$16,200.00	\$2,200.00	\$13,200.00	\$2,589.19	\$15,535.14	\$3,165.00	\$18,990.00	\$3,600.00	\$21,600.00
72 INSTALL 6" X 6" X 4" (FE X FE X FE) DI TEE AND THRUST BLOCK PER IRWD STD. DWG. W-16	4	EA	\$300.00	\$1,200.00	\$350.00	\$1,400.00	\$473.09	\$1,892.36	\$605.00	\$2,420.00	\$300.00	\$1,200.00
73 INSTALL 6" (FE X FE) BUTTERFLY VALVE PER IRWD STD. DWGS. W-22 AND W-23, AND THRUST BLOCK PER IRWD STD. DWG. W-16	8	EA	\$1,800.00	\$15,200.00	\$1,600.00	\$12,800.00	\$1,406.16	\$11,249.44	\$2,055.00	\$16,440.00	\$2,300.00	\$18,400.00
74 INSTALL 6" DI SPOOL (FE X FE) AND TRENCHING PER IRWD STD. W-17 AND CITY OF IRVINE STD. PLAN NO. 223	1	EA	\$1,300.00	\$1,300.00	\$600.00	\$600.00	\$1,113.00	\$1,113.00	\$555.00	\$555.00	\$1,100.00	\$1,100.00
75 INSTALL 6" (FE X PO) DI ADAPTER	8	EA	\$150.00	\$1,200.00	\$150.00	\$1,200.00	\$456.17	\$3,649.36	\$185.00	\$1,480.00	\$2,400.00	\$2,400.00
76 INSTALL 6" BLIND FLANGE	1	EA	\$120.00	\$120.00	\$150.00	\$150.00	\$384.87	\$384.87	\$95.00	\$95.00	\$225.00	\$225.00
77 INSTALL 6" X 6" X 6" (FE X FE X FE) DI TEE AND THRUST BLOCK PER IRWD STD. DWG. W-16	4	EA	\$280.00	\$1,120.00	\$300.00	\$1,200.00	\$458.49	\$1,833.96	\$605.00	\$2,420.00	\$300.00	\$1,200.00
78 INSTALL 6" 22 1/2" DI BEND (PO X PO) AND THRUST BLOCK PER IRWD STD. DWG. W-16	4	EA	\$210.00	\$840.00	\$150.00	\$600.00	\$389.56	\$1,558.24	\$265.00	\$1,060.00	\$200.00	\$800.00
79 INSTALL CASING TEST STATION PER IRWD STD. DWG. CP-3	2	EA	\$1,460.00	\$2,920.00	\$1,200.00	\$2,400.00	\$870.81	\$1,741.62	\$2,600.00	\$5,200.00	\$1,100.00	\$2,200.00
80 REMOVE EXISTING END OF LINE FLUSH-OUT ASSEMBLY PER IRWD STD. DWG. W-12 AND CONNECT TO EXISTING 6" PVC RW WITH 6" FLANGED COUPLING ADAPTER	1	EA	\$2,400.00	\$2,400.00	\$1,200.00	\$1,200.00	\$1,028.81	\$1,028.81	\$2,245.00	\$2,245.00	\$2,200.00	\$2,200.00
81 INSTALL 6" 22 1/2" VERTICAL DI BEND (FE X MJ) AND THRUST BLOCK PER IRWD STD. DWG. W-16	2	EA	\$350.00	\$700.00	\$300.00	\$600.00	\$650.40	\$1,300.80	\$250.00	\$500.00	\$200.00	\$400.00
82 ADJUST VALVE CAP TO BASE GRADE	16	EA	\$6,560.00	\$6,560.00	\$5,600.00	\$5,600.00	\$425.53	\$6,808.48	\$85.00	\$1,360.00	\$425.00	\$6,800.00
83 ADJUST VALVE TO FINAL GRADE	16	EA	\$330.00	\$5,280.00	\$400.00	\$6,400.00	\$425.53	\$6,808.48	\$185.00	\$2,960.00	\$425.00	\$6,800.00
<b>TOTAL DELETABLES - IRWD CAPITAL IMPROVEMENTS (SECTIONS I-J)</b>				<b>\$195,248.00</b>		<b>\$186,600.00</b>		<b>\$215,026.45</b>		<b>\$203,911.00</b>		<b>\$323,196.00</b>

EXHIBIT "C"

\_\_\_\_ Dave Corley  
 \_\_\_\_ Mike Morse  
 \_\_\_\_ Aaron Beck  
 \_\_\_\_ File with Bid Key Map  
 \_\_\_\_ May Dehna - Cost Matrix

PRE-BID MEETING DATE June 28, 2016  
 BID OPENING DATE July 21, 2016  
 WITNESSED BY Tim Becherder  
 Erica Manoncaux

DECLINED PRIOR TO PRE-BID: IRWDG 70714  
 NO SHOW AT PRE-BID:  
 DID NOT SUBMIT: SMOFFETT PIPELINE

**BID SUMMARY**  
 PORTOLA SPRINGS (PA 6) ENCLAVE SA STREET IMPROVEMENTS  
 CONTRACT "B1" - WET UTILITIES ASSESSMENT DISTRICT 04-20, NON-ASSESSMENT DISTRICT AND IRWD CAPITAL IMPROVEMENTS

BID PACKAGE: 800289  
 TASK PCID: LD-5006/ST-22.CM7  
 APPROXIMATELY 6500 LINEAR FEET OF STREET IMPROVEMENTS

LOW BIDDER BOULDEAU	2ND BIDDER PAULUS	3RD BIDDER IRVINE PIPELINE	4TH BIDDER L&S	5TH BIDDER KANA	6TH BIDDER CLEARWATER
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**CHECK LIST**

Required items to be included in bid package:

- Signed Addendum Item 1-5
- Corporate Seal (if applicable)
- Correct Signatures (Page V-3)
- Bid Tables Correctly
- List of Subcontractors
- Equipment/Material Source Information
- Contractors Rates/Reviewed
- 10% Bid Bond
- Construction Schedule
- Non-Collusion Certificate
- Contractor Prequalified

Comments	Comments	Comments	Comments	Comments	Comments
MISSING SIGNATURES					
NOT INCLUDED					

CODES	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
<b>III. DETAILABLES - IRWD CAPITAL</b>																
The following items may or may not be a part of the Contract																
<b>A. GENERAL</b>																
174	MOBILIZATION (NOT TO EXCEED 2% OF CONTRACT PRICE)	1	LS	\$4,300.00	\$4,300.00	\$5,381.00	\$5,381.00	\$3,500.00	\$3,500.00	\$1,600.00	\$1,600.00	\$2,500.00	\$2,500.00	\$15,000.00	\$15,000.00	
175	DEVELOP CONSTRUCTION WATER	1	LS	\$1,500.00	\$1,500.00	\$1,614.00	\$1,614.00	\$10,000.00	\$10,000.00	\$2,500.00	\$2,500.00	\$900.00	\$900.00	\$2,500.00	\$2,500.00	
176	PAYMENT AND PERFORMANCE BONDS	1	LS	\$2,100.00	\$2,100.00	\$3,500.00	\$3,500.00	\$3,000.00	\$3,000.00	\$1,600.00	\$1,600.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	
177	TRAFFIC CONTROL	1	LS	\$0.00	\$0.00	\$269.00	\$269.00	\$5,000.00	\$5,000.00	\$3,500.00	\$3,500.00	\$500.00	\$500.00	\$1,500.00	\$1,500.00	
178	INTERIM EROSION AND SEDIMENT CONTROL	1	LS	\$0.00	\$0.00	\$638.00	\$638.00	\$2,000.00	\$2,000.00	\$4,800.00	\$4,800.00	\$4,500.00	\$4,500.00	\$1,000.00	\$1,000.00	
179	ALL ELSE REQUIRED TO CONSTRUCT THE WORK NOT LISTED ON THE SCHEDULE OF VALUES, BUT INCLUDED ON THE PLANS AND SPECIFICATIONS	1	LS	\$0.00	\$0.00	\$288.00	\$288.00	\$2,000.00	\$2,000.00	\$1.00	\$1.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
<b>K. IRWD CAPITAL RECYCLED WATER IMPROVEMENTS</b>																
177	CONSTRUCT 6" AWWA C-300 PVC PURPLE PIPE, (DR-14) & TRENCHING PER IRWD STD DWG W-17	1,049	LF	\$27.00	\$28,323.00	\$32.00	\$33,568.00	\$30.00	\$31,470.00	\$45.00	\$47,205.00	\$39.00	\$40,911.00	\$30.00	\$31,470.00	
178	CONSTRUCT 8" AWWA C-300 PVC PURPLE PIPE, (DR-14) & TRENCHING PER IRWD STD DWG W-17	2,367	LF	\$30.00	\$71,010.00	\$36.00	\$85,212.00	\$35.00	\$82,845.00	\$55.00	\$130,185.00	\$45.00	\$106,515.00	\$35.00	\$82,845.00	
179	INSTALL 8" (IRWDV) RESILIENT WEDGE GATE VALVE, (FE) AWWA C-309, CLASS 150 & THRUST BLOCK PER IRWD STD DWGS W-22 & W-16	3	EA	\$870.00	\$2,610.00	\$1,188.00	\$3,588.00	\$1,200.00	\$3,600.00	\$1,600.00	\$4,800.00	\$1,764.00	\$5,292.00	\$1,700.00	\$5,100.00	
180	INSTALL 8" (IRWDV) RESILIENT WEDGE GATE VALVE, (FE) AWWA C-309, CLASS 150 & THRUST BLOCK PER IRWD STD DWGS W-22 & W-16	2	EA	\$1,200.00	\$2,400.00	\$1,600.00	\$3,200.00	\$1,800.00	\$3,600.00	\$1,900.00	\$3,800.00	\$2,104.00	\$4,208.00	\$2,000.00	\$4,000.00	
181	INSTALL 1" (AV) AIR RELEASE & VACUUM RELIEF ASSEMBLY PER IRWD STD DWG W-11	1	EA	\$2,400.00	\$2,400.00	\$2,307.00	\$2,307.00	\$2,000.00	\$2,000.00	\$3,500.00	\$3,500.00	\$3,694.00	\$3,694.00	\$2,000.00	\$2,000.00	
182	INSTALL 8"x4" DI TEE (FE), (REDUCING ON THE BRANCH), & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$280.00	\$280.00	\$507.00	\$507.00	\$300.00	\$300.00	\$450.00	\$450.00	\$299.00	\$299.00	\$500.00	\$500.00	
183	INSTALL 8"x4" DI CROSS (FE), (REDUCING ON THE BRANCH), & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$310.00	\$310.00	\$477.00	\$477.00	\$350.00	\$350.00	\$550.00	\$550.00	\$361.00	\$361.00	\$615.00	\$615.00	
184	INSTALL 8"x4" DI CROSS (FE), (REDUCING ON THE BRANCH), & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$400.00	\$400.00	\$520.00	\$520.00	\$450.00	\$450.00	\$775.00	\$775.00	\$414.00	\$414.00	\$1,720.00	\$1,720.00	
184	CONSTRUCT 8" (33.75" COMPOUND BEND, 22.5" DI BEND (PO/FE) W/ 11.25" BEND (FE/PO) & THRUST BLOCK PER IRWD STD DWG W-16	3	EA	\$840.00	\$2,520.00	\$395.00	\$1,185.00	\$400.00	\$1,200.00	\$596.00	\$1,788.00	\$1,350.00	\$4,050.00	\$575.00	\$1,725.00	
185	INSTALL 8" 11.25" DI BEND (PO) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$270.00	\$270.00	\$395.00	\$395.00	\$250.00	\$250.00	\$350.00	\$350.00	\$314.00	\$314.00	\$330.00	\$330.00	
186	INSTALL 8" 22.5" DI BEND (PO) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$210.00	\$210.00	\$350.00	\$350.00	\$250.00	\$250.00	\$350.00	\$350.00	\$311.00	\$311.00	\$285.00	\$285.00	
187	INSTALL 8" 45" DI BEND (PO) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$230.00	\$230.00	\$362.00	\$362.00	\$250.00	\$250.00	\$350.00	\$350.00	\$328.00	\$328.00	\$285.00	\$285.00	
188	INSTALL 8" 90" DI BEND (PO) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$220.00	\$220.00	\$403.00	\$403.00	\$330.00	\$330.00	\$350.00	\$350.00	\$334.00	\$334.00	\$285.00	\$285.00	
189	INSTALL 8"x8" REDUCING 50" DI BEND (PO) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$500.00	\$500.00	\$448.00	\$448.00	\$300.00	\$300.00	\$380.00	\$380.00	\$300.00	\$300.00	\$675.00	\$675.00	
190	INSTALL 6" DI TEE (FE) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$280.00	\$280.00	\$407.00	\$407.00	\$300.00	\$300.00	\$275.00	\$275.00	\$283.00	\$283.00	\$500.00	\$500.00	
191	INSTALL 8" DI (FE/PO) ADAPTOR	4	EA	\$170.00	\$680.00	\$410.00	\$1,640.00	\$150.00	\$600.00	\$300.00	\$1,200.00	\$1,560.00	\$620.00	\$2,520.00	\$150.00	\$600.00
192	INSTALL 6" DI (FE/PO) ADAPTOR	4	EA	\$150.00	\$600.00	\$385.00	\$1,540.00	\$150.00	\$600.00	\$300.00	\$1,200.00	\$1,200.00	\$480.00	\$1,920.00	\$150.00	\$600.00
193	CONSTRUCT TEMPORARY FLUSH ASSEMBLY PER IRWD STD DWG W-12	1	EA	\$800.00	\$800.00	\$1,140.00	\$1,140.00	\$1,000.00	\$1,000.00	\$1,050.00	\$1,050.00	\$1,650.00	\$1,650.00	\$2,224.00	\$2,224.00	
194	CONSTRUCT 18" STEEL CHANGING W/ STEEL WALL THINW/ PER IRWD STD DWG W-21	180	LF	\$140.00	\$25,200.00	\$110.00	\$19,800.00	\$110.00	\$19,800.00	\$125.00	\$22,500.00	\$100.00	\$18,000.00	\$100.00	\$18,000.00	
195	INSTALL 4" WIRE CASING OPTS PER IRWD STD DWG W-3	2	EA	\$1,400.00	\$2,800.00	\$241.00	\$582.00	\$1,000.00	\$1,000.00	\$1,150.00	\$2,300.00	\$4,400.00	\$8,800.00	\$1,300.00	\$2,600.00	
196	INSTALL 6" 11.25" DI BEND (PO) & THRUST BLOCK PER IRWD STD DWG W-16	1	EA	\$190.00	\$190.00	\$330.00	\$330.00	\$250.00	\$250.00	\$290.00	\$290.00	\$253.00	\$253.00	\$310.00	\$310.00	
197	INSTALL 6" DI (FE) BLIND FLANGE (FOR FUTURE CONNECTION BY OTHERS)	1	EA	\$160.00	\$160.00	\$371.00	\$371.00	\$150.00	\$150.00	\$240.00	\$240.00	\$246.00	\$246.00	\$150.00	\$150.00	
198	ADJUST VALVE CAP TO BASE GRADE	3	EA	\$380.00	\$1,140.00	\$420.00	\$1,260.00	\$350.00	\$1,050.00	\$400.00	\$1,200.00	\$320.00	\$960.00	\$150.00	\$450.00	
199	ADJUST VALVE TO FINAL GRADE	6	EA	\$310.00	\$1,860.00	\$426.00	\$2,556.00	\$400.00	\$2,400.00	\$500.00	\$3,000.00	\$350.00	\$2,100.00	\$180.00	\$1,080.00	
<b>TOTAL BASE CONTRACT - IRWD CAPITAL IMPROVEMENTS (SECTIONS A-K)</b>					<b>\$180,000.00</b>		<b>\$182,120.00</b>		<b>\$185,615.00</b>		<b>\$287,196.00</b>		<b>\$203,827.00</b>		<b>\$217,436.00</b>	

December 12, 2016

Prepared by: A. Murphy/M. Cortez

Submitted by: K. Burton (KLB)

Approved by: Paul Cook

## CONSENT CALENDAR

### MICHELSON WATER RECYCLING PLANT FILTER PUMP STATION 2 AND WELLS 12 AND 13 ROOF MODIFICATIONS FINAL ACCEPTANCE

#### SUMMARY:

The Michelson Water Recycling Plant Filter Pump Station 2 (MWRP FPS2) and Wells 12 and 13 Roof Modifications project is complete. The contractor, Schuler Constructors, has completed the required work and all punch list items. The project has received final inspection and acceptance of construction is recommended.

#### BACKGROUND:

The MWRP FPS2 and Wells 12 and 13 Roof Modifications Project modified the existing building roofs at three pumping facilities to allow the pump equipment to be lifted and removed vertically.

Kleinfelder completed the design in March 2016. Schuler Constructors was awarded the construction contract on May 25, 2016 and completed construction of the improvements on November 4, 2016.

Project Title:	MWRP FPS2 and Wells 12 and 13 Roof Modifications Project
Project No.:	5453 and 5469
Design Engineer:	Kleinfelder
Construction Management by:	IRWD Staff/ Kleinfelder
Contractor:	Schuler Constructors
Original Contract Cost:	\$501,469.00
Final Contract Cost:	\$534,877.61
Original Contract Days:	160
Final Contract Days:	164
Final Change Order Approved On:	October 27, 2016

FISCAL IMPACTS:

Projects 5453 and 5469 are included in the FY 2016-17 Capital Budget and the existing budgets are sufficient to fund the final payment for the project.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was prepared and filed with the County of Orange on May 29, 2015.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE MICHELSON WATER RECYCLING PLANT FILTER PUMP STATION 2 AND WELLS 12 AND 13 ROOF MODIFICATIONS, PROJECTS 5453 AND 5469; 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 12, 2016

Prepared by: M. Jack/K. Lew

Submitted by: K. Burton 

Approved by: Paul Cook 

## ACTION CALENDAR

### ON-CALL CONSTRUCTION INSPECTION SERVICES VARIANCE

#### SUMMARY:

The current construction inspection workload for capital, development and operational improvement projects continues to exceed a level that can be supported by the District's inspection staff. Staff recommends that the Board authorize the General Manager to execute Variance No. 1 with CivilSource in the amount of \$1,219,360 for two inspectors over a period of two years for on-call construction inspection services.

#### BACKGROUND:

The District's current and upcoming inspection workload for capital, development and operational improvement projects continues to exceed the level that can be supported by the District's staff. The District's construction inspection group consists of six staff inspectors and four on-call consultant inspectors who are currently responsible for the inspection, field coordination, documentation and record drawing preparation of over 415 projects spread across the District. Based on currently active and upcoming construction projects planned by the Irvine Company, FivePoint Communities, Lennar, Toll Brothers and the Cities of Tustin and Lake Forest, staff anticipates the need for continued consultant field inspection support for a period of up to two years. Upon completion of the current high volume of construction projects, staff anticipates that these inspection services will no longer be required as the workload should return to a level that can be supported by District inspection staff.

In January 2014, the Board awarded a Professional Services Agreement to CivilSource, a construction management and inspection services company, in the amount of \$851,360 for on-call field inspection services. CivilSource is currently providing two experienced inspectors under its on-call contract that have worked well within the District's inspection group and have demonstrated the ability to inspect and coordinate multiple projects simultaneously.

Funds for the current agreement with CivilSource will be expended by February 2017. Due to the experience, attention to detail and quality work of the current consultant inspectors, staff requests a variance for continued inspection services. CivilSource's fully-burdened rate is \$118 per hour for its senior inspectors, which includes a truck and fuel, cell phone and laptop computer. The billing rate has increased 20% from the original contract with modifications to account for prevailing wage, medical and administrative increases, and compliance with the new Department of Industrial Relations certified payroll requirements. The new billing rate for CivilSource is the same as the new billing rate for AndersonPenna, the consultant that provides the other two inspectors. Staff recommends executing Variance No. 1 with CivilSource in the amount of \$1,219,360 for two inspectors for two additional years of on-call field inspection services. Variance No. 1 is shown in Exhibit "A".

FISCAL IMPACTS:

Funding for the construction inspection services will be provided from the various developer and capital projects being constructed as part of each project's budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 2, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 1 WITH CIVILSOURCE IN THE AMOUNT OF \$1,219,360 FOR ON-CALL CONSTRUCTION INSPECTION SERVICES FOR TWO INSPECTORS FOR A TWO-YEAR PERIOD.

LIST OF EXHIBITS:

Exhibit "A" – CivilSource On-Call Inspection Variance No. 1

# EXHIBIT "A"

CivilSource

November 3, 2016

Mike Jack  
Construction Inspection Manager  
Irvine Ranch Water District  
15600 Sand Canyon Ave.  
Irvine CA, 92618

**SUBJECT: VARIANCE TO THE ON-CALL INSPECTION SERVICES**

Dear Mr. Jack,

CivilSource, Inc. would like to submit this letter to Irvine Ranch Water District to request a variance to the Construction Inspection Services on an on-call basis.

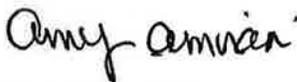
We will continue to provide two inspectors, Joe Lara and James Remus for two additional more years. Our proposed fully loaded all-inclusive hourly rate for each inspector currently is \$98. We would like to adjust our rate to \$118.00 to reflect the current COLA, vehicle, medical and administrative expenses as follows:

Current Rate	\$98.00
COLA	\$1.00
Vehicle	\$5.00
Medical & Administrative	<u>\$14.00</u>
New Regular Rate	\$118.00
OT Rate (40%)	\$165.00

Services will be conducted as requested by Irvine Ranch Water District, and be billed on an hourly basis, with a total cost under this variance not to exceed \$1,219,360.

Should you have any questions or require additional information, please contact me at (949) 585-0477 or amy@civil-source.com.

Respectfully,  
**CIVILSOURCE, INC.**



Amy Amirani, P.E.  
Principal

# IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: On – Call Construction Inspection Services

Project No.: \_\_\_\_\_ Date: 11/03/2016  
 Purchase Order No.: 523870 Variance No.: 1

Originator:      IRWD      ENGINEER/CONSULTANT      Other (Explain) \_\_\_\_\_

Description of Variance (*attach any back-up material*):

Contract Extension  
Rate Adjustment

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Construction Inspector	8320	\$118				\$981,760
Construction Inspector	1440	\$165				\$237,600
<b>Total \$ =</b>						<b>\$1,219,360</b>

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule
1	On-Call Inspection	10/2014 – 10/2016	24 Months Extension	11/2016 – 11/2018

Required Approval Determination:

Total Original Contract <u>\$815,360</u>  Previous Variances \$0 This Variance <u>\$1,219,360</u>  Total Sum of Variances <u>\$1,219,360</u> New Contract Amount <u>\$2,034,720</u>  Percentage of Total Variances to Original Contract <u>149.55 %</u>	<input type="checkbox"/> Director: Cumulative total of Variances less than or equal to \$50,000.  <input type="checkbox"/> Executive Director: Cumulative total of Variances less than or equal to \$75,000.  <input type="checkbox"/> General Manager: Cumulative total of Variances less than or equal to \$100,000.  <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$100,000.
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ENGINEER/CONSULTANT: Civil Source, Inc.  
 Company Name

Amy Amnan                     11/03/2016  
 Project Engineer/Manager             Date

\_\_\_\_\_  
 Engineer's/Consultant's Management     Date

IRVINE RANCH WATER DISTRICT

K/L Kevin L. Burt                     11/21/16  
 Department Director                     Date

\_\_\_\_\_  
 General Manager/Board                     Date

December 12, 2016

Prepared by: D. Johnson

Submitted by: F. Sanchez/P. Weghorst

Approved by: Paul Cook

## ACTION CALENDAR

### CONSULTANT SELECTION TO USE AERIAL IMAGERY TO DETERMINE IRRIGATED AREAS

#### SUMMARY:

Advances in aerial imagery and remote sensing techniques provide a cost-effective approach to identifying and measuring irrigated areas at a parcel level. Staff recommends using such an approach to determine irrigated areas for all parcels within IRWD's service area. The information will be used by staff to evaluate the accuracy of irrigated area data being developed by the State Water Resources Control Board and the California Department of Water Resources (State Agencies) for use in the proposed Long-Term Conservation Framework. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with Eagle Aerial Solutions to provide aerial imagery and irrigated area analysis services in the amount of \$159,299.

#### BACKGROUND:

IRWD first implemented its water budget-based rate structure in 1991. The rate structure provides customers with equitable water budgets based on property needs and characteristics that take into consideration irrigated area. Over the years, IRWD has obtained irrigated area data from a variety of sources, including on-site measurements, irrigation plans and using a method based on landscape area to lot size ratios. In the past, determining irrigated areas through the use of aerial imagery was not pursued on a district-wide basis because of previous technology limitations, data accuracy issues and high costs. In recent years there have been significant improvements in technology that have resulted in more accurate aerial imagery measurement techniques and a corresponding reduction in cost. In 2015, these improvements allowed IRWD to successfully implement a pilot project to calculate irrigated areas in the Orange Park Acres (OPA) portion of IRWD's service area.

#### Pilot Project in Orange Park Acres:

In 2015, Eagle Aerial Solutions completed a pilot project for IRWD which determined irrigated landscape areas for parcels within the OPA area. The project used high resolution aerial imagery in combination with remote sensing and Geographic Information System (GIS) technologies to calculate irrigated acreages to within a 95% accuracy. As a result of the pilot project, Eagle Aerial was able to determine surface areas within each parcel in the OPA area based on the following characteristics:

- Impervious surfaces;
- Swimming pools;
- Irrigable surfaces;
- Irrigated turf;

- Irrigated non-turf;
- Native vegetation;
- Artificial turf; and
- Horse corrals and arenas.

The pilot project resulted in cost-effective and accurate surface areas which were used to calculate outdoor water budgets for OPA customers during the transition to IRWD's rate structure.

#### Statewide Long-Term Conservation Framework:

In 2016, Governor Brown issued Executive Order B-37-16 which directed the State Agencies to develop a Long-Term Conservation Framework. The draft framework was issued in early December 2016 and includes requirements to establish water budgets for each water agency in the state based on indoor water use and outdoor efficiency standards. If implemented, the proposed outdoor efficiency standard will require the State Agencies to develop irrigated area data for each water agency in the state. The State Agencies are considering various approaches to developing the irrigated area data. It will be critical that the selected approach provide accurate data that will be used to establish water budgets for each agency. Each agency's compliance with the Long-Term Conservation Framework will be measured by comparing actual water use to its established water budget.

#### Developing Parcel Level Database:

Given the importance of having accurate irrigated area data that the State Agencies can use in determining IRWD's water budget, staff recommends that IRWD use aerial imagery to develop an accurate irrigated area parcel level database for the entire service area. The database will be developed using high resolution aerial imagery in combination with applying advanced remote sensing and GIS technologies. The use of this approach will result in the following:

- A district-wide standardized methodology to determine customer water budgets based on accurate aerial measurement techniques;
- The ability to assess changes in landscape area over time and to update information, including the addition of irrigated areas associated with new developments;
- The ability to use IRWD data to evaluate and assess the accuracy of the methodologies developed by the State Agencies as part of the Long-Term Conservation Framework; and
- The ability to assist the State Agencies with developing a water budget for IRWD.

#### Consultant Selection Process:

Eagle Aerial is uniquely qualified for several reasons to conduct a district-wide project to determine irrigated areas using aerial images with advanced remote sensing and GIS technologies. First, Eagle Aerial was successful in completing a pilot project involving similar work for the OPA portion of IRWD's service area. Second, Eagle Aerial's proven remote sensing and GIS analysis techniques provide irrigated area data that is 95% accurate when compared with actual on-site landscape measurements. As a result of completing the highly

accurate prior work, staff believes that Eagle Aerial is uniquely qualified to develop a district-wide parcel level database of irrigated areas.

Scope of Work:

Staff has worked with Eagle Aerial to develop a proposed scope of work to process high-resolution aerial imagery to prepare a parcel level irrigated area database for IRWD's entire service area. Eagle Aerial's proposed scope of work is attached as Exhibit "A". Staff has negotiated with Eagle Aerial in the development of the associated costs and schedule which are considered to be fair and reasonable. The scope of work includes an optional task to update irrigated areas on an annual basis based on land development activities that are occurring within IRWD's service area. Key strengths of Eagle Aerial's scope of work are as follows:

- Eagle Aerial already possesses recent three-inch resolution aerial imagery for IRWD's entire service area, so work on irrigated area calculations can begin immediately;
- Eagle Aerial's proposed approach includes specific enhancements that address issues such as irrigated areas in parkways and medians, the impacts of steep slopes on area calculations and parcel data errors;
- Eagle Aerial's demonstrated track record and proven methodology in accurately calculating landscape area from aerial imagery; and
- A relatively short timeframe to complete the project in 90-120 days. This timeframe will provide staff with irrigated area data in time to be used for comparison purposes with data developed by the State Agencies.

FISCAL IMPACTS:

Funding for this project is included in the adopted Fiscal Year 2016-17 Operating Budget.

ENVIRONMENTAL COMPLIANCE:

This study is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15262, which provides exemption for planning studies.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications Committee on December 8, 2016.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH EAGLE AERIAL SOLUTIONS TO PROVIDE AERIAL IMAGERY IRRIGATED AREA ANALYSIS SERVICES IN THE AMOUNT OF \$159,299 WHICH INCLUDES AN OPTIONAL \$38,486 IN SERVICES TO

Action Calendar: Consultant Selection to use Aerial Imagery to Determine Irrigated Areas  
December 12, 2016  
Page 4

UPDATE THE ANALYSIS RESULTS TO ACCOUNT FOR CHANGES IN IRRIGATED  
AREA THAT WILL OCCUR IN FISCAL YEAR 2017-18.

LIST OF EXHIBITS:

Exhibit "A" – Eagle Aerial Solutions Scope of Work



Eagle Aerial Solutions

# EXHIBIT "A"

## Water Conservation Proposal for; IRVINE RANCH WATER DISTRICT

### RE: WATER MANAGEMENT STRATEGY FOR IRVINE RANCH WATER DISTRICT

3420 Bristol St. 6<sup>th</sup> Fl.  
Costa Mesa CA 92626  
714-754-7670  
www.eagleaerial.com

Eagle Aerial Solutions appreciates the opportunity to present to Irvine Ranch Water District ("IRWD") this Scope of Work (SOW) for processing high-resolution imagery for all the parcels (approx. 77,896) within the IRWD District which covers 182 sq. miles (per the boundary provided) of Orange County, CA . The following is a brief synopsis of our services, specifications, and costs for this project, which covers all parcels within the district. All layers will be reported on a per parcel basis unless (other shapefile polygons are provided).

### Background

The IRWD desires to determine accurate irrigated area and certain on-the-ground conditions



of all parcels within the IRWD service area. The intention of the Project is to use Eagle's 2016 existing 3" very high resolution 4 band aerial data. Because the imagery is already available the remote sensing analysis (calculation of irrigated area and other layers, pools etc.. per parcel) can begin immediately to calculate, to 95% accuracy on individual parcels designated by IRWD. The project needs to be completed on or before April 15<sup>th</sup> , 2017.

The following surface characteristics include (final layers TBD):

- 1) Impervious surfaces (concrete, roofs, asphalt, other pavement types)
- 2) Swimming pools
- 3) Irrigable (covering dry lawns and other areas TBD)
- 4) Irrigated landscape Turf
- 5) Irrigated landscape Non-Turf
- 6) Native vegetation
- 7) Horse Corals & Arenas in the over 15,000 S.F. SFH parcels (TBD)
- 8) Artificial turf

This effort is part of establishing procedures that will be made available to IRWD in its effort to understand water usage and other conservation goals. For example once project is completed you will be able to identify the customers with the most turf to target for turf removal programs. Also this will give IRWD the ability to see lot-level shapefiles of each of the eight categories above. Eagle will use a GIS-based remote sensing analysis approach combined with color infra-red high resolution imagery using 3" pixel and Eagle's proprietary techniques with software and expertise to provide the analytical data requested by IRWD. The goal of the Project is to achieve an accuracy level of 95% (at the parcel level) or higher which will provide significant savings over traditional ways of determining surface conditions within the designated parcels.



## Scope of Work

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Four band Imagery (Red, Green, Blue, and Color Infrared) imagery will be used to identify the pervious & impervious land cover. All four bands will be analyzed accurately based on the seven recognition elements of air photo interpretation, pixel values (tone or color), shape, size, pattern, shadow, texture, association, spectral signature and site. The level of accuracy can be achieved using the new 2016 aerial ortho high resolution digital imagery with all four bands (R,G,B & CIR). By using the existing four band aerial imagery significant money and time will be saved and be able to meet the project deadline of 4/15/2017 assuming the notice to proceed & materials needed are received by 12/15/2016.

*Materials:* This is the data to be supplied to Eagle from IRWD:

- ESRI Parcel Data Shapefiles for all parcels within the IRWD Service Area AOI (shapefile provided).
- Corresponding addresses/parcel #'s to be used to connect to the parcel. This will tie the customer to their parcel. This will not always apply to accounts outside of SFR accounts. Commercial, Multi-family and Dedicated irrigation accounts where there is not a one to one (parcel to customer) relationship will need further information from IRWD.
- Any other data/info determined to be important for the project will need to be supplied if available.

## Deliverables

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The deliverables that IRWD will receive are as follows:

- Parcel polygons of geographic locations are identified for the Parcels. These polygons will be 100% compatible with ESRI software. When imported into the ESRI software, each of the Target Parcels will be identified by a parcel polygon.

*1) Impervious surfaces (concrete, roofs, asphalt, other pavement types)*

*2) Swimming pools*

*3) Irrigable (covering dry lawns and other areas TBD)*

*4) Irrigated landscape Turf*

*5) Irrigated landscape Non-Turf*

*6) Native vegetation*

*7) Horse Corals & Arenas in the over 15,000 S.F. SFH parcels (TBD)*

*8) Artificial turf*

This will cost-effectively and accurately distinguish types of irrigated vegetation and the impervious surfaces. These will be color-identified with textual attribute data which will include square footage information for the individual surfaces identified (vegetation; turf & other, pools, and impervious surfaces etc..).

- A corresponding Excel data file will be included matching parcel number to geographic polygon parcel with the square footage of vegetation (turf, trees, bushes & flower beds) and impervious surfaces etc...for each layer above. The attributes in the above parcel polygon will be included in the Excel spreadsheet.

## Meetings/Coordination

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Eagle Aerial will coordinate with IRWD to obtain necessary data (such as parcels, addresses etc...) on an as-needed basis to maximize the accuracy of the project.

Meetings will be held as necessary via phone or GoToMeetings to maximize the results of the project.

## Scope of Project

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The Project consists of approx. 77,896 parcels within the IRWD service area will be provided to Eagle by IRWD. The price for the services provided by Eagle under this Scope of Work are limited to those specified herein. Any further services, which are not specifically described herein, but are subsequently identified, shall be negotiated between Eagle and IRWD for additional time and compensation.

The price includes the entire project to be completed at one time. If fewer areas or portions of service areas change then the price may change significantly due to project set up and other factors.

### **Included services to the IRWD Irrigated landscape project:**

#1) **Add parkway square footage in areas outside of parcels (that customers water):** Create additional layer for addition of parkways (areas outside of parcel adjacent to parcel) for the entire service area but have the ability to turn it on or off based on the area of the District. Some parkway areas the customer pays for the watering of and the HOA in other areas pay. Therefore IRWD wants to have the option to include or exclude these parkway areas into the customer's water budget and be able to toggle between the two simply. In tabular form (excel spreadsheet) having an extra column with the irrigated parkway sq. footage is desired (details to be finalized).

#2) **Parcel Files that represent roads with areas of median strips summarized:** This involves creating a separate layer for medians in the middle of roadways. This is a separate layer from the parkway layer above because it typically is not watered by home owners and typically watered by the City or HOA.

#3) **Slope calculation in steep landscapes where it makes a difference:** Exact slope where this comes in to the process is TBD. NOTE: Eagle has elevation data for all developed portions of the IRWD service area, however some of the rural undeveloped areas are not available, which shouldn't affect the project.

#4) **Remove parcel slivers (fragmented parcels) throughout the IRWD service area:** It is unknown by IRWD how prevalent this is throughout the service area. The prior project done in the OPA service area had several of these. The plan will be run all of the parcels through a filter that will show any parcels based on a certain polygon shape (exact shape to eliminate is to TBD). This will tell us how many are in the IRWD service area, it will then be determined if this is an issue that needs to be dealt with and if so whether to join them with neighboring parcels that share a parcel number or other method (TBD). No adjustment of parcel layer will be undertaken.

### **Optional Services that IRWD requested are listed as follows (pricing in next section):**

**Three one year annual updates to find and re-calculate changed landscapes:** Taking the 4 band high res. new current imagery and comparing it with the prior years 4 band imagery. By using specialized software and change detection algorithm the changed landscapes can be determined (based on a certain square footage tolerance). Then re-mapping those parcels for the changed irrigated landscape square footage to keep the data updated and relevant. Some parameters still TBD. All options that we're included in the initial project will be included in updates.

## Project Timeline and Key Tasks

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*Tentative Schedule is as follows -*

Estimated Time Frame: 90-120 days from a December 15<sup>th</sup>, 2016 start date for the project from receipt of all materials/data needed to begin. IRWD will provide Eagle with a Notice to Proceed in order to authorize the commencement of the project.

Steps:

- A) Once all materials are received and notice to proceed is given, the project will commence.
- B) Kick off meeting to discuss and get clear with all portions of the project and other details needed to assure a successful project.
- C) A small pilot area of study will be completed. The results will be given to IRWD for review and feedback to make any changes as necessary. IRWD will have one 3 working days to provide the feedback to Eagle. Any time beyond the one week will result in possible delay of the project. A GoToMeeting will be set to discuss results and make any changes needed before embarking on whole project.
- D) Project will be divided into phases TBD and dates assigned with milestones to the finish point on or before April 15<sup>th</sup>, 2017. A much more detailed time frame will be provided once options are chosen and the kickoff meeting is completed a much more detailed schedule will be provided.

**Budget**

Eagle Aerial will perform the Project for a cost of project covering all parcels in the district approx. 77,896 within service area (per parcel file provided by IRWD) will be \$120,813.00. This cost will not be exceeded without written authorization from IRWD. Once authorization to proceed and materials from IRWD have been received Eagle will commence on the project. The entire project will be invoiced once the project is completed and payable within 30 days.

**Project Cost:**

**COSTS:**

The project costs includes everything\* in the above proposal including the near infra-red Imagery band, meetings and all other labor and materials for the project (excluding IRWD Supplied data defined above)

\$120,813.00

\*Excluding optional annual updates below.

**OPTION(S) (details of option above):**

Three one year annual updates to find and re-calculate changed landscapes

\$38,486.00\*\*

\*\*NOTE: This is the annual cost. Updates include all options chosen in base year.

1<sup>st</sup> payment 25% due with delivery of aerial

\$30,203.25

2<sup>nd</sup> payment 35% due with (mid way through project)

\$42,284.55

Final payment 40% (once project completed)

\$48,325.20

**Total Project Cost**

\$120,813.00