

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

**December 15, 2014**

**PLEDGE OF ALLEGIANCE**

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

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

**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: Mrs. Joan Irvine Smith relative to the Dyer Road Wellfield.

2.    **ITEMS RECEIVED TOO LATE TO BE AGENDIZED**

Recommendation: Determine that the need to discuss and/or take immediate action on item(s) introduced come to the attention of the District subsequent to the agenda being posted.

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**PRESENTATION**

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3.    **NATIONAL PURCHASING INSTITUTE ACHIEVEMENT OF EXCELLENCE IN PROCUREMENT AWARD**

Staff will present the Achievement of Excellence in Procurement Award given to IRWD by the National Purchasing Institute for the 14<sup>th</sup> consecutive Year.

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**CONSENT CALENDAR**

**Resolution No. 2014-54**

**Items 4-11**

4.    **MINUTES OF REGULAR BOARD MEETING**

Recommendation: That the minutes of the November 24, 2014 Regular Board meeting be approved as presented.

**CONSENT CALENDAR - Continued**

**Resolution No. 2014-54**

**Items 4-11**

5. 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.

6. 2014 GENERAL DISTRICT ELECTION RESULTS

Recommendation: That the Board adopt a resolution declaring results of November 4, 2014 General District Election.

7. NOVEMBER 2014 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for November 2014, and Disclosure Report of reimbursements to board members and staff; approve the November 2014 summary of payroll ach payments in the total amount of \$1,630,774 and approve the November 2014 accounts payable disbursement summary of warrants 353243 through 354104, workers' compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$19,718,589.

8. PROPOSED 2015 INVESTMENT POLICY

Recommendation: That the Board approve the proposed 2015 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.

Reso No. 2014-

9. FY 2013-14 COMPREHENSIVE ANNUAL FINANCIAL REPORT

Recommendation: Receive and file.

10. TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES SUPPLEMENTAL REIMBURSEMENT AGREEMENT

Recommendation: That the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with Irvine Community Development Company for the Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities, project 30366 (1015).

<b>CONSENT CALENDAR - Continued</b>	<b>Resolution No. 2014-54</b>	<b>Items 4-11</b>
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11. UTILITY BILLING SOFTWARE IMPLEMENTATION VARIANCE APPROVAL

Recommendation: That the Board authorize the General Manager to execute Variance No. 16, in the amount of \$4,400, Variance No. 17 in the amount of \$3,300, Variance No. 18 in the amount of \$4,125, and Variance No. 19 in the amount of \$6,600 with Infosys for additional implementation services for the Utility Billing Software Implementation, projects 11615 (3236) and 21615 (3237).

**ACTION CALENDAR**

12. 2014 WATER-ENERGY GRANT PROGRAM APPLICATION

Recommendation: That the Board adopt a resolution authorizing staff to file an application with the California Department of Water Resources for 2014 Water-Energy Grant program funding and authorizing the General Manager to execute a related agreement with the state of California.

Reso No. 2014-

13. CONSULTANT SELECTION FOR WATER SUPPLY RELIABILITY STUDY AND MODEL DEVELOPMENT

Recommendation: That the Board authorize the addition of project 11808 (6013) to the FY 2014-15 Capital Budget in the amount of \$496,900, which includes \$50,000 for staff time and \$5,000 for legal assistance; and authorize the General Manager to execute a Professional Services Agreement with HDR Engineering, Inc. in the amount of \$376,800 to conduct the water reliability study, to prepare a demand adjustment tool and to prepare a system and supply reliability model.

14. ENTERPRISE ASSET MANAGEMENT SYSTEM PROJECT SUPPORT

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$310,200 with GHD for project management support services for the Enterprise Asset Management System Project.

15. WELLS ET-1 AND ET-2 REHABILITATION CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase in the amount of \$52,500, from \$877,800 to \$930,300, for project 30402 (4328), and authorize the General Manager to execute a construction contract with General Pump Company, Inc. in the amount of \$679,525 for the Wells ET-1 and ET-2 Rehabilitation, project 30402 (4328).

16. ANNUAL BOARD OF DIRECTORS' FEES

Recommendation: That the Board accept the five (5%) percent scheduled compensation increase for calendar year 2015.

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**ACTION CALENDAR - Continued**

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17. ELECTION OF OFFICERS FOR 2015

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

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**OTHER BUSINESS**

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Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, 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.

18. A. General Manager's Report

B. Directors' Comments

C. CLOSED SESSION: CONFERENCE WITH LEGAL COUNSEL RELATIVE TO EXISTING LITIGATION - Government Code Section 54956.9(d)(1) – Mid-Century Insurance v. IRWD, Patrick Madden Morgan, and The Paper Company.

D. Open Session

E. Adjourn.

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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.

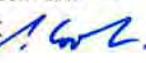
The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the 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 15, 2014

Prepared and

Submitted by: L. Bonkowski

Approved by: P. Cook



CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the November 24, 2014 Regular Board Meeting minutes for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE NOVEMBER 24, 2014 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes of November 24, 2014 Regular Board Meeting

## EXHIBIT "A"

### MINUTES OF REGULAR MEETING – NOVEMBER 24, 2014

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President LaMar on November 24, 2014 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

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

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Engineering and Water Quality Burton, Executive Director of Finance Clary, Executive Director of Operations Shields, Executive Director of Water Policy Weghorst, Director of Treasury and Risk Management Jacobson, Director of Public Affairs Beeman, Director of Water Resources Sanchez, Assistant Director of Water Operations Roberts, Assistant Director of Operations Lee, Legal Counsel Arneson, Secretary Bonkowski, Ms. Christine Compton, Mr. Mike Hoolihan, Mr. Jim Reed, Mr. Mark Tetterer, Ms. Gretchen Ronin, Mr. John Dayer, Mr. Rich Mori and other members of the public and staff.

#### WRITTEN COMMUNICATION:

Mrs. Joan Irvine Smith's assistant asked that the status of the Dyer Road Wellfield be included in the minutes as follows: Currently wells 1, 2, 7, C-8, C-9, 10, 11, 14, 15, and 17 will operate in accordance with the District's annual pumping plan and that wells 3, 4, 5, 6, 12, 13, 16 and 18 will be off.

ORAL COMMUNICATION – None.

#### CONSENT CALENDAR

On MOTION by Matheis, seconded and unanimously carried, CONSENT CALENDAR ITEMS 3 THROUGH 11 WERE APPROVED AS FOLLOWS:

3. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the November 10, 2014 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, Peer Swan and John Withers as described.

CONSENT CALENDAR (CONTINUED)

5. RESOLUTION OF COMMENDATION FOR LARRY AGRAN

Recommendation: That the Board adopt the following resolution by title commending Councilman Larry Agran for his dedicated service to the Irvine community.

RESOLUTION NO. 2014-53

RESOLUTION OF THE BOARD OF DIRECTORS  
OF IRVINE RANCH WATER DISTRICT COMMENDING  
MR. LARRY AGRAN FOR 28 YEARS OF DEDICATED  
SERVICE TO THE CITY OF IRVINE

6. OCTOBER 2014 TREASURY REPORTS

Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for October 2014, and Disclosure Report of Reimbursements to Board members and staff; approve the October 2014 Summary of Payroll ACH payments in the total amount of \$2,176,141 and approve the October 2014 accounts payable disbursement summary of warrants 352357 through 353242, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$38,448,453.

7. UPCOMING PROJECTS STATUS REPORT

Recommendation: Receive and file.

8. DISCOVERY SCIENCE CENTER AGREEMENT VARIANCE NO. 1

Recommendation: That the Board authorize the General Manager to execute a variance in the amount of \$299,370 to the Professional Services Agreement with the Discovery Science Center to provide water education program services for Fiscal Years 2014-15 and 2015-16.

9. SYPHON RESERVOIR INTERIM FACILITIES AND PIPELINE IMPROVEMENTS  
FINAL ACCEPTANCE

Recommendation: That the Board accept construction of the Syphon Reservoir Interim Facilities and Pipeline Improvements, project 30374 (3729); 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.

CONSENT CALENDAR (CONTINUED)

10. BAKER WATER TREATMENT PLANT PROGRAMMING SUPPORT CONSULTANT SELECTION

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement in the amount of \$168,000 with Arcadis for programming support for the Baker Water Treatment Plant, project 11747 (5027).

11. MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION CONTRACT CHANGE ORDER

Recommendation: That the Board approve Contract Change Order No. 118 in the credit amount of <\$49,147.28> for additional system testing and deletion of work items with J. R. Filanc Construction Co. for the Michelson Water Recycling Plant Phase 2 Expansion, project 30214 (1706).

ACTION CALENDAR

LONG-TERM DISABILITY, LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE FOR CALENDAR YEAR 2015

General Manager Cook reported that staff has received renewal rates from Principal Financial for Long-Term Disability (LTD), Group Term Life Insurance (GTL), and Dependent Life Insurance coverage. Mr. Cook said that Principal Financial has proposed an increase of 20.5% for IRWD's GTL coverage, increasing the cost per \$1000 of coverage from \$0.146 to \$0.176. Principal Financial has also proposed an increase of 17% to IRWD's LTD coverage, increasing the cost per \$100 of covered wages from \$0.47 to \$0.55. He said that staff requested the District's broker, Mercer, to market this coverage to other providers to determine if more competitive rates were available and that Hartford Insurance provided the most competitive proposal. Hartford has proposed a rate of \$0.34 cost per \$100 of covered wages for LTD and \$0.13 per \$1000 of coverage for GTL. These rates are lower than what the District was paying in 2007 when coverage was last provided by Hartford. While the proposed rate for Dependent Life is higher than the District's current rate, the combined rate for all coverages results in significant savings to the District overall. Hartford is also offering a two-year rate guarantee. Following discussion, Director Swan said that he would like to amend the motion to direct staff to communicate with the District's retirees that the contract with Hartford includes additional benefits that will apply to the coverage until termination of the contract. On MOTION by Swan, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO CANCEL THE CURRENT CONTRACT WITH PRINCIPAL FINANCIAL AND ENTER INTO A TWO-YEAR CONTRACT WITH HARTFORD FOR LONG-TERM DISABILITY, GROUP TERM LIFE, AND DEPENDENT LIFE INSURANCE COVERAGE, AND STAFF WAS DIRECTED TO CONTACT THE DISTRICT'S RETIREES OUTLINING THE ADDITIONAL BENEFITS WHICH WILL BE COVERED UNTIL THE TERMINATION OF THE TWO-YEAR CONTRACT.**

### THREE-YEAR JANITORIAL SERVICES CONTRACT

General Manager Cook reported that IRWD's Sand Canyon Headquarters (Sites 1-2), Operations Center (Sites 3-13), Los Alisos Water Recycling Plant (Site 14), and 11 satellite facilities (Sites 15-25) totaling 115,000 square feet require ongoing janitorial services. On March 1, 2014, a three-year contract for these services was awarded to Starbrite Building Maintenance, Inc. Subsequent to the award, the contractor consistently fell short of the contract performance standards. Staff initiated a 90-day probation and performance review period effective July 1, 2014. During the probation and performance review period, staff conducted frequent inspections and worked closely with the contractor to ensure standards were met; however, in spite of this effort, the contractor was unable to perform satisfactorily, and new proposals for janitorial services were solicited.

A Request for Proposal was issued on October 23, 2014 to eight custodial contractors. Five contractors attended the October 28, 2014 job walk. Of the job walk participants, three submitted proposals: American Building Maintenance, Sunset Property Services, Inc., and DMS Facility Services, LLC. The lowest responsive bidder was DMS Facility Services, LLC. with a bid of \$590,784. On MOTION by Withers, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A THREE-YEAR JANITORIAL SERVICES CONTRACT WITH DMS FACILITY SERVICES, LLC. IN THE TOTAL AMOUNT OF \$590,784.**

### 2015 SEWER COLLECTION SYSTEM MASTER PLAN CONSULTANT SELECTION

Executive Director of Engineering and Water Quality Burton reported that the 2015 Sewer Collection System Master Plan (SCSMP) project will update the 2006 SCSMP by performing a detailed flow monitoring program, calibrating sewer flow projections, developing a hydraulic model, and analyzing reliability and redundancy for critical sewer collection facilities.

Mr. Burton said that seven consulting firms were requested to submit proposals for the 2015 SCSMP. RMC Water and Environment, Dudek, AKM Consulting Engineers, and a Stantec/RBF team submitted proposals. The four teams were evaluated based on their team experience, technical approach, and responsiveness to IRWD concerns during the interview. He said that although all the teams had their specific strengths, staff recommends the project be awarded to AKM due to their technical approach and project understanding; local, cohesive team experience; determining the required level of effort for the amount of staff hours required, and overall value. He further said that staff negotiated a final scope and fee of \$891,784.

Director Reinhart reported that this item was reviewed by the Engineering and Operations Committee on November 18, 2014. Director Swan relayed a number of his concerns including the current flows during the drought versus a robust economy; new developments being built by the Irvine company; the trunk sewers along the San Diego Creek Intereceptor and ramifications if a pipe break occurred; and adding bypass capabilities. There being no further comments, on MOTION by Reinhart, seconded and unanimously carried, **THE BOARD AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH AKM CONSULTING ENGINEERS IN THE AMOUNT OF \$891,784 TO COMPLETE THE 2015 SEWER COLLECTION SYSTEM MASTER PLAN, PROJECT 21748 (5142).**

## IRVINE LAKE PIPELINE NORTH CONVERSION PROJECT CONSULTANT SELECTIONS

General Manager Cook reported that staff recently completed the Irvine Lake Pipeline (ILP) North Conversion Study which recommends the establishment of a new hydraulic zone, Zone C+, to feed existing and planned future areas with recycled water.

Using a PowerPoint presentation, Principle Engineer Hoolihan reported on the project's purpose/benefits, project costs, and schedule. Mr. Hoolihan said that the primary purpose and benefits included: 1) extending recycled water into upper Orchard Hills and Santiago Hills; 2) converting existing irrigation demands served by untreated water; and 3) converting existing irrigation demands served by potable water.

Staff received proposals for design of the ILP North Conversion Reservoir Project from Black & Veatch, Carollo Engineers, HDR, and Kleinfelder/Simon Wong Engineering. Kleinfelder/Simon Wong Engineering's proposal presented the most relevant overall reservoir experience as well as unique ideas for locating the new reservoir on the existing site. Staff also received proposals for design of the ILP North Conversion Pipelines Project from Dudek, Hunsaker & Associates, Tetra Tech, VA Consulting, and URS Corporation (URS). URS's proposal presented an excellent understanding of the project and included extensive investigations of available pipe alignments, including initial public utility searches, a clear understanding of the traffic control requirements, which will be performed in-house, and an understanding of the phasing requirements and physical constraints of the work area.

Director Reinhart reported that the Engineering and Operations Committee reviewed this item on November 18, 2014 where he discussed his concerns with the project. Following discussion, on MOTION by Reinhart, seconded and unanimously carried, **THE BOARD APPROVED A BUDGET DECREASE IN THE AMOUNT OF <\$1,493,600> TO THE FY 2014-15 CAPITAL BUDGET FOR PROJECT 30496 (5407); AUTHORIZED THE ADDITION OF PROJECT 30513 (5823), IN THE AMOUNT OF \$7,494,600, TO THE FY 2014-15 CAPITAL BUDGET; APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$1,037,000 FOR PROJECT 30496 (5407); APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$905,800 FOR PROJECT 30513 (5823); AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH KLEINFELDER/SIMON WONG ENGINEERING, IN THE AMOUNT OF \$723,654, FOR ENGINEERING SERVICES FOR THE IRVINE LAKE PIPELINE NORTH CONVERSION RESERVOIR, PROJECT 30496 (5407); AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH URS CORPORATION, IN THE AMOUNT OF \$659,865, FOR ENGINEERING SERVICES FOR THE ILP NORTH CONVERSION PIPELINES, PROJECT 30513 (5823).**

## RATTLESNAKE RESERVOIR CHLORINE GAS SYSTEM REMOVAL CONSTRUCTION AWARD

General Manager Cook reported that non-potable water is disinfected at the Rattlesnake Chlorination Facility to control biological growth in the recycled water distribution system and to control odors downstream of the Zone A North tank. Mr. Cook said that the Rattlesnake Chlorination Facility currently uses chlorine gas which is labor intensive and requires additional safety measures when compared to the use of liquid sodium hypochlorite. The Rattlesnake Reservoir Chlorine Gas

Removal Project will replace the chlorine gas system and related appurtenances with sodium hypochlorite storage and feed facilities.

Executive Director of Engineering and Water Quality Burton reported that the project was advertised October 20, 2014 to a select list of nine contractors including ARB, Inc., Clarke Contracting, Gateway Pacific Contractors, Olsson Construction, Pacific Hydrotech, Pascal & Ludwig Constructors, Schuler Engineering, SS Mechanical, and W.M. Lyles. Mr. Burton said that the bid opening was held November 18, 2014, with bids received from ARB, Inc., Pacific Hydrotech, Schuler Engineering, and SS Mechanical with Schuler Engineering the apparent low bidder with a bid amount of \$1,725,900. He said that staff reviewed Schuler Engineering's bid and has determined that it is responsive. He further said that the engineer's estimate, prepared by Carollo Engineers, was \$1,852,000. The low bid was about 4 percent less than the engineer's estimate.

On MOTION by Withers, seconded and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE IN THE AMOUNT OF \$724,500, FROM \$1,706,400 TO \$2,430,900, FOR PROJECT 30435 (4959), AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH SCHULER ENGINEERING CORPORATION IN THE AMOUNT OF \$1,725,900 FOR THE RATTLESNAKE RESERVOIR CHLORINE GAS SYSTEM REMOVAL, PROJECT 30435 (4959).

#### OTHER BUSINESS

#### GENERAL MANAGER'S REPORT

General Manager Cook reported on his meeting today with OCWD's Mike Markus and John Kennedy, and Orange County Farm Bureau's A.G. Kawamura relative to agricultural replenishment assessments.

Mr. Cook reported on a letter received today from the City of San Clemente noting an interest of purchasing three cfs of water from the Baker Treatment Plant which he said he will be forwarding to the participating agencies.

He further noted his upcoming speaking engagements with ACC-OC relative to the drought and at UCI with representatives from China where discussions will be held on regional transfers.

#### DIRECTORS' COMMENTS

Director Matheis reported on her attendance at an Irvine City Council meeting accepting an Irvine Global Village Festival Sponsor Recognition award; an ACC-OC election results analysis with Mr. Dan Walters; a CORO water conference with Executive Director of Operations Shields; a MWDOC retirement event for Director Wayne Clark, an OCWD retirement event for Director Kathryn Barr; an Exchange Club of Irvine event; and an Urban Water Institute meeting.

## DIRECTORS' COMMENTS (CONTINUED)

Director Withers said that he was very impressed with the comment letter sent to Mr. Markus of the Orange County Water District relative to Clean Energy Capital's financial analysis of the proposed Huntington Beach Water Desalination Project, and complimented staff and the Directors on their efforts.

Director Reinhart reported on his attendance at the MWDOC Board meeting.

Director Swan reported on his attendance at OCWD meetings; a WACO monthly meeting; a WACO planning meeting; retirement events for Directors Clark and Kathryn Barr; and a two-day ACWA Board meeting in Sacramento.

Director LaMar reported on his attendance at a CORO conference; a retirement event for Director Clark; and a Nature Reserve of Orange County meeting where one of their priority challenges is to assemble a Fire Management Plan. In that regard, he said NROC hired Ms. Carol Rose as a consultant to prepare guidelines for each property owner. Mr. LaMar also said he will be discussing this topic tomorrow with the new Orange County Fire Chief.

## CLOSED SESSION

President LaMar said that the following Closed Session will be held:

CLOSED SESSION CONFERENCE WITH LABOR NEGOTIATOR pursuant to (Government Code Section 54957

Agency Designated Representative: Steven Lamar

Unrepresented Employee: Paul Cook

## OPEN SESSION

Following the Closed Session, the meeting was reconvened with Directors Swan, Reinhart, LaMar, Withers, and Matheis present. By unanimous vote (5-0 ayes), EFFECTIVE OCTOBER 1, 2014, THE GENERAL MANAGER WAS GRANTED A 6.00% INCREASE OF HIS CURRENT BASE SALARY WITH THE DISCRETION TO APPLY THIS INCREASE TO HIS BASE SALARY AND/OR PERFORMANCE AWARD.

## ADJOURNMENT

There being no further business, President LaMar adjourned the meeting in memory of Mr. Ted Martin, President of El Toro Water District.

APPROVED and SIGNED this 15<sup>th</sup> day of December, 2014.

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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 15, 2014  
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

12/2-5/14 ACWA Fall Conference, San Diego, CA  
12/10-12/14 CRWUA Annual Conference

Mary Aileen Matheis

12/1-5/14 ACWA Fall Conference, San Diego, CA  
12/9-12/14 CRWUA Annual Conference

Douglas Reinhart

11/20/14 Exchange Club of Irvine Annual Breakfast Meeting  
12/2-4/14 ACWA Fall Conference, San Diego, CA  
12/10-12/14 CRWUA Annual Conference

Peer Swan

12/1-5/14 ACWA Fall Conference, San Diego, CA  
12/10-12/14 CRWUA Annual Conference  
12/16/14 Waco Planning Committee Meeting

John Withers

12/2-4/14 ACWA Fall Conference, San Diego, CA

RECOMMENDATION:

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

LIST OF EXHIBITS:

None

December 15, 2014  
Prepared and  
Submitted by: L. Bonkowski   
Approved by: P. Cook 

CONSENT CALENDAR

2014 GENERAL DISTRICT ELECTION RESULTS

SUMMARY:

At the November 4, 2014 General District Election, Steven E. LaMar, Douglas Reinhart and Peer A. Swan were reelected to four year terms of office ending November 2018. The election results have been certified by the County Registrar of Voters and a resolution is submitted for the Board's action, declaring the election results.

COMMITTEE STATUS:

Not applicable

ENVIRONMENTAL COMPLIANCE:

Not applicable

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014-

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE  
RANCH WATER DISTRICT DECLARING RESULTS OF  
NOVEMBER 4, 2014 GENERAL DISTRICT ELECTION

LIST OF EXHIBITS:

Exhibit "A" – Resolution  
Exhibit "B" – Certified Election Results

EXHIBIT "A"

RESOLUTION NO. 2014-

RESOLUTION OF THE BOARD OF DIRECTORS OF IRVINE  
RANCH WATER DISTRICT DECLARING RESULTS OF  
NOVEMBER 4, 2014 GENERAL DISTRICT ELECTION

WHEREAS, on November 4, 2014, the Irvine Ranch Water District held its 2014 General District Election in accordance with the procedures set forth in Section 35175 et seq. of the Water Code for the purpose of electing three persons to three offices of Director of the Irvine Ranch Water District;

WHEREAS, the Register of Voters has delivered a Certified Statement of the Votes Cast to the Secretary of this District based upon the canvass of all votes cast at the General District Election held November 4, 2014.

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

Section 1. That the Registrar of Voters Statement of the vote at the General District Election held November 4, 2014 showing that Steven E. LaMar, Douglas Reinhart and Peer A. Swan have been elected Directors be received and filed.

Section 2. That the terms of office of each newly elected Director shall extend until the November 2018 General District Election and the qualification of their successors.

ADOPTED, SIGNED and APPROVED this 15th day of December, 2014.

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

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

APPROVED AS TO FORM:  
BOWIE, ARNESON, WILES & GIANNONE  
Legal Counsel - IRWD

By: \_\_\_\_\_

**EXHIBIT "B"**

**CERTIFIED STATEMENT OF THE VOTES CAST**

at the

**GENERAL ELECTION**

November 4, 2014

in the

County of Orange, State of California

FILED \_\_\_\_\_, 2014

DEBRA BOWEN, SECRETARY OF STATE

BY \_\_\_\_\_ DEPUTY

State of California)

) ss

County of Orange)

*I, Neal Kelley, Registrar of Voters of Orange County, do hereby certify that the within is a true and correct statement of the votes cast in this county at the General Election, as determined by the canvass of the returns of said election.*

*I further certify the results of the 1 percent manual tally contained no discrepancies between the machine count and the manual tally.*

*WITNESS my hand and Official Seal*

THIS 18<sup>th</sup> DAY OF Nov., 2014

 \_\_\_\_\_, REGISTRAR OF VOTERS





# *Certificate of Election*

State of California, County of Orange

This is to certify that **Doug Reinhart** was elected to the office of **Director, Irvine Ranch Water District**, at the election held **November 4, 2014**.

The official returns of said election and statement of votes cast are on file in the office of the Board of Supervisors, County of Orange.



Witness my hand and official seal this  
**18th** day of **November, 2014**

  
Neal Keller  
Registrar of Voters

# *Certificate of Election*

State of California, County of Orange

This is to certify that *Steven E. Lamar* was elected to the office of *Director, Irvine Ranch Water District*, at the election held *November 4, 2014*.

The official returns of said election and statement of votes cast are on file in the office of the Board of Supervisors, County of Orange.



Witness my hand and official seal this

*18th* day of *November*, *2014*

  
Neal Kelley  
Registrar of Voters

# *Certificate of Election*

State of California, County of Orange

This is to certify that **Peer A. Swan** was elected to the office of **Director, Irvine Ranch Water District**, at the election held **November 4, 2014**.

The official returns of said election and statement of votes cast are on file in the office of the Board of Supervisors, County of Orange.



Witness my hand and official seal this

**18th** day of **November, 2014**

  
Neal Kelley  
Registrar of Voters

December 15, 2014 

Prepared by: Jennifer Davis/Tanja Fournier 

Submitted by: Robert Jacobson/Cheryl Clary 

Approved by: Paul Cook 

## CONSENT CALENDAR

### NOVEMBER 2014 TREASURY REPORTS

#### SUMMARY:

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

- A. The Investment Summary Report for November 2014. This Investment Summary Report is in conformity with the 2014 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, 2014, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$1,630,774, as outlined in Exhibit "C".
- D. The November 30, 2014 Disbursement Summary of warrants 353243 through 354104, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$19,718,589, as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for November 2014, 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, 2014, the book value of the investment portfolio was \$288,354,091, with a 0.49% rate of return and a market value of \$288,393,457. Based on the District's September 30, 2014 quarterly real estate investment rate of return of 12.18%, the District's weighted average return for the fixed income and real estate investments was 2.86%.

As of November 30, 2014, 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 \$564,432.

Payroll ACH payments totaled \$1,630,774, and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for November totaled \$19,718,589.

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 2014, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE NOVEMBER 2014 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,630,774 AND APPROVE THE NOVEMBER 2014 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 353243 THROUGH 354104, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$19,718,589.

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

11/30/14

SEPT/MT * Call Schedule	Initial Call	Maturity Date	Rating	INVESTMENT TYPE	INSTITUTION / ISSUER	PAR Amount	COUPON DISCOUNT	YIELD	YTFC	ORIGINAL COST	CARRY VALUE	MARKET VALUE 11/30/2014 (3)	UNREALIZED GAIN/(LOSS)(2)	
11/14/14		12/01/14		LAIF	State of California Tsy.	\$50,000,000		0.240%		\$50,000,000.00	\$50,000,000.00	50,009,064.20	9,064.20	
11/14/14		12/15/14		LAIF BABS	State of California Tsy.	2,248,941		0.240%		\$2,248,941.02	\$2,248,941.02	2,249,348.72	407.70	
08/13/14	N/A	12/11/14	NR	FHLB - Discount Note	Fed Home Loan Bank Discount Note	5,000,000	0.065%	0.066%		4,998,916.67	4,999,909.72	4,999,950.00	40.28	
08/13/14	N/A	01/30/15	NR	FHLB - Discount Note	Fed Home Loan Bank Discount Note	10,000,000	0.090%	0.091%		9,995,750.00	9,998,500.00	9,999,300.00	800.00	
08/13/14	N/A	05/20/15	NR	FNMA - Discount Note	Fed Natl Mortgage Discount Note	10,000,000	0.130%	0.132%		9,989,888.89	9,993,861.11	9,996,500.00	2,638.89	
11/19/14	N/A	05/20/15	NR	FHLB - Discount Note	Fed Home Loan Bank Discount Note	5,000,000	0.101%	0.102%		4,997,446.95	4,997,615.28	4,998,250.00	634.72	
08/13/14	N/A	06/09/15	NR	FHLMC - Discount Note	Fed Home Loan Mortgage Corp Discount Note	10,000,000	0.150%	0.152%		9,987,500.00	9,992,083.33	9,995,800.00	3,716.67	
08/13/14	N/A	07/29/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	15,000,000	0.125%	0.182%		14,991,750.00	14,994,342.86	14,993,550.00	(792.86)	
03/04/14	N/A	08/28/15	Aaa/AA+/NR	FHLMC - Note	Fed Home Loan Mortgage Corp	2,000,000	0.500%	0.225%		2,008,140.00	2,004,054.98	2,005,340.00	1,285.02	
03/04/14	N/A	08/28/15	Aaa/AA+/NR	FHLB - Note	Fed Home Loan Bank	8,000,000	0.375%	0.225%		8,017,720.00	8,008,827.31	8,012,080.00	3,252.69	
05/28/14	N/A	09/10/15	Aaa/AA+/AAA	FHLMC - Note	Fed Home Loan Mortgage Corp	5,000,000	1.750%	0.165%		5,101,550.00	5,061,146.06	5,061,050.00	(96.06)	
10/09/14	One Time	03/26/15	10/20/15	Aaa/AA+/NR	FNMA - Note	5,000,000	0.270%	0.239%	0.201%	5,001,600.00	5,001,374.47	5,000,750.00	(624.47)	
11/19/14	N/A	N/A	11/18/15	Aaa/NA/NR	FHLB - Note	5,000,000	0.125%	0.193%		4,996,635.00	4,996,745.93	4,994,000.00	(2,745.93)	
10/09/14	N/A	N/A	12/01/15	Aaa/AA+/NR	FNMA - Note	5,000,000	0.270%	0.233%	0.233%	5,002,100.00	5,001,833.73	5,000,300.00	(1,533.73)	
10/29/14	N/A	N/A	12/18/15	Aaa/AA+/NR	FHLB - Note	5,000,000	0.300%	0.200%	0.200%	5,005,670.00	5,005,219.13	5,003,350.00	(1,869.13)	
05/27/14	N/A	N/A	12/21/15	Aaa/AA+/AAA	FNMA - Note	5,000,000	0.375%	0.241%		5,010,450.00	5,007,021.38	5,006,500.00	(521.38)	
01/15/13	N/A	07/15/13	01/15/16	NA/AA+/AAA	FHLB - Note	5,000,000	0.375%	0.390%		4,997,750.00	4,999,001.37	5,002,900.00	3,898.63	
03/14/13	Continuous	09/07/13	03/07/16	Aaa/AA+/NR	FHLB - Note	740,741	0.470%	0.490%	0.730%	734,740.74	738,195.29	740,592.39	2,397.31	
03/14/14	Continuous	06/10/14	03/10/16	Aaa/AA+/AAA	FFCB - Note	5,000,000	0.350%	0.413%	0.874%	4,993,750.00	4,996,002.41	4,996,200.00	197.59	
04/12/13	Continuous	07/12/13	04/12/16	Aaa/AA+/AAA	FFCB - Note	5,000,000	0.410%	0.447%	0.851%	4,994,500.00	4,997,500.91	4,994,400.00	(3,100.91)	
04/29/14	Continuous after	07/25/14	04/25/16	Aaa/AA+/AAA	FFCB - Note	5,000,000	0.390%	0.448%	0.878%	4,994,250.00	4,995,793.91	4,991,750.00	(4,043.91)	
05/12/14	Continuous after	05/12/15	05/12/16	Aaa/AA+/NR	FHLB - Note	5,000,000	0.480%	0.480%	0.480%	5,000,000.00	5,000,000.00	5,001,250.00	1,250.00	
11/20/14	N/A	N/A	06/27/16	Aaa/AA+/AAA	FHLMC - Note	5,000,000	0.375%	0.424%	0.424%	4,996,091.65	4,996,165.14	4,996,875.00	709.86	
01/31/14	Continuous	03/27/14	06/27/16	Aaa/AA+/NR	FHLB - Note	5,000,000	0.500%	0.552%	0.552%	4,993,750.00	4,995,914.01	4,993,850.00	(2,064.01)	
05/08/14	N/A	N/A	07/05/16	Aaa/AA+/AAA	FNMA - Note	5,000,000	0.375%	0.484%		4,988,300.00	4,991,369.58	4,999,400.00	8,030.42	
04/29/14	Continuous after	07/29/14	07/29/16	Aaa/AA+/AAA	FFCB - Note	5,000,000	0.550%	0.550%	0.550%	5,000,000.00	5,000,000.00	4,994,050.00	(5,950.00)	
02/11/14	Continuous after	08/11/14	08/11/16	Aaa/AA+/AAA	FFCB - Note	5,000,000	0.570%	0.590%	0.590%	4,997,500.00	4,998,303.18	4,999,900.00	1,596.82	
12/31/13	Quarterly	06/14/13	09/14/16	Aaa/AA+/AAA	FHLMC - Note	5,000,000	0.650%	0.759%	0.759%	4,985,500.00	4,990,416.50	4,999,750.00	9,333.50	
03/14/13	Continuous	12/26/12	09/26/16	Aaa/AA+/NR	FFCB - Note	5,000,000	0.680%	0.683%	0.690%	4,999,500.00	4,999,742.65	4,999,150.00	(592.65)	
11/28/14	Quarterly	05/15/15	11/15/16	Aaa/AA+/NR	FHLMC - Note	5,000,000	0.600%	0.600%	0.600%	5,000,000.00	5,000,000.00	5,000,000.00		
12/09/13	Quarterly	12/09/14	12/09/16	Aaa/AA+/NR	FNMA - Note	5,000,000	0.700%	0.727%	0.780%	4,996,000.00	4,997,302.92	4,996,150.00	(1,152.92)	
12/19/13	Quarterly	06/19/14	12/19/16	Aaa/AA+/AAA	FHLMC - Note	5,000,000	0.750%	0.750%	0.750%	5,000,000.00	5,000,000.00	5,001,600.00	1,600.00	
12/20/13	Quarterly	06/19/14	12/19/16	Aaa/AA+/AAA	FHLMC - Note	5,000,000	0.750%	0.755%	0.755%	4,999,250.00	4,999,486.99	5,001,600.00	2,113.01	
12/27/13	Continuous after	06/24/14	12/27/16	Aaa/AA+/NR	FHLB - Note	5,000,000	0.750%	0.760%	0.760%	4,998,500.00	4,998,963.96	5,000,150.00	1,186.04	
12/27/13	S Quarterly	06/27/14	12/27/16	Aaa/AA+/AAA	FHLMC - Note	2,500,000	0.500%	0.550%	0.550%	2,498,750.00	2,499,136.63	2,497,925.00	(1,211.63)	
03/13/14	Quarterly	06/13/14	03/13/17	Aaa/AA+/NR	FHLB - Note	5,000,000	0.875%	0.946%	1.719%	4,989,500.00	4,992,019.62	5,001,100.00	9,080.38	
04/25/14	Continuous after	04/24/15	04/24/17	Aaa/AA+/NR	FFCB - Note	5,000,000	0.900%	0.976%	1.142%	4,988,750.00	4,990,948.63	5,013,100.00	22,151.37	
10/28/14	Quarterly	01/28/15	04/28/17	Aaa/AA+/AAA	FHLMC - Note	10,000,000	0.820%	0.820%	0.820%	10,000,000.00	10,000,000.00	9,970,500.00	(29,500.00)	
06/30/14	Quarterly	09/30/14	06/30/17	Aaa/AA+/AAA	FHLMC - Note	5,000,000	1.150%	1.113%	0.709%	5,005,500.00	5,004,727.19	4,995,800.00	(8,927.19)	
08/28/14	Quarterly	11/25/14	08/25/17	Aaa/AA+/AAA	FHLMC - Note	5,000,000	1.125%	1.139%	1.139%	4,998,000.00	4,998,173.83	5,007,150.00	8,976.17	
10/24/14	Continuous after	09/18/13	09/18/17	Aaa/AA+/NR	FFCB - Note	5,000,000	0.980%	1.033%	1.033%	4,992,500.00	4,992,768.87	4,996,400.00	3,631.13	
10/30/14	Quarterly	01/30/15	10/30/17	NA/AA+/NR	FHLMC - Note	5,000,000	1.100%	1.100%	1.100%	5,000,000.00	5,000,000.00	5,006,100.00	6,100.00	
10/13/14	N/A	N/A	04/30/36	NR	Direct Muni	ETWD	3,282,270	4.570%	4.570%	4.570%	3,282,269.62	3,282,269.62	3,282,269.62	
SUB-TOTAL						\$278,771,951				\$278,778,710.54	\$278,765,679.53	\$278,805,045.13	\$39,365.60	
<b>RESTRICTED CASH (Swap Collateral Deposits)</b>														
11/03/14				Collateral Deposit	Citi-Group	\$7,888,412		0.090%		\$7,888,411.86	\$7,888,411.86	7,888,411.86		
10/17/14				Collateral Deposit	Merrill Lynch	\$1,700,000		0.090%		\$1,700,000.00	\$1,700,000.00	1,700,000.00		
SUB-TOTAL						\$9,588,412				\$9,588,411.86	\$9,588,411.86	\$9,588,411.86		
<b>TOTAL INVESTMENTS</b>						\$288,360,363				\$288,367,122.40	\$288,354,091.39	\$288,393,456.99		
Petty Cash										3,400.00				
November										4,483,496.56				
										\$292,854,018.96				

(1) LAIF market value is as of the most recent quarter-end as reported by LAIF.

Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.

(2) Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers

(3) Real estate rate of return is based on most recent quarter end return

Outstanding Variable Rate Debt	\$332,300,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps)	\$202,300,000
Investment Balance:	\$292,854,019
Investment to Variable Rate Debt Ratio:	145%
Portfolio - Average Number of Days To Maturity	500

	Investment Portfolio	Real Estate Portfolio (3)	Weighted Avg. Return
November	0.49%	12.18%	2.86%
October	0.48%	12.18%	2.80%
Change	0.01%		

This Investment Summary Report is in conformity with the 2014 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures.

IRVINE RANCH WATER DISTRICT  
SUMMARY OF MATURITIES

11/30/14

DATE	TOTAL	%	LAIF	AGENCIES	COLLATERAL DEPOSIT	Direct Muni	Agency Discount Notes
11/14	\$61,837,353	21.44%	\$52,248,941		\$9,588,412		
12/14	5,000,000	1.73%					5,000,000
01/15	10,000,000	3.47%					10,000,000
02/15							
03/15							
04/15							
05/15	15,000,000	5.20%					15,000,000
06/15	10,000,000	3.47%					10,000,000
07/15	15,000,000	5.20%		15,000,000			
08/15	10,000,000	3.47%		10,000,000			
09/15	5,000,000	1.73%		5,000,000			
10/15	5,000,000	1.73%		5,000,000			
<b>SUB-TOTAL</b>	<b>\$136,837,353</b>	<b>47.44%</b>	<b>\$52,248,941</b>	<b>\$35,000,000</b>	<b>\$9,588,412</b>		<b>\$40,000,000</b>
<b>13 Months - 3 YEARS</b>							
11/1/2015 - 12/30/15	20,000,000	6.94%		20,000,000			
01/01/16 - 03/31/2016	10,740,741	3.73%		10,740,741			
04/01/16 - 06/30/2016	25,000,000	8.67%		25,000,000			
07/01/16 - 9/30/2016	25,000,000	8.67%		25,000,000			
10/01/16 - 12/31/2016	27,500,000	9.54%		27,500,000			
1/1/2017 - 3/31/2017	5,000,000	1.73%		5,000,000			
04/01/17-06/30/17	20,000,000	6.94%		20,000,000			
07/01/17 - 9/30/2017	10,000,000	3.47%		10,000,000			
10/30/17 - 12/31/2017	5,000,000	1.73%		5,000,000			
04/30/2036	3,282,270	1.14%				3,282,270	
<b>TOTALS</b>	<b>\$288,360,363</b>	<b>100.00%</b>	<b>\$52,248,941</b>	<b>\$183,240,741</b>	<b>\$9,588,412</b>	<b>\$3,282,270</b>	<b>\$40,000,000</b>

% OF PORTFOLIO

18.11%

63.55%

3.33%

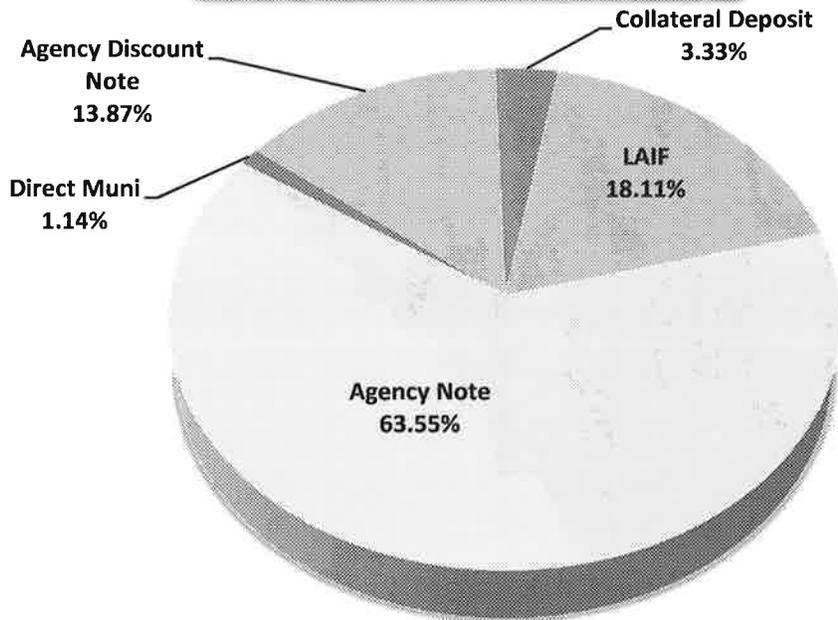
1.14%

13.87%

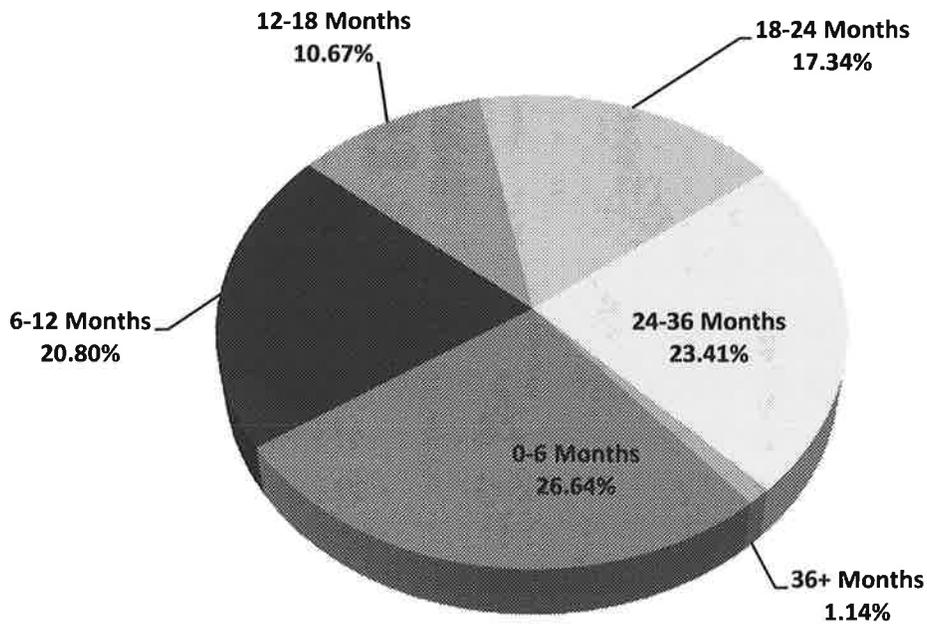
# November 2014 INVESTMENT PORTFOLIO

November 30, 2014

## Portfolio by Investment Type



## Portfolio by Maturities



Irvine Ranch Water District  
 Summary of Real Estate  
 9/30/2014

	<u>ACQUISITION DATE</u>	<u>PROPERTY TYPE</u>	<u>OWNERSHIP INTEREST</u>	<u>ORIGINAL COST</u>	<u>RATE OF RETURN QUARTER ENDED Sep-14</u>
Sycamore Canyon	Dec-92	Apartments	Fee Simple	\$ 43,550,810	15.98%
Wood Canyon Villas	Jun-91	Apartments	Limited Partner	\$ 6,000,000	8.56%
ITC (230 Commerce)	Jul-03	Office Building	Fee Simple	\$ 5,739,845	5.68%
Waterworks Business Pk.	Nov-08	Research & Dev.	Fee Simple	\$ 8,630,577	3.62%
Sand Canyon Professional Center	Jul-12	Medical Office	Fee Simple	\$ 8,648,594	8.41%
				<u>\$ 72,569,826</u>	<u>12.18%</u>

**IRVINE RANCH WATER DISTRICT INVESTMENT SUMMARY REPORT**  
**INVESTMENT ACTIVITY**  
**November**

**MATURITIES/SALES/CALLS**

**PURCHASES**

DATE	SECURITY TYPE	PAR	YIELD	Settlement Date	Maturity Date	SECURITY TYPE	PAR	YIELD TO MATURITY
11/19/2014	FHLB - Discount Note	\$5,000,000	0.05%	11/19/2014	5/20/2015	FHLB - Discount Note	\$5,000,000	0.10%
11/20/2014	FNMA - Note	\$5,000,000	0.52%	11/19/2014	11/18/2015	FHLB - Note	\$5,000,000	0.19%
11/25/2014	FNMA - Note	\$5,000,000	0.65%	11/20/2014	6/27/2016	FHLMC - Note	\$5,000,000	0.38%
				11/28/2014	11/15/2016	FHLMC - Note	\$5,000,000	0.60%
				11/29/2014	4/30/2036	Direct Muni - Install. Sale ETWD	\$1,418,240	4.57%

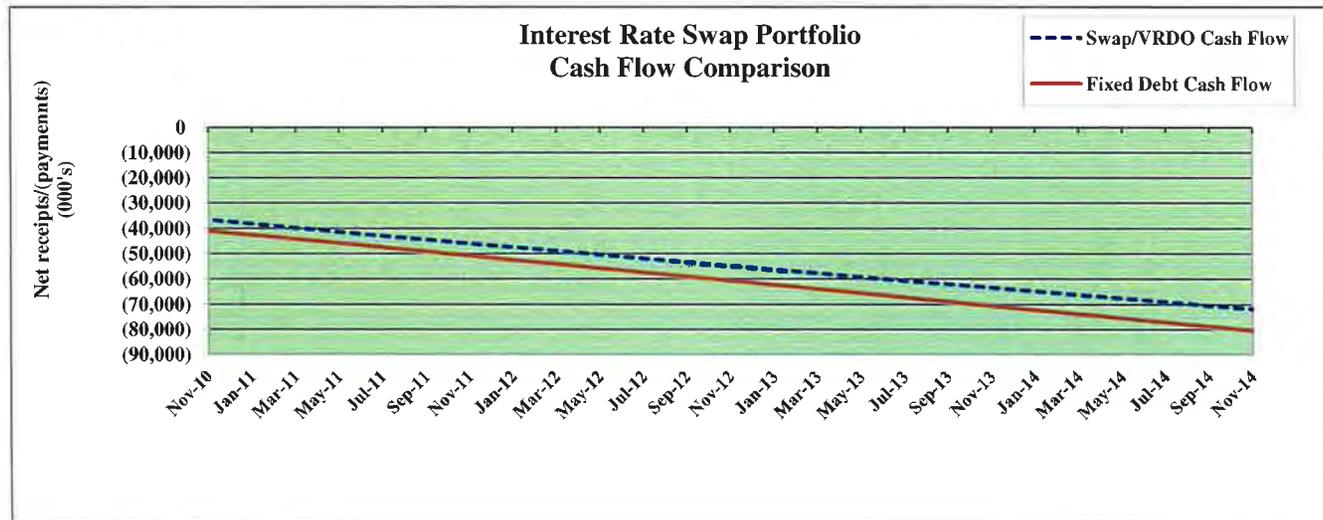
**IRVINE RANCH WATER DISTRICT  
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL  
November 30, 2014**

Exhibit "B"

								LIBOR Avg %			Prior Mo.		Current Mo.		12-Mo Avg	
								0.15%	0.15%	0.16%						
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	4.5	ML	\$ 20,000,000	FXP	LIBOR	6.200%	\$ (104,153)	\$ (90,581)	\$ (496,770)	\$ (7,945,320)	\$ 15,799,661	\$ (4,200,339)			
6/4/2006	6/4/2019	4.5	CG	20,000,000	FXP	LIBOR	6.200%	(104,153)	(90,581)	(496,770)	(7,945,320)	15,790,559	(4,209,441)			
6/17/2006	6/17/2019	4.5	CG	30,000,000	FXP	LIBOR	6.140%	(154,621)	(134,556)	(737,828)	(11,777,999)	23,728,714	(6,271,286)			
3/10/2007	3/10/2029	14.3	ML	30,000,000	FXP	LIBOR	5.687%	(142,981)	(124,357)	(682,030)	(10,535,978)	18,308,036	(11,691,964)			
3/10/2007	3/10/2029	14.3	CG	30,000,000	FXP	LIBOR	5.687%	(142,981)	(124,357)	(682,030)	(10,535,978)	18,234,384	(11,765,616)			
Totals/Weighted Avgs		9.0		\$ 130,000,000			5.949%	\$ (648,889)	\$ (564,432)	\$ (3,095,428)	\$ (48,740,596)	\$ 91,861,354	\$ (38,138,646)			
<b>Total Current Year Active Swaps</b>				\$ 130,000,000				\$ (648,889)	\$ (564,432)	\$ (3,095,428)	\$ (48,740,596)	\$ 91,861,354	\$ (38,138,646)			

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
<b>Total Current Year Active &amp; Terminated Swaps</b>				\$ 130,000,000				\$ (648,889)	\$ (564,432)	\$ (3,095,428)	\$ (48,740,596)	\$ 91,861,354	\$ (38,138,646)



Cash Flow Comparison Synthetic Fixed vs. Fixed Rate Debt	
Cash Flow to Date	
Synthetic Fixed =	\$70,507,613
Fixed Rate =	\$78,986,857
<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  
2014

DATE	AMOUNT	VENDOR	PURPOSE
11/14/2014	910,525.56	BANK OF AMERICA	ACH Payments for Payroll
11/28/2014	720,248.67	BANK OF AMERICA	ACH Payments for Payroll
	<u>\$1,630,774.23</u>		

# Exhibit "D"

IRWD Ledger

Report Date: 02-DEC-2014 15:07

Include Zero Amount Payments: Yes  
 Display Payee Address: No

Void Payment Register  
 Period From: 01-NOV-14

Page: 1  
 To: 30-NOV-14  
 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						
350690	17-JUL-14	WANG, SHIYI	IRVINE		71.71	25-NOV-14
350765	24-JUL-14	INTERINSURANCE EXCHANGE OF	PURCHASE		26,233.00	13-NOV-14
350898	31-JUL-14	DENG, DANIEL	IRVINE		22.60	25-NOV-14
350902	31-JUL-14	ELAHI, AHMAD	NEWPORT BEACH		8.07	25-NOV-14
351307	14-AUG-14	LOWE'S HOME IMPROVEMENT WAR	TUSTIN		316.89	14-NOV-14
351526	28-AUG-14	DEMARCO, JOSEPH	IRVINE		19.86	25-NOV-14
351557	28-AUG-14	JIN, HYUNSUN	IRVINE		29.88	25-NOV-14
351622	28-AUG-14	SWAMINATHAN, DENNI	HENDERSON		70.51	25-NOV-14
352278	29-SEP-14	PERDOMO, GABRIELA	PAY		10.36	06-NOV-14
352543	09-OCT-14	CHAVEZ, RICARDO	PAY		7.39	06-NOV-14
353256	06-NOV-14	Nguyen, Quynh	HOME		118.75	17-NOV-14
353401	06-NOV-14	THE GAS COMPANY	MONTEREY PARK 1		67.26	06-NOV-14
353581	17-NOV-14	TUSTINRANCH/SYCAMORE GLENN	PAY		12.16	17-NOV-14

Payment Document Subtotal 26,988.44

Bank Account Subtotal 26,988.44

Report Count: 13

Report Total 26,988.44 Total Voids

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

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353243		03-NOV-14	BIGWIG MONSTER, LLC	IRVINE	3,000.00	04-NOV-14	3,000.00	Reconciled
353244		06-NOV-14	WM VANDERGEEST LANDSCAPE CARE INC	PAY	753.64			Negotiable
353245		06-NOV-14	Bystrom, Brian V (Brian)		137.00	14-NOV-14	137.00	Reconciled
353246		06-NOV-14	Clary, Cheryl L		12.50	24-NOV-14	12.50	Reconciled
353247		06-NOV-14	Kelly, Cheryl D (Cheryl)		138.21	12-NOV-14	138.21	Reconciled
353248		06-NOV-14	Silva, Constantino (Tino)		145.00	17-NOV-14	145.00	Reconciled
353249		06-NOV-14	Batten, David Benjamin		63.99	17-NOV-14	63.99	Reconciled
353250		06-NOV-14	Perez, David M (David)		130.00	12-NOV-14	130.00	Reconciled
353251		06-NOV-14	Pan, Jenny W (Jenny)		674.49	07-NOV-14	674.49	Reconciled
353252		06-NOV-14	Ryan, Kerrick		14.00	07-NOV-14	14.00	Reconciled
353253		06-NOV-14	Bonkowski, Leslie A (Leslie)		197.10	07-NOV-14	197.10	Reconciled
353254		06-NOV-14	Cortez, Malcolm A (Malcolm)		33.60			Negotiable
353255		06-NOV-14	Swan, Peer		1,988.84	07-NOV-14	1,988.84	Reconciled
353256		06-NOV-14	Nguyen, Quynh		118.75			Voided
353257		06-NOV-14	Habiger, Steve Jr (Steve)		105.00	07-NOV-14	105.00	Reconciled
353258		06-NOV-14	Bonkowski, Thomas J (Thomas)		28.11	07-NOV-14	28.11	Reconciled
353259		06-NOV-14	Gronek, Joan D	HOME	752.25	07-NOV-14	752.25	Reconciled
353260		06-NOV-14	A & Y ASPHALT CONTRACTORS INC		18,777.00	12-NOV-14	18,777.00	Reconciled
353261		06-NOV-14	ADS LLC		1,350.00	10-NOV-14	1,350.00	Reconciled
353262		06-NOV-14	AIRGAS-WEST, INC.		936.11	10-NOV-14	936.11	Reconciled
353263		06-NOV-14	ALL AMERICAN ASPHALT		833.62	18-NOV-14	833.62	Reconciled
353264		06-NOV-14	ALPHA TRAFFIC SERVICES, INC.		570.00	10-NOV-14	570.00	Reconciled
353265		06-NOV-14	ANDERSON AND HOWARD ELECTRIC, INC		2,953.00	13-NOV-14	2,953.00	Reconciled
353266		06-NOV-14	ANTHEM BLUE CROSS		562.26	10-NOV-14	562.26	Reconciled
353267		06-NOV-14	AQUA BEN CORPORATION		34,125.84	12-NOV-14	34,125.84	Reconciled
353268		06-NOV-14	ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA		34,015.80	17-NOV-14	34,015.80	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353269		06-NOV-14	AT&T		446.65	12-NOV-14	446.65	Reconciled
353270		06-NOV-14	AT&T		81.01	12-NOV-14	81.01	Reconciled
353271		06-NOV-14	AUTOZONE PARTS, INC.		280.64	10-NOV-14	280.64	Reconciled
353272		06-NOV-14	BANK OF AMERICA		20,082.20	13-NOV-14	20,082.20	Reconciled
353273		06-NOV-14	BANK OF NEW YORK MELLON TRUST COMPANY NA		1,141.00	13-NOV-14	1,141.00	Reconciled
353274		06-NOV-14	BATTERY SPECIALTIES		236.39	10-NOV-14	236.39	Reconciled
353275		06-NOV-14	BIOMAGIC INC		10,022.40	26-NOV-14	10,022.40	Reconciled
353276		06-NOV-14	BLAIRS TOWING INC		61.00	13-NOV-14	61.00	Reconciled
353277		06-NOV-14	BOWIE, ARNESON, WILES & GIANNONE		27,625.74	25-NOV-14	27,625.74	Reconciled
353278		06-NOV-14	BRUCE NEWELL		1,316.00	12-NOV-14	1,316.00	Reconciled
353279		06-NOV-14	C WELLS PIPELINE MATERIALS INC		3,301.02	07-NOV-14	3,301.02	Reconciled
353280		06-NOV-14	CALIFORNIA BARRICADE INC		2,646.40	13-NOV-14	2,646.40	Reconciled
353281		06-NOV-14	CANON SOLUTIONS AMERICA, INC.		3,251.65	10-NOV-14	3,251.65	Reconciled
353282		06-NOV-14	CELULA INC		265.49	18-NOV-14	265.49	Reconciled
353283		06-NOV-14	CITIGROUP GLOBAL MARKETS INC.		3,062.47	17-NOV-14	3,062.47	Reconciled
353284		06-NOV-14	CITY OF IRVINE		82,799.74	10-NOV-14	82,799.74	Reconciled
353285		06-NOV-14	CITY OF NEWPORT BEACH		768.00	10-NOV-14	768.00	Reconciled

353286	06-NOV-14	CLA-VAL COMPANY	8,939.64	07-NOV-14	8,939.64	Reconciled
353287	06-NOV-14	COASTLINE EQUIPMENT COMPANY	340.19	12-NOV-14	340.19	Reconciled
353288	06-NOV-14	COMMERCE ENERGY INC	320.47	10-NOV-14	320.47	Reconciled
353289	06-NOV-14	COMPUCOM SYSTEMS, INC.	103,902.66	12-NOV-14	103,902.66	Reconciled
353290	06-NOV-14	ONEYBEARE INC	8,614.04	12-NOV-14	8,614.04	Reconciled
353291	06-NOV-14	CREATIVE ALLIANCE GROUP LLC	500.00	14-NOV-14	500.00	Reconciled
353292	06-NOV-14	CREDENTIAL CHECK CORPORATION	718.27	10-NOV-14	718.27	Reconciled
353293	06-NOV-14	CROCKER & CROCKER	25,267.60	14-NOV-14	25,267.60	Reconciled
353294	06-NOV-14	D & H WATER SYSTEMS INC.	7,242.80	18-NOV-14	7,242.80	Reconciled
353295	06-NOV-14	DATAEEO, INC.	71.52	10-NOV-14	71.52	Reconciled
353296	06-NOV-14	DELPHIN COMPUTER SUPPLY	1,507.95	12-NOV-14	1,507.95	Reconciled
353297	06-NOV-14	Gallo, Dilcia E	1,349.26	06-NOV-14	1,349.26	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353298		06-NOV-14	DUDEK		4,250.00	10-NOV-14	4,250.00	Reconciled
353299		06-NOV-14	EAST ORANGE COUNTY WATER DISTRICT		2,371.55	10-NOV-14	2,371.55	Reconciled
353300		06-NOV-14	EI&C ENGINEERING INC		37,500.00	17-NOV-14	37,500.00	Reconciled
353301		06-NOV-14	EMA INC		6,720.00	10-NOV-14	6,720.00	Reconciled
353302		06-NOV-14	EMPLOYEE BENEFIT SPECIALIST, INC		90.00	12-NOV-14	90.00	Reconciled
353303		06-NOV-14	EMPLOYMENT DEVELOPMENT DEPARTMENT		12,699.00	12-NOV-14	12,699.00	Reconciled
353304		06-NOV-14	EXPRESSAIR		66.00	17-NOV-14	66.00	Reconciled
353305		06-NOV-14	FEDEX		662.71	13-NOV-14	662.71	Reconciled
353306		06-NOV-14	FERGUSON ENTERPRISES, INC.		429.84	10-NOV-14	429.84	Reconciled
353307		06-NOV-14	FIDELITY SECURITY LIFE INSURANCE COMPANY		6,086.95	12-NOV-14	6,086.95	Reconciled
353308		06-NOV-14	FIRST CHOICE SERVICES		357.62	10-NOV-14	357.62	Reconciled
353309		06-NOV-14	FISERV		286.00	07-NOV-14	286.00	Reconciled
353310		06-NOV-14	FISH, KEVIN		120.52	18-NOV-14	120.52	Reconciled
353311		06-NOV-14	FISHER SCIENTIFIC COMPANY LLC		1,184.78	10-NOV-14	1,184.78	Reconciled
353312		06-NOV-14	FLW SERVICE CORPORATION		645.00	07-NOV-14	645.00	Reconciled
353313		06-NOV-14	FLW, INC.		415.45	07-NOV-14	415.45	Reconciled
353314		06-NOV-14	GANAHL LUMBER CO.		466.30	17-NOV-14	466.30	Reconciled
353315		06-NOV-14	GOLDMAN, SACHS & CO		21,172.60	13-NOV-14	21,172.60	Reconciled
353316		06-NOV-14	GRAINGER		531.70	10-NOV-14	531.70	Reconciled
353317		06-NOV-14	HAAKER EQUIPMENT COMPANY		1,216.20	07-NOV-14	1,216.20	Reconciled
353318		06-NOV-14	HACH COMPANY		6,771.12	10-NOV-14	6,771.12	Reconciled
353319		06-NOV-14	HARDY & HARPER INC		17,440.00	12-NOV-14	17,440.00	Reconciled
353320		06-NOV-14	HDR ENGINEERING INC		73,336.75	13-NOV-14	73,336.75	Reconciled
353321		06-NOV-14	HENSHALL, DANIELE M		1,200.00	10-NOV-14	1,200.00	Reconciled
353322		06-NOV-14	HILL BROTHERS CHEMICAL COMPANY		23,899.19	13-NOV-14	23,899.19	Reconciled
353323		06-NOV-14	HOME DEPOT USA INC		104.15	13-NOV-14	104.15	Reconciled
353324		06-NOV-14	HUNSAKER & ASSOCIATES IRVINE		896.00	10-NOV-14	896.00	Reconciled
353325		06-NOV-14	IDEXX DISTRIBUTION, INC		6,547.76	10-NOV-14	6,547.76	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353326		06-NOV-14	INDUSTRIAL METAL SUPPLY CO		226.84	12-NOV-14	226.84	Reconciled
353327		06-NOV-14	IRVINE PIPE & SUPPLY INC		5,574.12	07-NOV-14	5,574.12	Reconciled
353328		06-NOV-14	IRVINE UNIFIED SCHOOL DISTRICT		1,144.18	10-NOV-14	1,144.18	Reconciled
353329		06-NOV-14	JOHN G. ALEVIKOS D.O. INC.		320.00	12-NOV-14	320.00	Reconciled

353330	06-NOV-14	JOHN MICHAEL COVAS	138.70	14-NOV-14	138.70	Reconciled
353331	06-NOV-14	KARCHER INSULATTON INC	2,929.00	10-NOV-14	2,929.00	Reconciled
353332	06-NOV-14	KEMP-MEEK MFG, INC	1,392.35	13-NOV-14	1,392.35	Reconciled
353333	06-NOV-14	KENT & AMY DAHLBERG	1,284.00	10-NOV-14	1,284.00	Reconciled
353334	06-NOV-14	KIMBALL MIDWEST	966.04	12-NOV-14	966.04	Reconciled
353335	06-NOV-14	KS DIRECT LLC	2,155.68	07-NOV-14	2,155.68	Reconciled
353336	06-NOV-14	LA HABRA FENCE COMPANY INC	3,498.00	14-NOV-14	3,498.00	Reconciled
353337	06-NOV-14	LARK LABEL LLC	2,030.70	17-NOV-14	2,030.70	Reconciled
353338	06-NOV-14	LEIGHTON CONSULTING, INC.	2,477.00			Negotiable
353339	06-NOV-14	LEUNG, PATRICIA	33.04	17-NOV-14	33.04	Reconciled
353340	06-NOV-14	LI, SIMAN	41.89			Negotiable
353341	06-NOV-14	LILLESTRAND LEADERSHIP CONSULTING, INC.	775.82	24-NOV-14	775.82	Reconciled
353342	06-NOV-14	LINKTURE CORP.	349.80	14-NOV-14	349.80	Reconciled
353343	06-NOV-14	LU'S LIGHTHOUSE, INC.	1,575.76	10-NOV-14	1,575.76	Reconciled
353344	06-NOV-14	LUBRICATION ENGINEERS, INC.	1,288.22	13-NOV-14	1,288.22	Reconciled
353345	06-NOV-14	MARKET-THINK, LLC	4,095.00	10-NOV-14	4,095.00	Reconciled
353346	06-NOV-14	MARVIN GARDENS LLC	961.47	06-NOV-14	961.47	Reconciled
353347	06-NOV-14	MAUREEN SASSOON	9,811.00	10-NOV-14	9,811.00	Reconciled
353348	06-NOV-14	MC FADDEN-DALE INDUSTRIAL	250.97	07-NOV-14	250.97	Reconciled
353349	06-NOV-14	MC MASTER CARR SUPPLY CO	2,043.48	12-NOV-14	2,043.48	Reconciled
353350	06-NOV-14	MCMURRAY STERN, INC.	17,998.50	18-NOV-14	17,998.50	Reconciled
353351	06-NOV-14	MISCOWATER	1,951.81	14-NOV-14	1,951.81	Reconciled
353352	06-NOV-14	MORRISROE, EDWARD	468.90	12-NOV-14	468.90	Reconciled
353353	06-NOV-14	MR CRANE INC	3,026.30	07-NOV-14	3,026.30	Reconciled
353354	06-NOV-14	MSC INDUSTRIAL SUPPLY CO	69.41	14-NOV-14	69.41	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353355		06-NOV-14	MUNICIPAL WATER DISTRICT OF ORANGE COUNTY		13,596.94	12-NOV-14	13,596.94	Reconciled
353356		06-NOV-14	NATIONAL READY MIXED CONCRETE CO.		953.64	10-NOV-14	953.64	Reconciled
353357		06-NOV-14	NEPTUNE TECHNOLOGY GROUP, INC.		76,680.00	13-NOV-14	76,680.00	Reconciled
353358		06-NOV-14	NINYO & MOORE		31,534.50	12-NOV-14	31,534.50	Reconciled
353359		06-NOV-14	NMG GEOTECHNICAL INC		40,819.05	25-NOV-14	40,819.05	Reconciled
353360		06-NOV-14	NOVELL INC		9,800.00	10-NOV-14	9,800.00	Reconciled
353361		06-NOV-14	OLIN CORPORATION		37,250.47	13-NOV-14	37,250.47	Reconciled
353362		06-NOV-14	ON ASSIGNMENT LAB SUPPORT		2,238.96	10-NOV-14	2,238.96	Reconciled
353363		06-NOV-14	ONESOURCE DISTRIBUTORS LLC		2,015.48	10-NOV-14	2,015.48	Reconciled
353364		06-NOV-14	ORANGE COUNTY TREASURER		85.00	07-NOV-14	85.00	Reconciled
353365		06-NOV-14	ORANGE COUNTY TREASURER		1,211.86	07-NOV-14	1,211.86	Reconciled
353366		06-NOV-14	PARKWAY LAWNMOWER SHOP		1,327.81	10-NOV-14	1,327.81	Reconciled
353367		06-NOV-14	PENTAIR VALVES & CONTROLS US LP		1,209.73	13-NOV-14	1,209.73	Reconciled
353368		06-NOV-14	PRINCIPAL LIFE INSURANCE		26,819.46	18-NOV-14	26,819.46	Reconciled
353369		06-NOV-14	PRUDENTIAL OVERALL SUPPLY		3,634.71	10-NOV-14	3,634.71	Reconciled
353370		06-NOV-14	PSB INTEGRATED MARKETING		225.00	07-NOV-14	225.00	Reconciled
353371		06-NOV-14	PSOMAS		1,657.50	12-NOV-14	1,657.50	Reconciled
353372		06-NOV-14	PTI SAND & GRAVEL INC		1,023.64	12-NOV-14	1,023.64	Reconciled
353373		06-NOV-14	QUALITY LAWN SERVICE		180.00	07-NOV-14	180.00	Reconciled
353374		06-NOV-14	QUINCY COMPRESSOR LLC		791.35	12-NOV-14	791.35	Reconciled
353375		06-NOV-14	RAM AIR ENGINEERING INC		13,184.31	12-NOV-14	13,184.31	Reconciled
353376		06-NOV-14	REACH EMPLOYEE ASSISTANCE INC		873.60	13-NOV-14	873.60	Reconciled
353377		06-NOV-14	RED HAWK FIRE & SECURITY (CA) LLC		1,175.00	12-NOV-14	1,175.00	Reconciled
353378		06-NOV-14	RESPONSE ENVELOPE, INC		3,405.33	12-NOV-14	3,405.33	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6

Bank Account Currency: USD ( US Dollar )  
 Payment Type: All

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								
353379		06-NOV-14	RICHARD C SLADE & ASSOCIATES LLC		6,242.28	24-NOV-14	6,242.28	Reconciled
353380		06-NOV-14	RINCON TRUCK CENTER INC.		100.00	07-NOV-14	100.00	Reconciled
353381		06-NOV-14	RITE AID PHARMACY		2,560.00	13-NOV-14	2,560.00	Reconciled
353382		06-NOV-14	RITEWAY AUTO PAINT		3,632.00	07-NOV-14	3,632.00	Reconciled
353383		06-NOV-14	RMC WATER AND ENVIRONMENT		3,152.28	10-NOV-14	3,152.28	Reconciled
353384		06-NOV-14	RMC WATER AND ENVIRONMENT		3,115.50	10-NOV-14	3,115.50	Reconciled
353385		06-NOV-14	ROSEDALE - RIO BRAVO WATER STORAGE DISTRICT		37,434.08	17-NOV-14	37,434.08	Reconciled
353386		06-NOV-14	SANTA MARGARITA FORD		319.49	12-NOV-14	319.49	Reconciled
353387		06-NOV-14	SANTA MARGARITA WATER DISTRICT		171.11	07-NOV-14	171.11	Reconciled
353388		06-NOV-14	SCHINDLER ELEVATOR CORPORATION		174.45	12-NOV-14	174.45	Reconciled
353389		06-NOV-14	SECURTEC DISTRICT PATROL, INC.		9,000.00	17-NOV-14	9,000.00	Reconciled
353390		06-NOV-14	SHAMROCK SUPPLY CO INC		410.72	07-NOV-14	410.72	Reconciled
353391		06-NOV-14	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT		903.14	19-NOV-14	903.14	Reconciled
353392		06-NOV-14	SOUTH COAST ANSWERING SERVICE		638.68	13-NOV-14	638.68	Reconciled
353393		06-NOV-14	SOUTHERN CALIFORNIA EDISON COMPANY		406,252.82	07-NOV-14	406,252.82	Reconciled
353394		06-NOV-14	SOUTHLAND WATER TECHNOLOGIES LLC		830.00	13-NOV-14	830.00	Reconciled
353395		06-NOV-14	SOUTHWEST CONCRETE PRODUCTS		393.01	17-NOV-14	393.01	Reconciled
353396		06-NOV-14	STANDARD REGISTER COMPANY		2,599.63	12-NOV-14	2,599.63	Reconciled
353397		06-NOV-14	STATE INDUSTRIAL PRODUCTS CORPORATION		373.68	14-NOV-14	373.68	Reconciled
353398		06-NOV-14	TABIB, SALLY		58.60	07-NOV-14	58.60	Reconciled
353399		06-NOV-14	TESTAMERICA LABORATORIES, INC		157.50	10-NOV-14	157.50	Reconciled
353400		06-NOV-14	TETRA TECH, INC		1,900.00	10-NOV-14	1,900.00	Reconciled
353401		06-NOV-14	THE GAS COMPANY		67.26			Voided
353402		06-NOV-14	THE GAS COMPANY		660.00	10-NOV-14	660.00	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353403		06-NOV-14	THYSSENKRUPP ELEVATOR CORPORATION		168.18	10-NOV-14	168.18	Reconciled
353404		06-NOV-14	TOTAL TELCO SPECIALISTS INC		5,097.00	18-NOV-14	5,097.00	Reconciled
353405		06-NOV-14	TROPICAL PLAZA NURSERY INC		842.52	07-NOV-14	842.52	Reconciled
353406		06-NOV-14	TRUCPARCO		1,029.41	10-NOV-14	1,029.41	Reconciled
353407		06-NOV-14	TRUGREEN LANDCARE LLC		5,995.00	10-NOV-14	5,995.00	Reconciled
353408		06-NOV-14	ULINE INC		971.27	13-NOV-14	971.27	Reconciled
353409		06-NOV-14	UNITED PARCEL SERVICE INC		474.38	10-NOV-14	474.38	Reconciled
353410		06-NOV-14	UNITED STATES POST OFFICE		23,333.33	17-NOV-14	23,333.33	Reconciled
353411		06-NOV-14	UNITED WATER WORKS, INC.		1,014.69	07-NOV-14	1,014.69	Reconciled
353412		06-NOV-14	URS CORPORATION		503.00	10-NOV-14	503.00	Reconciled
353413		06-NOV-14	US LABS		200.00	18-NOV-14	200.00	Reconciled
353414		06-NOV-14	VA CONSULTING, INC		8,140.00	10-NOV-14	8,140.00	Reconciled
353415		06-NOV-14	VALIN CORPORATION		2,386.97	10-NOV-14	2,386.97	Reconciled
353416		06-NOV-14	VCS ENVIRONMENTAL		4,080.00	10-NOV-14	4,080.00	Reconciled
353417		06-NOV-14	VERIZON CALIFORNIA INC		253.66	12-NOV-14	253.66	Reconciled
353418		06-NOV-14	VERIZON WIRELESS SERVICES LLC		870.96	12-NOV-14	870.96	Reconciled
353419		06-NOV-14	VWR INTERNATIONAL, LLC		89.23	12-NOV-14	89.23	Reconciled
353420		06-NOV-14	WALTERS WHOLESALE		2,097.43	12-NOV-14	2,097.43	Reconciled

353421	06-NOV-14	ELECTRIC WASTE MANAGEMENT OF ORANGE COUNTY		1,809.95	10-NOV-14	1,809.95	Reconciled
353422	06-NOV-14	WATERSMART SOFTWARE, INC		7,500.00	10-NOV-14	7,500.00	Reconciled
353423	06-NOV-14	WAXIE'S ENTERPRISES, INC		152.70	12-NOV-14	152.70	Reconciled
353424	06-NOV-14	YORK INSURANCE SERVICES GROUP INC - CA		7,936.25	07-NOV-14	7,936.25	Reconciled
353425	10-NOV-14	AGAPECORD	PAY	44.32			Negotiable
353426	10-NOV-14	ALNAKEEB, SARMA	PAY	35.89	21-NOV-14	35.89	Reconciled
353427	10-NOV-14	BAKER, KATHERYN	PAY	252.10			Negotiable
353428	10-NOV-14	BANHAGEL, LISA	PAY	54.90			Negotiable
353429	10-NOV-14	BARNHARDT, JULIAN	PAY	36.95	17-NOV-14	36.95	Reconciled
353430	10-NOV-14	BEACON BAY ENTERPRISES INC	PAY	560.94	18-NOV-14	560.94	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8  
 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								
353431		10-NOV-14	BLACKMAN, MARSHA	PAY	24.56	21-NOV-14	24.56	Reconciled
353432		10-NOV-14	BRAVERMAN, JONATHAN	PAY	104.75			Negotiable
353433		10-NOV-14	BURKE, MARK	PAY	29.97	17-NOV-14	29.97	Reconciled
353434		10-NOV-14	CALLAN, TIMOTHY	PAY	43.41	18-NOV-14	43.41	Reconciled
353435		10-NOV-14	CHANG, MERCY	PAY	23.65	17-NOV-14	23.65	Reconciled
353436		10-NOV-14	CHEN, YULI	PAY	127.18			Negotiable
353437		10-NOV-14	CHENG, JULIE X	PAY	46.05	24-NOV-14	46.05	Reconciled
353438		10-NOV-14	CHIGNOLI, BRADD	PAY	15.28	13-NOV-14	15.28	Reconciled
353439		10-NOV-14	EDWARDS, GREG	PAY	97.67	19-NOV-14	97.67	Reconciled
353440		10-NOV-14	FEDOR, MIKE	PAY	53.85	24-NOV-14	53.85	Reconciled
353441		10-NOV-14	GUERRERO, JOE	PAY	100.04	17-NOV-14	100.04	Reconciled
353442		10-NOV-14	HALE, AIMEE	PAY	94.03	24-NOV-14	94.03	Reconciled
353443		10-NOV-14	HAN, ALIANA	PAY	43.41			Negotiable
353444		10-NOV-14	HERITAGE FIELDS, LLC	PAY	308.74	17-NOV-14	308.74	Reconciled
353445		10-NOV-14	HERM, KELLY	PAY	51.75	17-NOV-14	51.75	Reconciled
353446		10-NOV-14	HERNANDEZ, MAYRA	PAY	34.62	17-NOV-14	34.62	Reconciled
353447		10-NOV-14	HUANG, KUO-J	PAY	28.22	25-NOV-14	28.22	Reconciled
353448		10-NOV-14	INVESTMENTS GROUP, MANDRAIN	PAY	29.16	20-NOV-14	29.16	Reconciled
353449		10-NOV-14	IRVINE PACIFIC, LPPAY		134.34	14-NOV-14	134.34	Reconciled
353450		10-NOV-14	KHUDA, KHALED	PAY	158.53	25-NOV-14	158.53	Reconciled
353451		10-NOV-14	KIM, JUNGHWAN	PAY	40.46			Negotiable
353452		10-NOV-14	KING, CYNTHIA	PAY	27.29			Negotiable
353453		10-NOV-14	KLUGER, CHERYL	PAY	26.53	26-NOV-14	26.53	Reconciled
353454		10-NOV-14	KOCH, SAMANTHA	PAY	33.16	17-NOV-14	33.16	Reconciled
353455		10-NOV-14	LACHMISH, NAMAMA	PAY	26.10	20-NOV-14	26.10	Reconciled
353456		10-NOV-14	LAING, KIMBERLY	PAY	35.12	13-NOV-14	35.12	Reconciled
353457		10-NOV-14	LARSON, CAROL A	PAY	10.00	17-NOV-14	10.00	Reconciled
353458		10-NOV-14	LEAVER, LAUREEN	PAY	44.81	18-NOV-14	44.81	Reconciled
353459		10-NOV-14	LENNAR HOMES	PAY	28.68	20-NOV-14	28.68	Reconciled
353460		10-NOV-14	LENNAR HOMES	PAY	10.00	20-NOV-14	10.00	Reconciled
353461		10-NOV-14	LIANA, GORDON	PAY	57.39	18-NOV-14	57.39	Reconciled
353462		10-NOV-14	MESA ORCHARD & ASSOCIATES LLC	PAY	37.44	13-NOV-14	37.44	Reconciled
353463		10-NOV-14	MORRIS, KATIE	PAY	52.45	24-NOV-14	52.45	Reconciled
353464		10-NOV-14	OHE, WILLIAM	PAY	60.03			Negotiable
353465		10-NOV-14	OROZCO, AMALIA	PAY	30.98	25-NOV-14	30.98	Reconciled
353466		10-NOV-14	QIU, QUINGSENG	PAY	23.73			Negotiable
353467		10-NOV-14	RICHARDSON, HEATHER	PAY	40.72	18-NOV-14	40.72	Reconciled
353468		10-NOV-14	RYLAND HOMES OF CALIFORNIA INC	PAY	81.88	26-NOV-14	81.88	Reconciled
353469		10-NOV-14	RYLAND HOMES OF CALIFORNIA INC	PAY	29.16	26-NOV-14	29.16	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353470		10-NOV-14	RYLAND HOMES OF CALIFORNIA INC	PAY	78.12	26-NOV-14	78.12	Reconciled
353471		10-NOV-14	SCHLOM, DAVID	PAY	46.40			Negotiable
353472		10-NOV-14	SHAHRIARY, CYRUS	PAY	27.29			Negotiable
353473		10-NOV-14	SHAWKY, MOKHTAR A	PAY	58.55	13-NOV-14	58.55	Reconciled
353474		10-NOV-14	SIMMONS, STEVEN J	PAY	124.45	24-NOV-14	124.45	Reconciled
353475		10-NOV-14	SONG, YAFAN	PAY	287.94			Negotiable
353476		10-NOV-14	STAR REAL ESTATE	PAY	14.20	14-NOV-14	14.20	Reconciled
353477		10-NOV-14	SUN, YINGMIN	PAY	121.73			Negotiable
353478		10-NOV-14	TALEN, MOHAMMAD	PAY	45.33			Negotiable



Payment Number	Sequence Num	Date	Supplier Name	Site	Payment Amount	Cleared Date	Cleared Amount	Status
Payment Document : IRWD CHECK								
353705		13-NOV-14	HACH COMPANY		1,387.88	18-NOV-14	1,387.88	Reconciled
353706		13-NOV-14	HAND, JEAN		40.75	19-NOV-14	40.75	Reconciled
353707		13-NOV-14	HANNING, BRIDGETT		47.10	01-DEC-14	47.10	Reconciled
353708		13-NOV-14	HARRISON, ANN		26.74	17-NOV-14	26.74	Reconciled
353709		13-NOV-14	HART, LINDA		17.00			Negotiable
353710		13-NOV-14	HATHAWAY DINWIDDIE		968.22			Negotiable
353711		13-NOV-14	HILL BROTHERS CHEMICAL COMPANY		13,860.30	21-NOV-14	13,860.30	Reconciled
353712		13-NOV-14	HOFFMAN, MIKE		65.35			Negotiable
353713		13-NOV-14	HOME DEPOT USA INC		709.17	24-NOV-14	709.17	Reconciled
353714		13-NOV-14	HSU, FRANK		31.58			Negotiable
353715		13-NOV-14	HSU-ORTIZ, LINA		28.92			Negotiable
353716		13-NOV-14	HUANG, SHERRI		90.58	25-NOV-14	90.58	Reconciled
353717		13-NOV-14	HUNG, MIU-KUEN		19.25			Negotiable
353718		13-NOV-14	HUO, HEIKYUNG		51.94	28-NOV-14	51.94	Reconciled
353719		13-NOV-14	IBM CORPORATION		925.00	17-NOV-14	925.00	Reconciled
353720		13-NOV-14	IDENTICARD SYSTEMS WORLDWIDE INC		1,479.30	20-NOV-14	1,479.30	Reconciled
353721		13-NOV-14	II FUELS INC		24,467.33	19-NOV-14	24,467.33	Reconciled
353722		13-NOV-14	INDUSTRIAL DISTRIBUTION GROUP		1,293.37	17-NOV-14	1,293.37	Reconciled
353723		13-NOV-14	INTEGRITY MUNICIPAL SERVICES LLC		32,322.40	21-NOV-14	32,322.40	Reconciled
353724		13-NOV-14	INTERINSURANCE EXCHANGE OF THE AUTOMOBILE CLUB AS SUBROGEE FOR KOPASKIE, MARY		26,233.00	25-NOV-14	26,233.00	Reconciled
353725		13-NOV-14	IRVINE PACIFIC, LP		25.83	25-NOV-14	25.83	Reconciled
353726		13-NOV-14	IRVINE PIPE & SUPPLY INC		602.30	17-NOV-14	602.30	Reconciled
353727		13-NOV-14	IRVINE RANCH OFFICE PARK LLC		197.45			Negotiable
353728		13-NOV-14	IRWD-PETTY CASH CUSTODIAN		1,210.23	14-NOV-14	1,210.23	Reconciled
353729		13-NOV-14	IWASAKI, YOICHI		11.25			Negotiable
353730		13-NOV-14	JENNIFER PHOMMACHARINH		60.12	24-NOV-14	60.12	Reconciled
353731		13-NOV-14	JIN, YIMING		133.30	28-NOV-14	133.30	Reconciled
353732		13-NOV-14	JOHN CRANE, INC.		1,317.04	19-NOV-14	1,317.04	Reconciled
353733		13-NOV-14	JOSHI, BHAVIN		33.36	18-NOV-14	33.36	Reconciled
353734		13-NOV-14	KANG, CHRIS		5.47	01-DEC-14	5.47	Reconciled
353735		13-NOV-14	KB HOMES		69.53	21-NOV-14	69.53	Reconciled
353736		13-NOV-14	KHANDAN, BAHRAM		83.42	26-NOV-14	83.42	Reconciled
353737		13-NOV-14	KHANNA, KUNAL		40.61	25-NOV-14	40.61	Reconciled

IRWD Ledger Payment Register For 01-NOV-14 To 30-NOV-14 Report Date: 02-DEC-2014 15:07  
 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								
353738		13-NOV-14	KIDDER, DENNIS		88.45			Negotiable
353739		13-NOV-14	KIKUCHI, RICHARD		16.64	17-NOV-14	16.64	Reconciled
353740		13-NOV-14	KILEY COMPANY		3,200.00	19-NOV-14	3,200.00	Reconciled
353741		13-NOV-14	KIM, CHANG		42.11			Negotiable
353742		13-NOV-14	KIM, HAGJIN		55.31			Negotiable
353743		13-NOV-14	KIM, KRIS		217.99			Negotiable
353744		13-NOV-14	KLEINFELDER WEST INC		1,480.11	17-NOV-14	1,480.11	Reconciled
353745		13-NOV-14	KO, CAROL		139.38	21-NOV-14	139.38	Reconciled
353746		13-NOV-14	KONECRANES INC		3,802.00	21-NOV-14	3,802.00	Reconciled
353747		13-NOV-14	LA HABRA FENCE COMPANY INC		1,571.00	21-NOV-14	1,571.00	Reconciled
353748		13-NOV-14	LAGUNA BEACH COUNTY WATER DISTRICT		2,115.16	18-NOV-14	2,115.16	Reconciled
353749		13-NOV-14	LAMBERT, ERINN		38.79	17-NOV-14	38.79	Reconciled
353750		13-NOV-14	LAMPAERT, KOEN		106.01			Negotiable
353751		13-NOV-14	LATCH, ROBERT		43.02			Negotiable
353752		13-NOV-14	LEE, HYUKJOO		54.31			Negotiable
353753		13-NOV-14	LEE, JESSICA		26.38	28-NOV-14	26.38	Reconciled
353754		13-NOV-14	LEE, SUNMI		33.71			Negotiable
353755		13-NOV-14	LEWIS BRISBOIS BISGAARD AND SMITH LLP		5,980.00	18-NOV-14	5,980.00	Reconciled
353756		13-NOV-14	LEWIS OPERATING CORP		1,200.00	17-NOV-14	1,200.00	Reconciled
353757		13-NOV-14	LU'S LIGHTHOUSE, INC.		341.91	17-NOV-14	341.91	Reconciled
353758		13-NOV-14	MA, JOANNA		50.65	25-NOV-14	50.65	Reconciled
353759		13-NOV-14	MANSOURI, ALI		26.40	25-NOV-14	26.40	Reconciled
353760		13-NOV-14	MARINIDES,		30.98			Negotiable

## 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-14 to 30-NOV-14

NAME	CHECK	CHECK DATE	TRANSACTION	ITEM DESCRIPTION	EXPENSE JUSTIFICATION
Akiyoshi, Eric	354094	26-Nov-14	116.00	Membership/Certification	Professional Engineer license renewal
Bonkowski, Leslie	353253	6-Nov-14	197.10	Other(Misc)	Meeting supplies
Bonkowski, Leslie	354096	26-Nov-14	530.61	Other(Misc)	Meeting supplies
Bystrom, Brian	353245	6-Nov-14	137.00	Other(Misc)	Safety glasses reimbursement
Gomez, Amador	354092	26-Nov-14	120.00	Other(Misc)	Safety glasses reimbursement
Gronek, Joan	353259	6-Nov-14	148.67	Auto Rental	Attended Oracle Open World Conf., San Francisco, 9/28-10/3/2014
Habiger, Steve Jr	353257	6-Nov-14	105.00	Membership/Certification	Water Distribution Operator Grade D5 renewal fee
Jackson, Brad	353589	13-Nov-14	130.00	Other(Misc)	Water Distribution Operators D-4 Exam
Malloy, Steven	353905	20-Nov-14	115.00	Membership/Certification	Professional Engineer license renewal
Matheis, Mary Aileen	353593	13-Nov-14	104.16	Other(Misc)	Roundtrip mileage attending CSDA Conf., Palm Springs, 9/29-10/2/2014
Nguyen, Quynh	353904	20-Nov-14	118.75	Other(Misc)	CC&B Team Lunch with Infosys
Nieto, Agustin	353898	20-Nov-14	340.00	Membership/Certification	Wastewater Treatment Plant Operator Grade V certificate renewal
Ordonez, Bernardino	353899	20-Nov-14	118.79	Other(Misc)	Safety shoes reimbursement
Pan, Jenny	353251	6-Nov-14	519.68	Lodging	Two nights room and tax, attending IOFM AP Conf., Las Vegas, 10/27-28/2014
Perez, David	353250	6-Nov-14	130.00	Membership/Certification	Water Distribution Operators D-4 Exam
Swan, Peer	353255	6-Nov-14	423.00	Airfare	Roundtrip to Oakland, CA. Natural Resources Defense Council & American Rivers, 7/10/2014
Swan, Peer	353255	6-Nov-14	259.00	Lodging	Room & Tax, attending CASA Annual Conf., Monterey, CA 8/20-22/2014
Swan, Peer	353255	6-Nov-14	259.00	Lodging	Room & Tax, attending CASA Annual Conf., Monterey, CA 8/20-22/2014
Swan, Peer	353255	6-Nov-14	408.80	Other(Misc)	Roundtrip mileage attending CASA Annual Conf., Monterey, CA 8/20-22/2014
Swan, Peer	353255	6-Nov-14	494.20	Airfare	Roundtrip to Sacramento, CA. ACWA Water Mgmt Committee meeting, 8/12/2014
Wang, Peter	353594	13-Nov-14	199.80	Other(Misc)	Safety shoes reimbursement
<b>Total Amount:</b>			<b>\$4,974.56</b>		

December 15, 2014 *gd*

Prepared by: Jennifer Davis/Tanja Fournier *A*

Submitted by: Robert Jacobson/Cheryl Clary *RJ*

Approved by: Paul Cook *Paul Cook*

## CONSENT CALENDAR

### PROPOSED 2015 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 2014, Government Code Section 53601 was amended to add as permitted instruments 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. 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.

During 2014, Government Code Section 53601 was amended to add as permitted instruments 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 percent of the agency's moneys that may be invested pursuant Section 53601. The additional permitted investment has been incorporated into the proposed 2015 Investment Policy, with additional approvals required by the Finance & Personnel Committee prior to any investment of this type. The Investment Policy and related Resolution are attached as Exhibits "A" and Exhibit "B", respectively.

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 2015 Investment Policy includes continuation of this annual delegation of authority to the Treasurer and Assistant Treasurer.

Given the conservative nature of the State codes and the Board's additional restrictions, staff believes the authorized investments in the recommended 2015 Investment Policy are sufficiently limited to ensure appropriate investments 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 9, 2014.

RECOMMENDATION:

THAT THE BOARD APPROVE THE PROPOSED 2015 INVESTMENT POLICY AND ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014-\_\_\_

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 2015 Investment Policy  
Exhibit “B” – Resolution Adopting 2015 Investment Policy

## Exhibit "A"

### IRVINE RANCH WATER DISTRICT

#### PROPOSED 2015 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 2015 calendar year (Resolution 2014-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.

IRVINE RANCH WATER DISTRICT  
2015 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>U.S. Dollar Denominated Senior Unsecured Unsubordinated</u>	<u>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</u>	<u>Limited to securities approved by the Finance and Personnel Committee.</u>

IRVINE RANCH WATER DISTRICT  
2015 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>
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  
2015 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 mortgage-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  
2015 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  
2015 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. 2014-\_\_

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. 2013-56 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 2015 Investment Policy of the District is approved in the form presented by the Treasurer to this meeting, to be effective January 1, 2015, 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, 2015, 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, 2015, and shall remain in effect until it is revoked or is superseded by a subsequent delegation.

ADOPTED, SIGNED AND APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2014.

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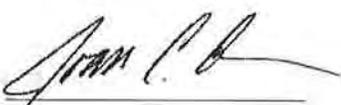
President  
IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

---

Secretary  
IRVINE RANCH WATER DISTRICT  
and of the Board of Directors thereof

APPROVED AS TO FORM:

BOWIE, ARNESON,  
WILES & GIANNONE  
Legal Counsel – IRWD

By 

00172991/112014

December 15, 2014

Prepared by: Eileen Lin *EL*

Submitted by: Cheryl Clary *CC*

Approved by: Paul Cook *PC*

## CONSENT CALENDAR

### FY 2013-14 COMPREHENSIVE ANNUAL FINANCIAL REPORT

#### SUMMARY:

At the November 4, 2014 Finance and Personnel Committee meeting, an initial draft of the Comprehensive Annual Financial Report (CAFR), including audited financial statements, accompanying auditor's report, and management's discussion and analysis of significant changes in transaction amounts and account balances was presented for the Committee's review and comment. Based on that discussion and input from the Committee, staff is providing the proposed FY 2013-14 CAFR incorporating the modifications discussed for final approval, attached as Exhibit "A".

#### BACKGROUND:

At the Committee meeting, the District's auditor, Mayer Hoffman McCann, P.C. 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 notes 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 notes 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 2013-14 CAFR is being prepared for the tenth 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.

The CAFR will be presented to the Board at its December 15, 2014 meeting. 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 4, 2014.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit “A” – Draft FY 2013-14 Comprehensive Annual Financial Report

Exhibit “B” – SAS 114 Auditor’s Communication with Those Charged with Governance from Mayer Hoffman McCann

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 Mayer Hoffman McCann

Exhibit "A"

# WATER RELIABILITY

DRAFT

Water makes it possible.

## IRVINE RANCH WATER DISTRICT

Comprehensive Annual Financial Report  
For Fiscal Year Ended June 30, 2014  
Irvine, California

Water makes it possible.

# Comprehensive Annual Financial Report

For Fiscal Year Ended June 30, 2014

Irvine Ranch Water District  
Irvine, California

## Board of Directors

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

Paul A. Cook, General Manager

## Prepared by:

Irvine Ranch Water District  
Finance Department

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## Financial Section

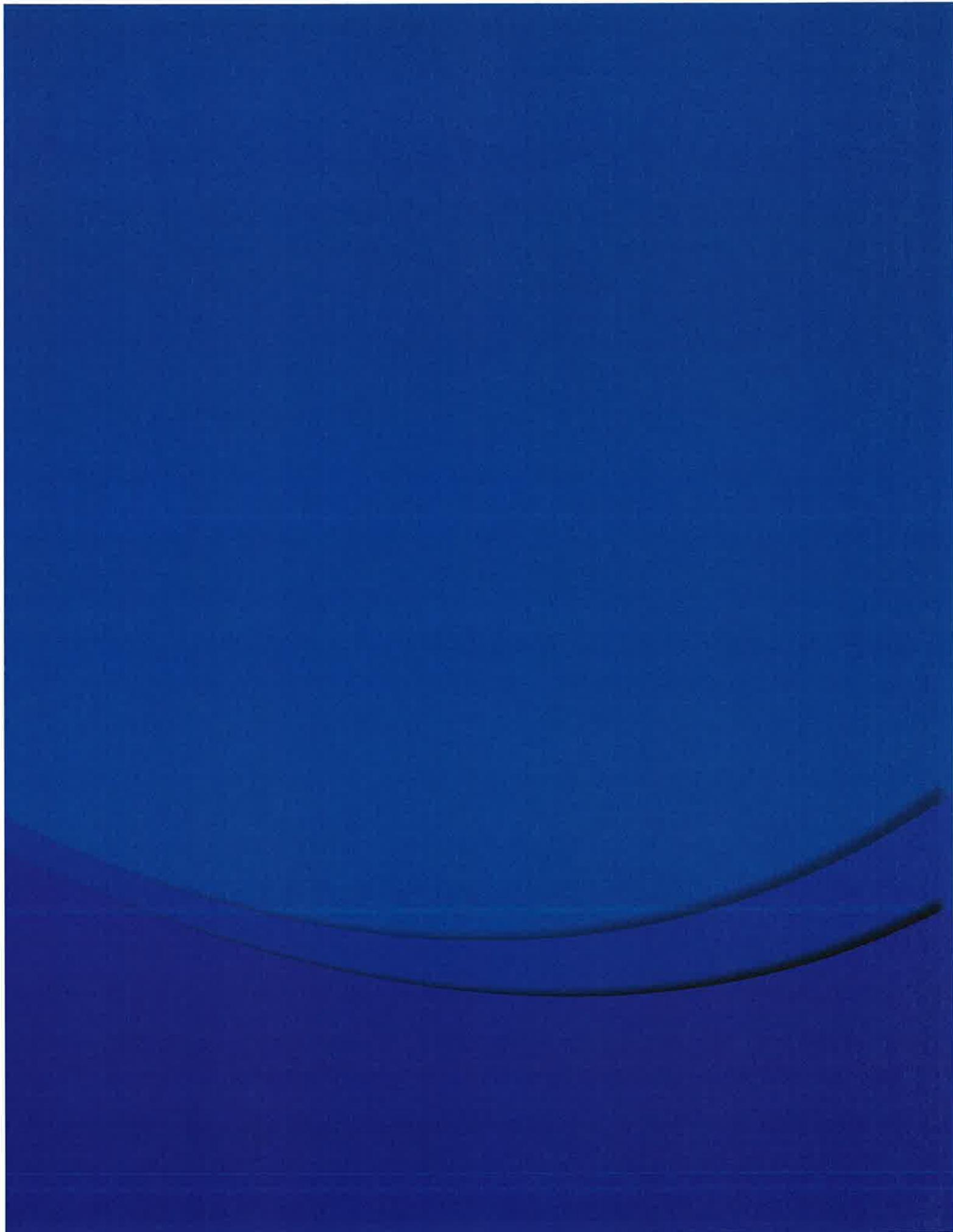
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# INTRODUCTORY SECTION





December 15, 2014

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, 2014. 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. The District's internal controls have been designed to provide appropriate assurance that the basic financial statements will be free from material misstatement. 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 Mayer Hoffman McCann, P.C., 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, 2014 were free of material misstatement. 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, 2014 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 20 years. The District is a leader in developing and implementing resource management initiatives such as water recycling, urban runoff and water conservation, and 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 370,000 through approximately 103,000 water and over 97,000 sewer service connections. The number of service connections has increased by approximately 16% 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.

## Services

The District is functionally organized into four core service areas:

### Drinking or “Potable” Water System

For many years, the District received virtually all of its drinking water from imported sources. To minimize its dependence on imported water, in 1979, the District began to develop a series of local wells known as the Dyer Road Wellfield to pump 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) 2013-14, the largest component of the District's water supply was local groundwater, which accounted for 56% of its total water supply.

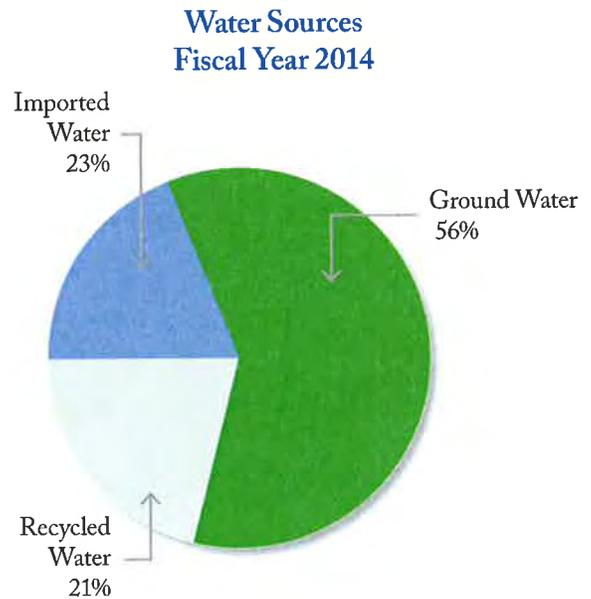
Groundwater typically is less expensive and has been more reliable than imported water because it does not have to be transported over hundreds of miles into Southern California and subsequently treated.

The District purchased 23% of its water supply in FY 2013-14 from the Metropolitan Water District, the region's wholesale water supplier. This water is imported from 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 and industrial 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 36 million gallons of recycled water per day. Once treated, the recycled water is used in the system, which in FY 2013-14 accounted for approximately 21% of the District's total water supply. Approximately 83% 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 ultimate goal is to recycle all its sewage flows whereby recycled water will represent 25% of its total water supply. This increase in recycled water supply will also provide a substantial portion of the water needed to support future growth and redevelopment.

The District operates 5 wells and reservoirs that collect local water for non-potable uses, including Irvine Lake, a 25,000 acre-foot reservoir which receives stream flow (native water) coming from the Santiago Creek watershed. This water is used primarily in the foothills area of the District for agricultural and other irrigation purposes, and supplements the recycled water system during peak demand periods. In addition, the District has approximately 5,200 acre feet of recycled water storage capacity and is currently evaluating additional recycled water storage projects.



## **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. In FY 2013-14, the District treated approximately 91% of its sewage while the remainder of the sewage collected by the District was diverted to capacity owned at the Orange County Sanitation District treatment facilities. The District plans to expand its treatment capacity and this will result in increased water recycling capabilities to serve its growing population. This expansion is discussed in more detail in the Major Initiatives section of this document.

## **Urban Runoff Source Control and Treatment System**

IRWD is statutorily authorized to control and treat urban runoff, and conducts various projects and programs as part of an effort to protect 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. In light of this success, 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, 2014, the Natural Treatment System consists of 20 wetland treatment sites located throughout the District's service area with several more currently under construction. The District has mechanisms in place to fund the operation of these systems.

## **People**

The District employs approximately 330 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 the employees is approximately 10 years. A succession planning program at all levels of the organization has been developed to ensure long-term workforce stability. The District hired Jenny Roney as Director of Human Resources in September 2013. The District promoted Paul Weghorst to Executive Director of Water Policy and Fiona Sanchez to Director of Water Resources in February 2014.

## **Legislative and Regulatory Affairs**

The District actively monitors and works to influence 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. In 2014, the District successfully influenced legislation that was enacted to improve groundwater management throughout the State of California. IRWD's efforts ensured that the District's ability to make use of local groundwater and to operate its water banking projects in Kern County were protected. 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 systems.

Infrastructure Assets			
	2005	2010	2014
<b>Potable System</b>			
Miles of Water Line	990	1,169	1,597
Number of Storage Tanks	27	37	36
Maximum Storage Capacity (acre feet)	418	456	456
Number of Pumping Plants	24	45	41
Number of Wells	21	24	26
Well Production Capacity (cfs)	100	117	124
Water Banking Storage Capacity (acre feet)	-	57,600	59,600
<b>Non-Potable and Recycled Systems</b>			
Miles of Recycled Line	307	407	503
Number of Storage Tanks	14	11	12
Number of Open Reservoirs	4	4	5
Maximum Storage Capacity (acre feet)	23,696	23,703	24,155
Number of Pumping Plants	17	18	19
Number of Wells	3	5	5
Well Production Capacity (cfs)	3.8	9.8	9.8
<b>Sewer System</b>			
Miles of Sewer Line	656	940	1,009
Number of Lift Stations	16	15	11
Treatment Plants	2	2	2
Treatment Capacity (mgd)	22.5	25.5	35.5
Sewage Flows to Michelson Plant	44%	73%	76%
Sewage Flows to Los Alisos Plant	17%	16%	15%
Sewage Flows to Orange County Sanitation District	39%	11%	9%
1 acre foot = 325,900 gallons			
cfs = cubic feet per second			
mgd = millions gallons per day			

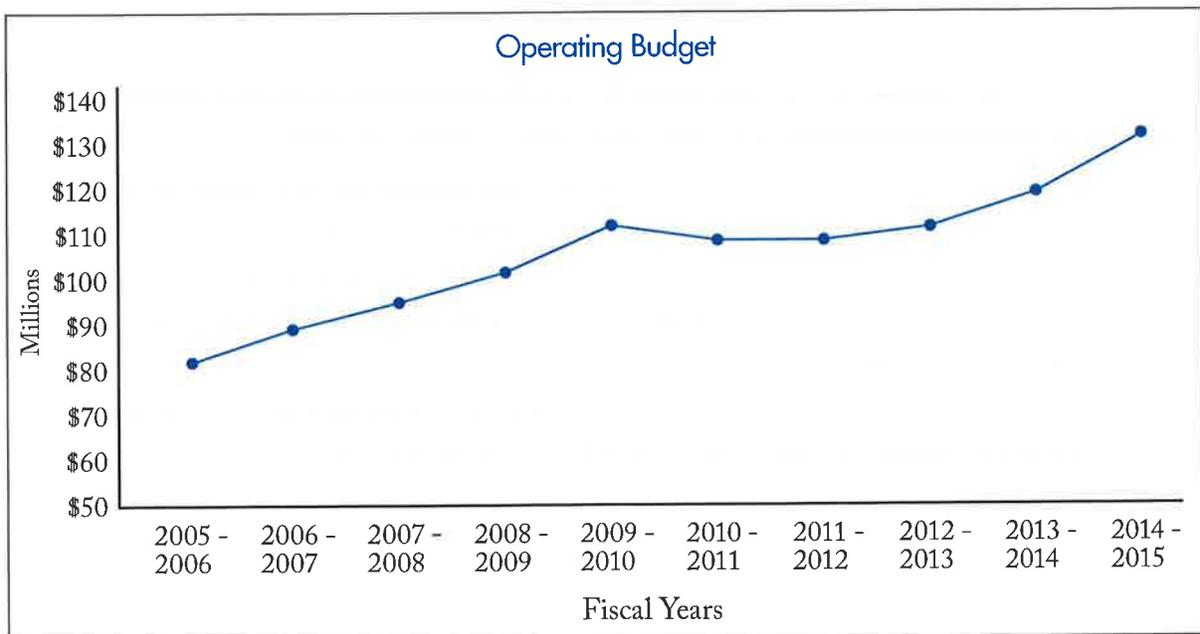
## Financial Plan

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 its customers as cost-efficiently as possible. The graph below shows the approved operating budget over the last 10 years. 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 2014-15 budget increased to \$130.6 million from \$117.1 million in FY 2013-14, or 11.6%. The primary drivers for the increases were an assumed increase in purchased water associated with the warm dry weather and an increase in electricity costs from the District’s third party provider.

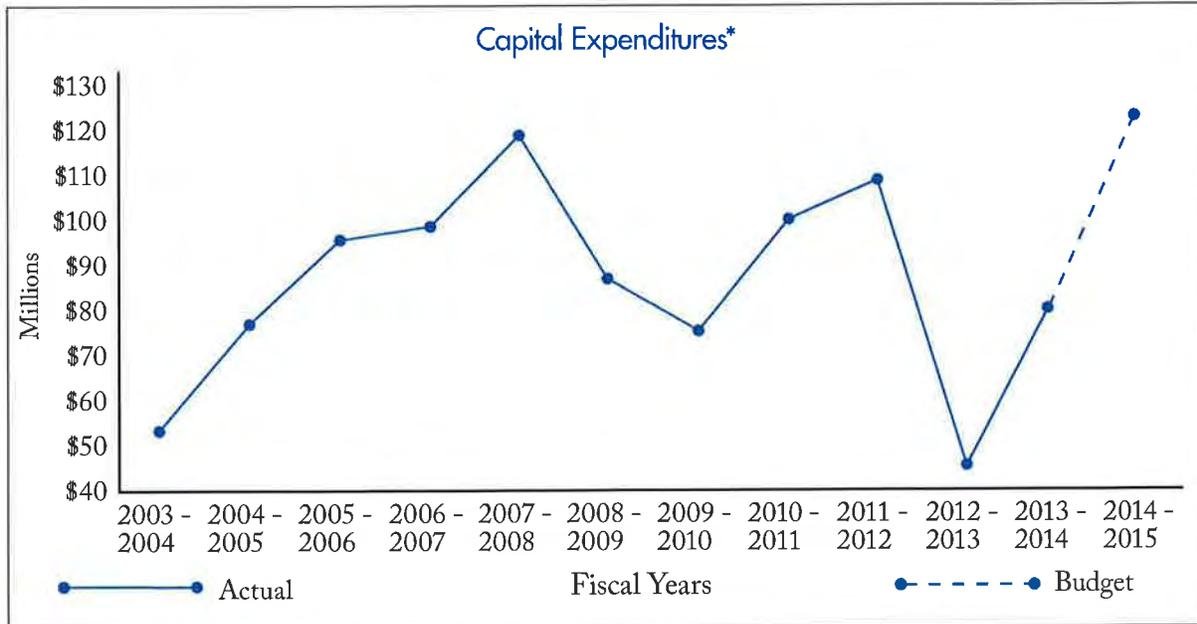


*Wells 21 & 22 Water Treatment Plant*



The Board also approves an annual capital budget based on new, enhancement and replacement infrastructure needs. Below are the actual capital expenditures thru FY 2013-14. The reduced spending in 2012-13 from prior years represents the District’s focus on the completion of several projects and the design period for two new key projects, MWRP Biosolids and Energy Recovery Facilities and the Baker

Water Treatment plants, both of which began construction in FY 2013-14. For FY 2014-15, the adopted capital budget was \$153.7 million. Many capital budget projects extend beyond one fiscal year. 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.



\*Actual capital expenditures excluding overhead, intangibles and capitalized interest.

## User Rates & Charges

User rates and charges are primary 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. Setting replacement monies aside in advance helps stabilize rates and avoids significant potential future rate swings.

The District allocates capital costs throughout 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 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 infrastructure evenly between the developer/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 service charge component. The commodity charge reflects the cost of the District's water supplies while the service charges fund the remaining fixed operational expenses of the District. For FY 2013-14, the District's water fixed service charge was \$9.85 per month (for the Irvine Ranch and Los Alisos rate areas). The District has a long history of planning for the inevitable replacement of capital infrastructure, and has set monies aside into enhancement and replacement funds for this purpose. In FY 2013-14, the monthly fixed service charge includes a user enhancement and replacement component of \$0.70 and \$0.80 respectively per month, intended to fund current and future capital costs that provide reliability and redundancy to the District's infrastructure.

The District has a five-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 and property characteristics, giving consideration to factors such as the number of occupants, type or classification of use, size of lot or irrigated area, evapotranspiration rate for the billing period and other consistently applied criteria. The chart below illustrates the five-tier structure that reflects the increased cost associated with usage in the higher tiers.

### FY 2013-14 Residential Rate Structure – Potable Water (Commodity Charge)\*

Tier	Percent of Estimated Customer Need	Cost per ccf
Low Volume	0 – 40%	\$0.91
Base Rate	41 – 100%	\$1.27
Inefficient	101 – 150%	\$2.86
Excessive	151 – 200%	\$4.80
Wasteful	201% +	\$9.84

One ccf (100 cubic feet) = 748 gallons

\*This rate structure is for the Irvine Ranch rate area. Customers of the former Orange Park Acres Mutual Water Company and the former Los Alisos Water District are on a separate rate structure based on their respective consolidation agreements.

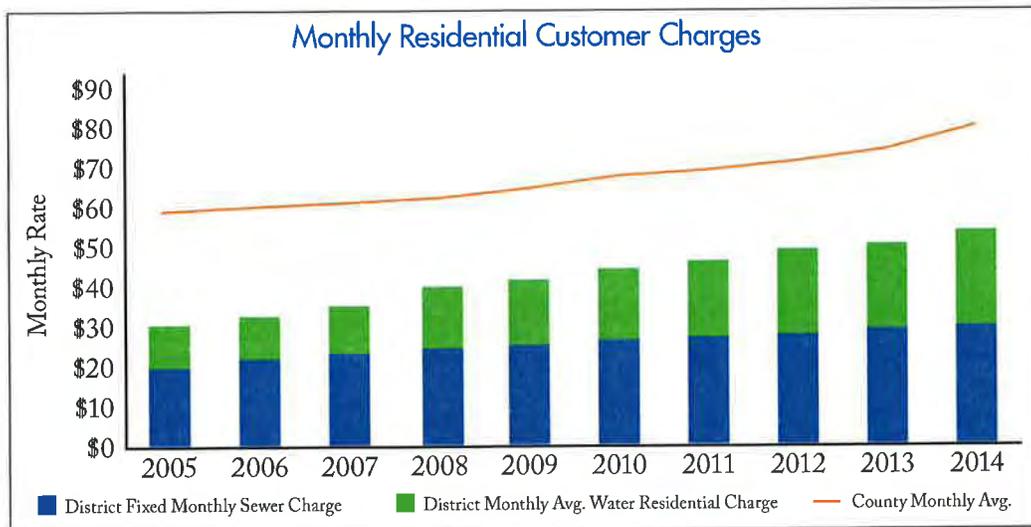
Approximately 80% of the District’s customers are within the first two tiers and 95% of customers fall within the District’s first 3 tiers, making IRWD rates among the lowest in Orange County.

### Sewer Rates

The District’s sewer rates are also among the lowest in Orange County, with a fixed monthly service charge of \$18.40 in FY 2013-14 for a typical residential customer that covers the collection and treatment of sewage. This monthly service charge also includes a user enhancement and replacement component of \$0.70 and \$6.05, 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 \$6.05 includes \$1.00 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.

### Historic Rate Trends

The following chart reflects the annual “base rate” charge for an average customer’s water and sewer service through FY 2013-14. The District raised rates in each of the last twelve years due largely to increased costs for wholesale supplies and fixed service costs for both water and sewer, including funding for future infrastructure development.



The District has completed five consolidations over the last seventeen years – Santa Ana Heights Mutual Water Company in 1997, Carpenter Irrigation District in 2000, Los Alisos Water District in 2001, Santiago County Water District in 2006, and Orange Park Acres Mutual Water Company in 2008, resulting in approximately a 20% increase to the District’s customer base.

The integrated services at the District allow for reduced overhead and administrative costs and lower rates and charges to the customers of the consolidated District. When considering requests for consolidation, the District looks for increased efficiencies through economies of scale and mutual benefits from combined expertise and resources.

Customers served by the districts consolidating with IRWD buy-in to the District’s existing infrastructure and, when completed, receive the benefit of lower rates, enhanced reliability and increased services.

## 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, which is discussed below.

### State and Local Economy

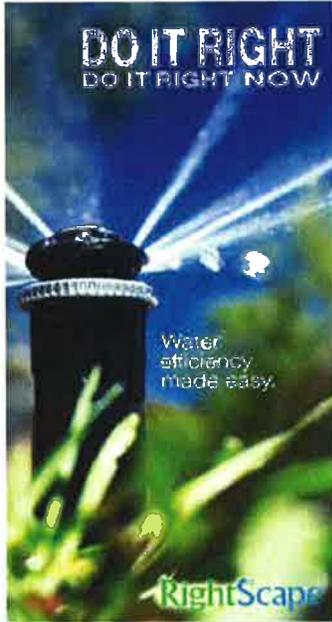
Orange County is the third most populous county in California with over 3.1 million residents and a varied economy in which no single industry is considered dominant. With a location central to Orange County, the District’s service area is the home to numerous corporate headquarters such as Taco Bell 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 2013-14, the District continued to expand its operating facilities to accommodate more than 1,960 new water service connections constructed within District boundaries. There remains about 25% of future development, including the Northern Sphere 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 in the District’s service area has grown significantly in the last decade from \$22.1 billion in 2005 to more than \$42.2 billion in 2014, 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, with the obligation required to be repaid within three years with interest. In June 2013, the State repaid the District with interest. Under Proposition 1A, the State can only exercise its borrowing right again one more time prior to 2019.

## Drought and the Water Use Efficiency



*Water Efficient  
Landscaping Programs*

The District is a leader in the innovation and implementation of water use efficiency measures that promote the most efficient use of water both on a per capita and per acre basis. As a result, the District believes it is well positioned to handle the effects of the current drought. IRWD has led the use of recycled water starting in the late 1960s and presently serves over 5,400 sites with more than 30,000 acre feet of recycled water annually which currently contributes 21% of the District's total water supply. The District's allocation-based 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 IRWD updated in 2009 and again in 2014, is recognized as a model for other agencies to emulate. The State Water Resources Control Board recently approved IRWD's allocation-based rate structure as an alternative method to water conservation in lieu of implementing the requirements of Emergency Drought Regulations that went into effect in July 2104. IRWD was one of only two agencies that received approval of an alternative plan within the State of California. IRWD customers have one of the lowest residential gallons per capita per day rates in California.

The District's Water Use Efficiency Plan is a comprehensive strategy that includes not only environmental considerations, but also addresses the considerable positive financial benefits of water use efficiency for the District and its customers. Specifically:

- As demands for water increase, the District's unit cost of water tends to increase due to the need to purchase more of the expensive imported water.
- Reduced urban runoff (typically the result of "over-watering") minimizes water quality degradation from fertilizers, pesticides and animal waste in creeks, rivers and the ocean.
- Reducing water demands also reduces energy demands on electricity, which is needed to convey water.
- Reduced water use indoors 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, research and technology advances, and the development of financial incentives. Staff regularly updates the Board on the effectiveness of the Plan and funding needs.

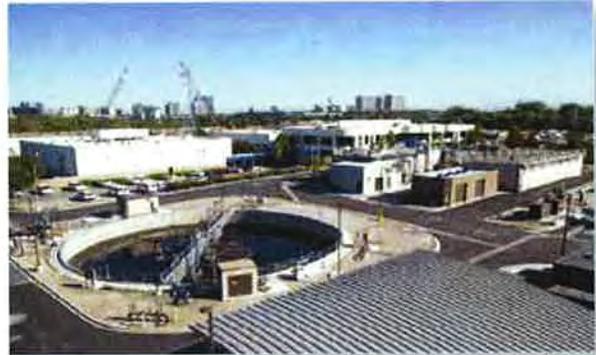
During the past fiscal year, the District provided financial incentives to residential and business customers to install water efficient devices such as high efficiency clothes washers, toilets, irrigation equipment, and conversions from high water use turf landscapes to water-efficient landscapes.

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.

## 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.



*Michelson Water Recycling Plant*

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 annually 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, redundancy, as well as replacing and refurbishing various components of the water and sewer systems. The objective of the funds are to help moderate the financial impact on future user rates attributable to expenditures associated with enhancing and replacing capital facilities. For FY 2013-14, the combined water and sewer user enhancement/replacement fees were \$8.25 per month. For FY 2014-15, the combined water and sewer user enhancement/replacement fees are \$8.90 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 built-out. 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 \$22.4 million to new capital in FY 2013-14 will decline as the District nears build-out. The District has developed a sophisticated financial model to factor in such variables as future development, construction costs, growth rates, inflation, redevelopment and other items in order to project rate setting for funding future capital needs.

In 2011, the District undertook a strategic process to review and, if appropriate, develop modifications to the current capital funding plan. The plan allocates funding responsibility for capital facilities to the area which will benefit from the respective facilities and separates areas on the basis of projected timing of development so that construction can be matched to the development. The process resulted in a master consolidation plan that combined areas (referred to as improvement districts) in order to maintain the future financial viability of each area. Diversification of the District's water supply and sewage treatment options are also major objectives of the District's master plans. Those objectives are discussed in more 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 by establishing a Pension Benefits Trust (Pension Benefits Trust) to fund the PERS unfunded liability, providing 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 to PERS at the District's discretion.

Investment policy and asset allocation decisions relating to the Trust are made by a Retirement Board consisting of 2 members from the IRWD Board of Directors and the General Manager. In FY 2013, the District made a \$35.0 million contribution to the Pension Benefits Trust, bringing the District to a 94.6% funded ratio as of June 30, 2013. In FY 2014, the District made an additional contribution of \$2.2 million to the Pension Benefits Trust. As of June 30, 2014, the fair market value of the assets in the Pension Benefits Trust was approximately \$42.6 million, further reducing the unfunded liability by an additional \$7.6 million. The assets were invested in the Vanguard Institutional Index Fund, Fidelity Concord Spartan International Fund, Metropolitan West Total Return Bond Fund, and Federated Government Obligations Money Market Fund.

## 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. This balance must be upheld in conformance with all applicable State laws, the District's investment policy, and prudent cash management principles.

For FY 2013-14, the District's fixed-income investment portfolio consisted primarily of short-term securities with a portfolio average maturity of approximately 15 months. These securities included U.S. government agency notes, U.S. government agency discount notes, the State-managed Local Agency Investment Fund, local government investments, and a mutual fund of U.S. Treasury securities.

The annual return on all of the District's cash investments in FY 2013-14 was approximately 0.40%. Including real estate investments, the weighted average rate of return was 2.50% for the same period.

At June 30, 2014, the District's cash assets totaled approximately \$317 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. Unspent bond proceeds for future construction represent \$5.0 million of total cash assets at year end.

## **IRWD Joint Powers Agency**

The JPA Issue I and Issue II refunding bonds and underlying investment securities matured in their entirety in FY 2013-14. Under the terms of the Joint Powers Agreement dated December 22, 1986, the JPA's existence terminated automatically on March 15, 2014, upon the retirement of all outstanding bonds of the JPA. As of June 30, 2014, the JPA's assets and liabilities had a \$0 balance as reflected on the Statement of Net Position.

## **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, 2014, the District has an interest in five properties with a book value of \$45.6 million and a weighted average return (on original cost) for FY 2013-14 of 11.8%. Net revenues of \$5.8 million generated in FY 2013-14 from the District's real estate investments are retained within the Replacement Fund.

## **Debt Management Policies and Practices**

The District has strived 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 also minimizes its exposure to interest rate risk by balancing its fixed and variable rate debt and has leveraged the opportunities provided by the low interest rate environment.

The District has primarily used General Obligation (G.O.) bonds and Certificates of Participation (COPs) to fund its capital facilities. As of June 30, 2014, there were eight outstanding general obligation bond issues with a balance of \$340.9 million in variable rate mode and \$175.0 million in fixed rate mode (excluding any unamortized premium or discount). The District also has one outstanding COPs issue with a balance of \$67.3 million in fixed rate mode. The District has secured direct pay letters of credit to enhance certain issues of its variable rate debt.

Under California law, all of the G.O. bonds are secured by the District's ability to levy ad valorem property taxes in the applicable improvement districts 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 G.O. bond debt service through such ad valorem taxes.

The COPs issue is secured by certain revenues of the overall District, predominantly user rates. The District is required under some of its debt covenants to collect revenues which will be at least sufficient to yield 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. First, the Board adopted a policy to maintain a target amount of investment assets equal to at least 75% of the outstanding un-hedged 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 risk exposure on approximately \$194 million\* (or 56.9%) of its variable rate debt to approximately 4.01%. (\*Assumes 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 2013-14, the Federal subsidy payments were cut by 7.2% under Congressionally-mandated sequestration. As a result of the reduced subsidy payments, the net interest rate for the District's BABs issue increased from 4.30% to 4.47%.

The District maintains a healthy balance between fixed and variable rate debt. As of June 30, 2014, the District's outstanding debt portfolio included fixed rate debt at 41.5%, synthetically fixed (hedged) variable rate debt at 33.3% and unhedged variable rate debt at 25.2%, resulting in an average all-in cost of debt of approximately 3.30% for the year.

## **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, and development of emergency plans, including a business continuation plan.

## Major Initiatives

The District's major initiatives during FY 2013-14 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 to the Basin Production Percentage (BPP) set by the Orange County Water District (OCWD) and have enough capacity to meet demands during outage conditions. In 2014, additional areas within IRWD's service area were annexed into OCWD which will allow the District to increase production of groundwater pumped from the basin. Currently, from the Dyer Road Well Field the District has the ability to produce 28,000 acre feet per year (AFY) of clear groundwater that requires no treatment, other than disinfection. The District is in the process of replacing its Orange Park Acres Well which will produce another 900 AFY of clear groundwater. The District also produces 8,300 AFY of groundwater that requires treatment at its Deep Aquifer Treatment System (DATS) which removes organic color and 5,100 AFY of groundwater treated at the Irvine Desalter Project (IDP) which removes salts and nitrates. IRWD's recently completed Wells 21 & 22 Desalter Facility provides an additional 6,300 AFY of treated groundwater to the District's local supply mix. In addition, the District operates 5 wells for non-potable uses.

#### Water Banking

In addition to developing the local groundwater system, the District has diversified its water supply portfolio by developing a water bank in Kern County, California. The purpose of the water bank is to improve the District's water supply reliability by capturing water during wet hydrologic periods for use during severe dry periods or imported water supply interruptions. The water bank is an important part of the District's ability to deliver water under such conditions.

Opportunities for groundwater banking programs in Southern California are limited and more expensive. In contrast, the extensive groundwater basin in Kern County is managed to allow storage of water by outside entities. In 2006, the District purchased approximately 640 acres of high quality groundwater recharge land that overlies the regional Kern County groundwater basin along the Kern River. In 2010, the District purchased an additional 323 acres of recharge land in the same area. The District has completed construction of 761 acres of groundwater recharge ponds on the combined properties.

To operate its water bank, the District has entered into a 30-year water banking partnership with the Rosedale-Rio Bravo Water Storage District (Rosedale) in Kern County. The District's partnership program with Rosedale provides long-term equity ownership of water banking capacity rather than typical contract or lease arrangements employed by most other agencies. As of June 30, 2014, approximately 38,500 acre feet (AF) of water has been recharged at the District's water banking facilities. It is anticipated that an additional 500 AF will be stored by the end of 2014. The majority of this stored water was made available through a 28-year Exchange Agreement that the District has with Buena Vista Water Storage District (BVWSD) in Kern County and agreements with three separate State Water Project Contractors throughout California. The terms of these agreements require that half

of the water be returned to the originating water districts within 5 to 10 years with the balance of the water being available to the District for its use. As of June 30, 2014, the District owned approximately 18,400 AF of water in storage at its water banking facilities and related programs. Seven groundwater wells that can be used to recover water from the water bank have been constructed on the District's water banking properties. Wellheads and pipelines have also been constructed to convey water from these wells to the Cross Valley Canal and to the California Aqueduct. These recovery facilities were successfully used to recover and deliver 1,000 AF water for use by IRWD in 2014, verifying that all necessary agreements and facilities are in place for IRWD to make use of water stored in the water banking projects under periods of severe drought or during periods of supply interruptions. In addition, these wells have been used in 2014 to return water to IRWD's exchange partners.

The District is currently finalizing an Environmental Impact Report (EIR) for the construction and operation of recovery wells on additional lands purchased in 2010. This EIR is expected to be circulated for public review in early 2015 and construction of the additional wells will begin after the document is certified and approved by the District and Rosedale's Board of Directors.



### **Baker Water Treatment Plant**

The Baker Water Treatment Plant (WTP), which is currently under construction, is anticipated to be online and operational in the spring of 2016. The Baker WTP will produce approximately 28 million gallons per day of drinking water and will be capable of treating imported water from Metropolitan Water District of Southern California and local untreated 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, will provide regional water reliability to other neighboring Southern Orange County water agencies. The project cost is estimated at approximately \$103 million, with IRWD responsible for approximately 23% of the total cost.

### **Syphon Recycled Water Seasonal Storage Facility**

Syphon Reservoir, located in the northern portion of Irvine, is a sixty-year-old irrigation reservoir historically used by the Irvine Company for agricultural purposes. The District purchased Syphon Reservoir from the Irvine Company in January 2010 and is in 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. The existing Syphon Reservoir was integrated into the recycled water system in October 2014.

In 2013, the District completed a feasibility study to increase storage capacity in Syphon Reservoir from its current 450 AF up to potentially 5,000 AF. Additional storage will allow the District to recycle more of the sewage flows to the MWRP. An expansion of Syphon Reservoir to 5,000 AF would allow for recycling 100% of the sewage flows tributary to MWRP and 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.



*Biosolids and Energy Recovery Facilities Project*

### **Water Rights**

The District owns 1,747 acre feet of State Water Project water rights within the Dudley Ridge Water District located in Kings County, Ca. The rights provide another source of water supply to enhance reliability. The District receives an allotment of water on an annual basis as determined by the

Department of Water Resources and varies each year based on rainfall and other available water supply.

## 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.

Expanding existing infrastructure for sewage treatment has four primary benefits including:

- Increased recycled water production and utilization,
- Decreased exposure to external treatment costs and operational constraints,
- Decreased dependencies on imported water supplies, and
- Lower total cost.

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. Ultimately, the capacity for these treatment facilities is planned to be 33 and 7.5 mgd, with a collective capacity of 40.5 mgd.



*Michelson Water Recycling Plant*

In addition to the projects identified above, the District has 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. The District has elected to design and build 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 treatment costs. 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 2016 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 teaching value and fostering appreciation for water and the environment which are both vital resources.

Community water education and an awareness of water use efficiency begin at a young age. The District provides innovative water education programs to students in its' service area through a unique partnership with the Discovery Science Center. These exceptional programs are available to all kindergarten through middle school students in any public, private or home school in our service area and meet all California curriculum content standards while bringing water education to life for our students. The partnership with the Discovery Science Center 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 tours for community organizations in our service area. Teaching children and in turn, their families about water and the environment at an early age coupled with extensive customer outreach helps teach the community as a whole about the importance of protecting vital resources and the value of water.

## 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, 2013. 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.

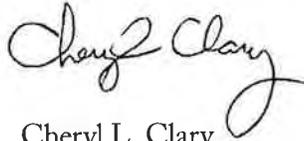
A Certificate of Achievement is valid for a period of one year. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and are submitting it to the GFOA to determine its eligibility for another certificate.

Staff would like to acknowledge the IRWD Board of Directors for their unfailing 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

Steven E. LaMar

Peer A. Swan

Mary Aileen Matheis

Douglas J. Reinhart

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

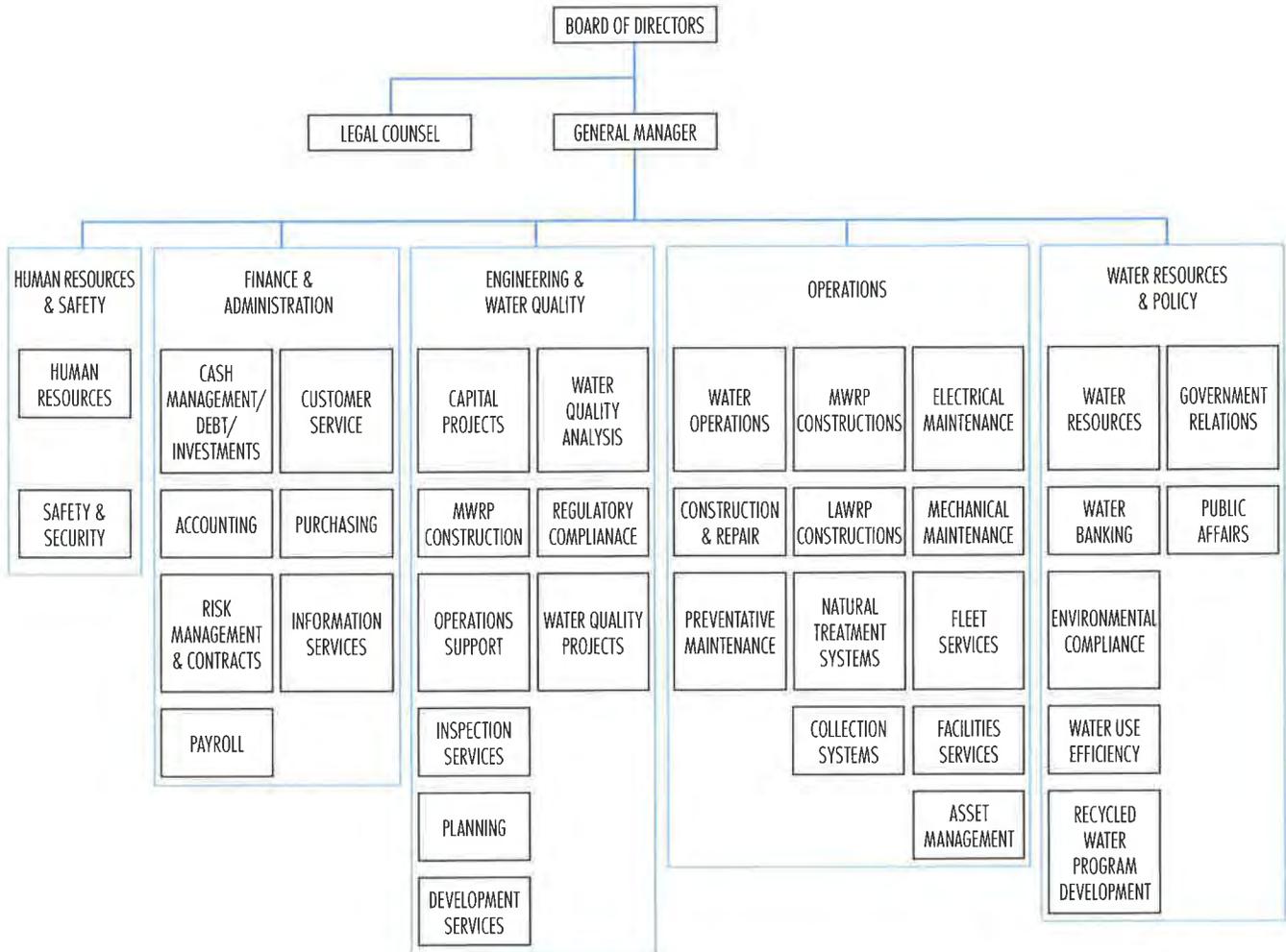
Fiona M. Sanchez

Beth M. Beeman

Tony J. Mossbarger

Robert C. Jacobson

# Irvine Ranch Water District Organizational Chart (By Function) Fiscal Year 2013-14





Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Irvine Ranch Water District  
California**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2013**

Executive Director/CEO

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# FINANCIAL SECTION

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# Financial Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2014



**Mayer Hoffman McCann P.C.**  
An Independent CPA Firm

2301 Dupont Drive, Suite 200 ■ Irvine, CA 92612  
Main: 949.474.2020 ■ Fax: 949.263.5520 ■ www.mhmcpa.com

Board of Directors  
Irvine Ranch Water District  
Irvine, California

**INDEPENDENT AUDITORS' 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, 2014, 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, 2014, 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 1 to the financial statements, during the year ended June 30, 2014, the District implemented GASB Statement No. 65. Our opinion is not modified with respect to this matter.

***Report on Summarized Comparative Information***

We have previously audited the District's 2013 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated December 9, 2013. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2013 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* be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

***Other Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements. The *introductory section* and the *statistical section* are presented for purposes of additional analysis and are not a required part of the basic financial statements. The *introductory section* and the *statistical section* have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Board of Directors  
Irvine Ranch Water District  
Page three

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 1, 2014 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 internal control over financial reporting and compliance.

*Mayer Hoffman McCann P.C.*

Irvine, California  
December 1, 2014

## 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, 2014. 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 outflow of resources exceed total liabilities by \$1,389.6 million (net position), representing \$981.3 million in net investment in capital assets, \$187.9 million restricted for water services and operation and \$220.4 million restricted for sewer services and operation. This is an increase of \$28.4 million or 2.1 percent over the prior year net position of \$1,361.2 million.
- Total assets are \$2,030.2 million, a decrease of \$604.1 million or 22.9 percent over the prior year primarily due to maturities of the JPA investment in March 2014.
- Total revenues are \$204.4 million, an increase of \$8.3 million or 4.2 percent over the prior year primarily as a result of higher operating revenues associated with higher sales due to increased customer demand and a Board approved rate increase.
- Total expenses are \$210.7 million, a decrease of \$6.6 million or 3.0 percent over the prior year primarily due to lower non-operating expenses relating to principal maturities of the JPA bonds.
- Capital contributions are \$34.7 million, an increase of \$0.3 million or 0.8 percent over the prior year due primarily to higher connection fees associated with increased housing activity by developers.
- Total debt was \$591.4 million, a decrease of \$644.1 million or 52.1 percent over the prior year. The decrease in overall debt is due primarily to principal payments of \$642.3 million including \$617.1 million JPA bonds during the current fiscal year.
- The District funded \$2.2 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 the prior fiscal year to fund the PERS unfunded liability, providing the District with an alternative to PERS that allows for investment by a professional fund management team selected and monitored by the District, with future excess contributions transferred to PERS at the District's discretion. The current fiscal year's contribution is included in the net pension asset of \$51.9 million and is discussed in detail in Note 13 of the Notes to the Basic Financial Statements.

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.

## Management's Discussion and Analysis (Continued)

**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 fund the PERS unfunded liability, providing the District with an alternative to PERS that allows for investment by a professional fund management team selected and monitored by the District, with future excess contributions transferred to PERS 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 assessment.

	2014	2013	Increase/(Decrease)	
			Amount	Percentage
<b>Assets</b>				
Current and other assets	\$348.9	\$983.5	\$(634.6)	-64.5%
Capital assets, net	1,567.5	1,506.1	61.4	4.1%
Other noncurrent assets	113.8	144.7	(30.9)	-21.4%
Total assets	2,030.2	2,634.3	(604.1)	-22.9%
<b>Deferred Outflow of Resources</b>				
Deferred refunding charges	1.6	9.8	(8.2)	-83.7%
Accumulated decrease in fair value of swap agreements	36.1	37.5	(1.4)	-3.7%
Total deferred outflow resources	37.7	47.3	(9.6)	-20.3%
<b>Liabilities</b>				
Current and other liabilities	54.9	672.7	(617.8)	-91.8%
Long-term liabilities	623.4	647.7	(24.3)	-3.8%
Total liabilities	678.3	1,320.4	(642.1)	-48.6%
<b>Net Position</b>				
Net investment in capital assets	981.3	918.1	63.2	6.9%
Restricted for water services	187.9	208.8	(20.9)	-10.0%
Restricted for sewer services	220.4	234.3	(13.9)	-5.9%
Total net position	\$1,389.6	\$1,361.2	\$28.4	2.1%

## 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 in Table 1.

As shown in Table 1, the District's total assets decreased \$604.1 million or 22.9 percent. This is due primarily to a decrease of \$639.0 million in the JPA investment and related JPA interest receivable resulting from the JPA investment maturities in March 2014. The decrease was partially offset by an increase of \$19.8 million in cash from the maturity of JPA investment and \$3.6 million capital project deposits from the State of California and local agencies. The District's other noncurrent assets decreased \$30.9 million or 21.4 percent over the prior fiscal year primarily due to an increase of \$23.8 million in capital spending of the District's bond proceed cash and investments.

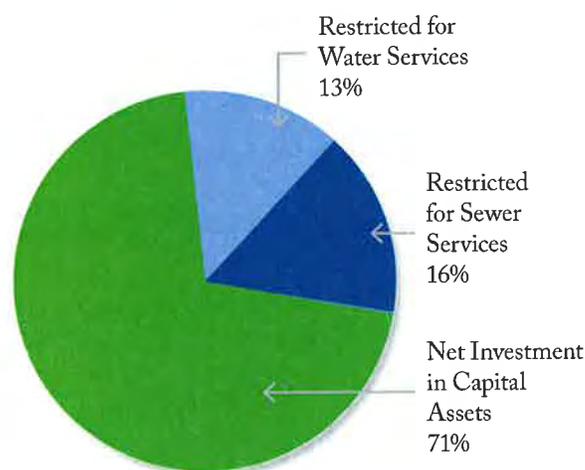
The District's deferred outflow of resources decreased \$9.6 million or 20.3%. This is due primary to a decrease of \$8.2 million in deferred refunding charges of general obligation bonds, JPA revenue bonds, and certificates of participation. Deferred refunding charges are the difference in the carrying 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. The accumulated fair value of swaps decreased from negative \$37.5 million mark to market value to negative \$36.1 million mark to market value during the fiscal year and are also reflected in the deferred outflow of resources.

The District's total liabilities decreased \$642.1 million or 48.6 percent from \$1,320.4 million in the prior fiscal year to \$678.3 million in the current fiscal year. The principal reason is a reduction in the District's debt due primarily to principal payments of \$642.3 million including the two \$617.1 million JPA bond issues during the current fiscal year. The decrease was partially offset by an increase of \$3.6 million in capital project deposits payable to the State of California and local agencies. The District's long-term liabilities decreased \$24.3 million or 3.8 percent over the prior fiscal year primarily due to a reclassification of \$18.4 million of general obligation bonds and certificates of participation from long-term liabilities to current liabilities. In addition, the decrease in long-term liabilities was related to \$4.2 million of principal payoff of general obligation bonds.

Net position at end of the current fiscal year increased from \$1,361.2 million in the prior fiscal year to \$1,389.6 million in the current fiscal year, an increase of \$28.4 million or 2.1 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 the difference between 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 \$981.3 million or 70.6 percent of total net position, an increase of \$63.2 million or 6.9 percent from the prior fiscal year. This resulted primarily from an increase in the net

Net Position at June 30, 2014



## Management's Discussion and Analysis (Continued)

capital assets associated with project spending of capital projects program. Restricted net position for water services were \$187.9 million or 13.5 percent of total net position. Restricted net position for sewer services were \$220.4 million or 15.9 percent of total net position. Restricted net positions are externally restricted by a creditor such as through debt covenants or restricted by law or enabling legislation.

### 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:

	2014	2013	Increase/(Decrease)	
			Amount	Percentage
<b>Operating Revenues</b>				
Water sales and service charges	\$66.3	\$62.6	\$3.7	5.9%
Sewer sales and service charges	58.1	53.1	5.0	9.4%
Total operating revenues	124.4	115.7	8.7	7.5%
<b>Non-operating Revenues</b>				
Property taxes	42.8	41.1	1.7	4.1%
Interest income	1.0	0.2	0.8	400.0%
Increase (decrease) in fair value of investments	(16.2)	(29.1)	12.9	-44.3%
JPA investment income	29.5	49.1	(19.6)	-39.9%
Real estate income	11.9	10.8	1.1	10.2%
Other income	11.0	8.3	2.7	32.5%
Total non-operating revenues	80.0	80.4	(0.4)	-0.5%
Total revenues	204.4	196.1	8.3	4.2%
<b>Operating Expenses</b>				
Water services expenses	71.3	65.8	5.5	8.4%
Sewer services expenses	46.3	46.2	0.1	0.2%
Depreciation	46.8	47.5	(0.7)	-1.5%
Total operating expenses	164.4	159.5	4.9	3.1%
<b>Non-operating Expenses</b>				
Interest expense	15.8	16.8	(1.0)	-6.0%
JPA interest expense	17.2	28.9	(11.7)	-40.5%
Real estate expense	6.1	6.0	0.1	1.7%
Other expense	7.2	6.1	1.1	18.0%
Total non-operating expenses	46.3	57.8	(11.5)	-19.9%
Total expenses	210.7	217.3	(6.6)	-3.0%
Income/(loss) before capital contributions	(6.3)	(21.2)	14.9	-70.3%
Capital contributions	34.7	34.4	0.3	0.8%
Change in Net Position	28.4	13.2	15.2	115.0%
Beginning Net Position	1,361.2	1,348.0	13.2	1.0%
Ending Net Position	<b>\$1,389.6</b>	<b>\$1,361.2</b>	<b>\$28.4</b>	<b>2.1%</b>

### Revenues:

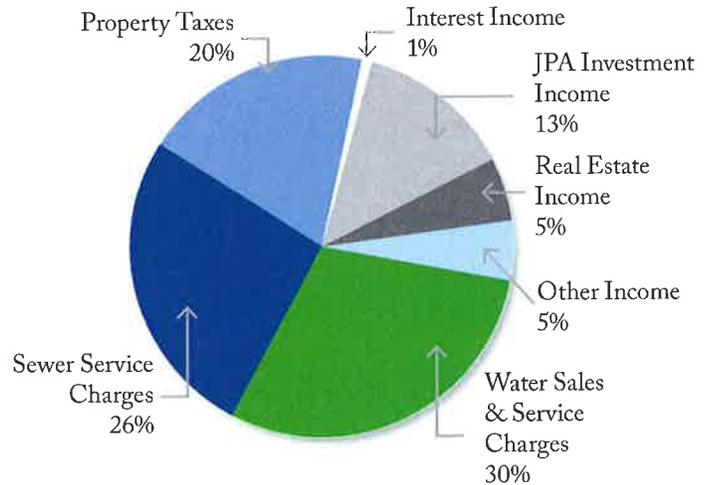
As shown in Table 2, the District's operating revenues total \$124.4 million or 60.9 percent of total revenues. Water sales contribute 53.3 percent to total operating revenues and sewer sales contribute 46.7 percent to total operating revenues. Operating revenues increased by \$8.7 million or 7.5 percent from the prior fiscal year. Overall, approximately 62 percent of the operating revenue increase is attributable to customer growth in the District's service areas due to increased housing activity and a warmer, drier year.

## Management's Discussion and Analysis (Continued)

The remaining increase in operating revenue is attributable to a Board approved rate increase. Consumption increased by 3,615 acre-feet or 4.2 percent from 86,335 acre-feet in the prior fiscal year to 89,950 acre-feet in the current fiscal year. The chart below illustrates the sources of revenue for the fiscal year ended June 30, 2014, excluding the change in the fair market value of investments.

Net non-operating revenues account for 39.1 percent of total revenue for the fiscal year ended June 30, 2014 and decreased \$0.4 million or 0.5 percent from the prior year due primarily to the decrease in the JPA investment income resulting from the JPA investment maturities in March 2014. Excluding the decrease in the fair value of investments, non-operating revenues account for 31.2 percent of total revenues and consist primarily of property tax revenue allocated to the District from the County, the JPA investment income, and real estate income generated from the District's real estate investment assets.

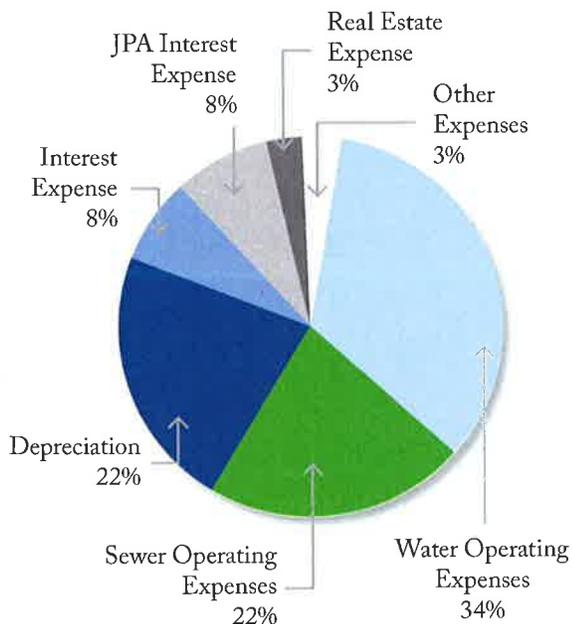
**Sources of Revenue for Fiscal Year Ended June 30, 2014**  
(excluding change in fair market value of investments)



### Expenses:

As shown in Table 2, operating expenses total \$164.4 million, of which \$117.6 million relates to cost of service. This represents 94.5 percent of related revenues before depreciation. Operating expenses

**Functional Expenses for Fiscal Year Ended June 30, 2014**



comprised of water and sewer expenses, excluding depreciation, increased by \$5.6 million or 5.0 percent over the prior year. Water services expense totaled \$71.3 million, an increase of \$5.5 million or 8.4 percent. This is due primarily to an increase in pumped water of 7,258.0 acre-feet (\$2.3 million), higher electricity costs associated with the pumping (\$2.0 million), and expense projects related to the District's capital program (\$1.0 million).

Sewer service expenses totaled \$46.3 million, which is an increase of \$0.1 million or 0.2 percent over the prior year. The increase is primarily due to higher labor costs and related general and administrative expenses of the sewer and recycled operations, partially offset by a decrease in sewer expense projects related to the District's capital program.

Non-operating expenses decreased by \$11.5 million or 19.9 percent primarily due to a decrease of \$11.7 million or 40.5 percent in JPA interest expense resulting from the principal maturities of the JPA bonds Issue #1 and Issue #2 in March 2014.

## Management's Discussion and Analysis (Continued)

### Capital Contributions:

Capital contributions totaled \$34.7 million, an increase of \$0.3 million or 0.8 percent over the prior year. This is due primarily to an increase in connection fees from developers as a result of higher housing activity. During the current fiscal year, the District added over 3,900 new connections for a total of \$22.4 million of connection fees. The District also received \$9.2 million of donated facilities from developers and \$3.1 million of grants from federal and state agencies during the year.

### Capital Assets:

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

**Table 3 - Capital Assets, Net of Depreciation (in millions)**

	2014	2013	Increase/(Decrease)	
			Amount	Percentage
Waterworks in service	\$ 921.9	\$ 890.0	\$ 31.9	3.6%
Sewer plant in service	946.5	920.7	25.8	2.8%
Less: accumulated depreciation	(641.9)	(597.8)	(44.1)	7.4%
Land and water rights	86.3	85.6	0.7	0.8%
Construction in progress	254.7	207.6	47.1	22.7%
<b>Total</b>	<b>\$ 1,567.5</b>	<b>\$ 1,506.1</b>	<b>\$ 61.4</b>	<b>4.1%</b>

Capital assets, net of depreciation increased \$61.4 million or 4.1% from \$1,506.1 million in the prior fiscal year to \$1,567.5 million in the current fiscal year. The increase in the net capital assets was primarily due to an increase \$104.7 million of Construction in Progress during the current fiscal year. The following is a list of top 10 capital projects in the current fiscal year (in millions):

<u>Project Description</u>	<u>Amount</u>
MWRP Biosolids and Energy Recovery Facilities	\$ 38.9
MWRP Expansion Phase II	10.8
Utility Billing Oracle CC&B Implementation	7.0
Well 115 Replacement Well/Wellhead & Site Acquisition	3.0
OPA/Regional Groundwater Project	1.9
16581Bak Code 4224 Columbus Square Backbone Water	1.8
Syphon Reservoir Interim Improvements	1.8
PA18 Phase I Recycled Water Pipelines	1.4
IDF Chlorine Injection Line Replacement	1.4
16581Bak Code 4224 Columbus Square Backbone Sewer	1.0
<b>Total</b>	<b>\$ 69.0</b>

Total projects transferred from Construction in Progress to Capital Assets and depreciated during the fiscal year ended June 30, 2014 were \$57.6 million.

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, 2014, the District had total debt outstanding of \$591.4 million, a decrease of \$644.1 million or 52.1 percent from the prior fiscal year.

	2014	2013	Increase/(Decrease)	
			Amount	Percentage
General obligation bonds	\$ 515.9	\$ 535.6	\$ (19.7)	-3.7%
Joint Powers Agency bonds	-	618.5	(618.5)	-100.0%
Certificates of participation	73.5	79.2	(5.7)	-7.2%
Notes payable	2.0	2.2	(0.2)	-9.1%
<b>Total</b>	<b>\$ 591.4</b>	<b>\$ 1,235.5</b>	<b>\$ (644.1)</b>	<b>-52.1%</b>

During the current fiscal year, the decreases in the District's total debt were primarily due to principal maturities of \$642.3 million. In March 2014, the JPA bonds Issue #1 and Issue #2 in the amount of \$617.1 million matured. The District also amortized \$1.8 million of JPA bonds and certificates of participation during the current fiscal year.

The JPA Issue #1 and Issue #2 refunding bonds and underlying investment securities matured in their entirety in FY 2013-14. Under the terms of the Joint Powers Agreement dated December 22, 1986, the JPA's existence terminated automatically on March 15, 2014, upon the retirement of all outstanding bonds of the JPA.

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 & 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, 2014  
(with comparative data as of June 30, 2013)  
(amounts expressed in thousands)

	2014	2013
<b>ASSETS</b>		
Current Assets:		
Cash and Investments (note 2)	\$300,908	\$275,905
Receivables:		
Customer accounts receivable	8,164	8,354
Interest receivable	239	310
Joint Powers Agency (JPA) interest receivable	-	18,102
Notes receivable, current portion	1	12
Allen-McColloch Pipeline receivable, current portion (note 8)	1	530
Due from other agencies (note 16)	21,218	38,669
Other receivables	3,251	4,273
Total receivables	32,874	70,250
Other Current Assets:		
Inventories (note 4)	3,047	4,241
Prepaid items and deposits	12,122	12,232
JPA investment program, current portion	-	620,895
Total other current assets	15,169	637,368
Total current assets	348,951	983,523
Noncurrent Assets:		
Capital Assets (note 5):		
Waterworks in service	921,899	889,988
Sewer plant in service	946,524	920,658
Subtotal	1,868,423	1,810,646
Less accumulated depreciation	(641,897)	(597,774)
Total capital assets being depreciated, net	1,226,526	1,212,872
Land and water rights	86,252	85,569
Construction in progress	254,747	207,613
Total capital assets, net	1,567,525	1,506,054
Other Noncurrent Assets:		
Bond proceed cash and investments (note 2)	5,234	29,083
Investments - swap collateral (note 2)	9,721	14,536
Investment in installment sale agreement (note 2)	1,123	-
Unamortized debt issuance expense	-	2,208
Notes receivable, net of current portion	126	127
Allen-McColloch Pipeline receivable, net (note 8)	3	1,854
Real estate investments (note 7)	45,612	46,811
Net pension asset (note 13)	51,937	50,148
Total other noncurrent assets	113,756	144,767
Total noncurrent assets	1,681,281	1,650,821
<b>TOTAL ASSETS</b>	<b>2,030,232</b>	<b>2,634,344</b>
<b>DEFERRED OUTFLOW OF RESOURCES</b>		
Deferred refunding charges	1,586	9,759
Accumulated decrease in fair value of swap agreements (note 3)	36,064	37,493
<b>TOTAL DEFERRED OUTFLOW OF RESOURCES</b>	<b>37,650</b>	<b>47,252</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Net Position  
June 30, 2014  
(with comparative data as of June 30, 2013)  
(amounts expressed in thousands)  
(Continued)

	2014	2013
<b>LIABILITIES</b>		
Current Liabilities:		
Account payable and accrued expenses	25,758	21,414
Customer deposits and advance payments	4,009	264
Accrued interest:		
General obligation bonds	1,501	1,683
JPA revenue bonds	-	4,519
Other accrued interest payable	2,347	2,384
Current portion of long-term liabilities:		
General obligation bonds (note 9)	12,100	15,500
Certificates of participation (note 9)	6,271	5,661
JPA revenue bonds (note 9)	-	618,544
Notes payable (note 9)	257	256
Other long term liabilities (note 9)	1,527	1,380
Unearned revenue (note 10)	525	525
Claims liability (note 17)	564	562
Total current liabilities	54,859	672,692
Long-Term Liabilities:		
General obligation bonds, net of current portion (note 9)	503,800	520,100
Certificates of participation, net of current portion (note 9)	67,294	73,564
Notes payable, net of current portion (note 9)	1,727	1,984
Other long term liabilities (note 9)	2,912	2,716
Unearned revenue, net of current portion (note 10)	8,374	8,900
Claims liability, net of current portion (note 17)	612	526
Net OPEB obligation (note 14)	2,625	2,444
Swap liability (note 3)	36,064	37,493
Total long-term liabilities	623,408	647,727
<b>TOTAL LIABILITIES</b>	<b>678,267</b>	<b>1,320,419</b>
NET POSITION (note 12):		
Net investment in capital assets	981,310	918,073
Restricted for water services	187,877	208,779
Restricted for sewer services	220,428	234,325
<b>TOTAL NET POSITION</b>	<b>\$ 1,389,615</b>	<b>\$ 1,361,177</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, 2014  
(with comparative data for the Fiscal Year Ended June 30, 2013)  
(amounts expressed in thousands)

	2014	2013
<b>OPERATING REVENUES:</b>		
Water sales and service charges	\$ 66,321	\$ 62,565
Sewer sales and service charges	58,109	53,085
Total operating revenues	124,430	115,650
<b>OPERATING EXPENSES:</b>		
Water:		
Water services	57,624	51,163
General and administrative	13,660	14,619
Sewer:		
Sewer services	37,715	38,189
General and administrative	8,612	8,048
Depreciation	46,809	47,539
Total operating expenses	164,420	159,558
Operating income (loss)	(39,990)	(43,908)
<b>NONOPERATING REVENUES (EXPENSES):</b>		
Property taxes	42,751	41,068
Interest income	1,079	224
Increase (decrease) in fair value of investments	(16,177)	(29,180)
JPA investment income	29,522	49,178
Real estate income	11,899	10,789
Other income	10,974	8,323
Interest expense	(15,836)	(16,770)
JPA interest expense	(17,166)	(28,884)
Real estate expense	(6,139)	(6,047)
Other expenses	(7,163)	(6,110)
Total nonoperating revenues (expenses)	33,744	22,591
Income (loss) before capital contributions	(6,246)	(21,317)
<b>CAPITAL CONTRIBUTIONS:</b>		
Donated facilities	9,171	9,742
Connection fees	22,429	17,314
Other	3,084	7,479
Increase (decrease) in net position	28,438	13,218
<b>NET POSITION AT BEGINNING OF YEAR</b>	<b>1,361,177</b>	<b>1,347,959</b>
<b>NET POSITION AT END OF YEAR</b>	<b>\$ 1,389,615</b>	<b>\$ 1,361,177</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Cash Flows  
For the Fiscal Year Ended June 30, 2014  
(with comparative data for the Fiscal Year Ended June 30, 2013)  
(amounts expressed in thousands)

	2014	2013
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Cash received from customers and users	\$ 128,861	\$ 117,426
Cash paid to suppliers of goods and services	(46,570)	(44,143)
Cash paid for employees services	(43,856)	(78,805)
	38,435	(5,522)
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:</b>		
Property tax receipts	40,614	39,089
	40,614	39,089
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>		
Acquisition and construction of capital assets	(98,217)	(64,942)
Proceeds from disposition of capital assets	312	257,355
Refunding of long term debt	-	(256,282)
Principal payments on long-term liabilities	(642,367)	(57,856)
Interest and issuance costs on long term liabilities	(29,134)	(40,623)
Developer connection fees and related receipts	25,513	24,793
	(743,893)	(137,555)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Investment earnings	48,237	49,799
Investment earnings in real estate	6,959	6,256
Proceeds from sale or maturity of investments	816,716	156,483
Purchases of investments	(200,785)	(193,108)
Collections on notes receivable	2,392	514
Additions to notes receivable	-	(14)
	673,519	19,930
Net cash provided by (used for) investing activities	673,519	19,930
Net increase (decrease) in cash and cash equivalents	8,675	(84,058)
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>	<b>105,524</b>	<b>189,582</b>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<b>\$ 114,199</b>	<b>\$ 105,524</b>

See accompanying notes to the basic financial statements.

**Irvine Ranch Water District**  
Statement of Cash Flows  
For the Fiscal Year Ended June 30, 2014  
(with comparative data for the Fiscal Year Ended June 30, 2013)  
(amounts expressed in thousands)  
(Continued)

	2014	2013
Reconciliation of cash and cash equivalents to amounts reported on the Statement of Net Assets:		
Cash and investments	\$ 300,908	\$ 275,905
JPA investment program, current portion	-	620,895
Bond Proceed cash and investments	5,234	29,083
Investments - swap collateral	9,721	14,536
Investment in installment sale agreement	1,123	-
	316,986	940,419
Subtotal	316,986	940,419
Less long-term investments	(202,787)	(834,895)
	\$ 114,199	\$ 105,524
Reconciliation of operating income to net cash provided by (used for) operating activities:		
Operating income (loss)	\$ (39,990)	\$ (43,908)
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:		
Other nonoperating income	10,974	8,323
Other nonoperating expenses	(7,163)	(6,110)
(Gain) loss on disposition of capital assets	9,205	16,737
Depreciation	46,809	47,539
(Increase) decrease in customer receivables	190	(1,816)
(Increase) decrease in other receivables	1,022	4,302
(Increase) decrease in inventories	1,194	(2,008)
(Increase) decrease due from other agencies	9,716	11,299
(Increase) decrease in prepaid expenses and other assets	110	1,409
(Increase) decrease in net pension asset	(1,789)	(38,543)
Increase (decrease) in accounts payable and accrued expenses	4,345	(3,553)
Increase (decrease) in customer deposits and advance payments	3,745	(185)
Increase (decrease) in compensated absences	324	195
Increase (decrease) in claims payable	88	1,088
Increase (decrease) in unearned revenue	(526)	(525)
Increase (decrease) in net OPEB obligation	181	234
	\$ 38,435	\$ (5,522)
Net cash provided by (used for) operating activities	\$ 38,435	\$ (5,522)
Noncash investing, capital and financing activities:		
Contributions of capital assets from developers	\$ 9,171	\$ 9,742
Unrealized gain (loss) on investments	(16,177)	(29,180)
Total noncash investing, capital and financing activities	\$ (7,006)	\$ (19,438)

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, 2014  
(with comparative data as of June 30, 2013)  
(amounts expressed in thousands)

	2014	2013
<b>ASSETS</b>		
Cash and investments (note 2)	\$ 42,570	\$ 35,000
Interest receivable	21	-
<b>TOTAL ASSETS</b>	<b>42,591</b>	<b>35,000</b>
 <b>NET POSITION</b>		
Net position held in trust for pension benefits	\$ 42,591	\$ 35,000

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, 2014  
(with comparative data for the Fiscal Year Ended June 30, 2013)  
(amounts expressed in thousands)

	2014	2013
<b>ADDITIONS</b>		
Contributions:		
Employer	\$ 2,237	\$ 35,000
Total contributions	2,237	35,000
Investment income:		
Interest	21	-
Dividends	868	-
Investments gain	2,206	-
Net increase in the fair value of investments	2,368	-
Total investment earnings	5,463	-
Total additions	7,700	35,000
<b>DEDUCTIONS</b>		
Administrative expenses	109	-
Total deductions	109	-
Increase (decrease) in net position	7,591	35,000
<b>NET POSITION AT BEGINNING OF YEAR</b>	35,000	-
<b>NET POSITION AT END OF YEAR</b>	\$ 42,591	\$ 35,000

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, 2014

**(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 and Orange Park Acres service areas. The Los Alisos and Orange Park Acres areas were consolidated into the District in 2001 and 2008, respectively. Los Alisos and Orange Park Acres currently have separate user rate structures for water sales and service charges.

**Description of the Reporting Entity**

In 2011, the District began a strategic process to review and, if appropriate, develop modifications to the current capital funding plan. The plan allocates funding responsibility for capital facilities to the area which will benefit from the respective facilities and separates areas on the basis of projected timing of development so that construction can be matched to the development. The process resulted in a master consolidation plan that combined areas (referred to as improvement districts) in order to maintain the future financial viability of each area. The financial statements of the District include the financial activities of the following improvement districts and planning areas.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

**Description of the Reporting Entity (Continued)**

The following is the result of the master consolidation plan:

Old IDs and PAs	New IDs and PAs	Name of New IDs and PAs
112/212	112/212	Former El Toro Marine Base
113/213	113/213	Former Tustin Marine Base
115/215	125/225	Developed/Underlay
120/121 & 220/221	125/225	Developed/Underlay
130/230	125/225	Developed/Underlay
135/235	125/225	Developed/Underlay
140	125	Developed/Underlay
240	240	Newport Coast/Newport Ridge
150/250	125/225	Developed/Underlay
252	252	Santiago Hills
153/253	153/253	Irvine Business District /Spectrum/ Shady Canyon/Laguna Laurel/ East Orange
154	154	Santiago Canyon(s)
256	256	Orange Park Acres
160/161 & 260/261	125/225	Developed/Underlay
182/282	125/225	Developed/Underlay
184/284	125/225	Developed/Underlay
	185/285	Los Alisos Area
186/189 & 286/289	125/225	Developed/Underlay
188/288	188/288	Portola Hills Commercial
100/101/155/156/199 & 200/210/211/299	101/210	Overall District Boundary

**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 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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

**IRWD Water Service Company II, LLC (LLC II)** – LLC II was created to effect the merger of the Orange Park Acres Mutual Water Company into the Irvine Ranch Water District. The merger became effective on June 1, 2008. The Orange Park Acres area's financial data and transactions are included in Planning Area 156. The two members of the LLC II are the District and the Irvine Ranch Water District Water Service Corporation (described above). The LLC II 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 of the District's 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.

(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 in 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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

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

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.

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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

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

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.

**(e) Cash and Cash Equivalents**

For the purposes of the statement of cash flows, cash equivalents are defined as short-term, highly liquid investments that are both readily convertible to known amounts of cash or so near to their maturity that they present insignificant risk of changes in value because of changes in interest rates, and have an original maturity date of 3 months or less.

**(f) District Investments**

Investments are reported in the accompanying Statement of Net Position at fair value, except for certain investment contracts that are reported at cost because they are not transferable and they have terms not affected by changes in market interest rates.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

**(f) District Investments (Continued)**

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. The limited partnership is accounted for using the cost method of accounting.

**(i) 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.

**(j) 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 fair market 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

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

(k) **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.

(l) **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 only has two 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 the changes in fair market value of the fixed payer interest rate swaps.

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 does not have any items that qualified for reporting in this category.

(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. 50% 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) **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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

(o) **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.

(p) **Adopted GASB Pronouncements**

**GASB Statement No. 65** - The GASB has issued Statement No. 65, *Items Previously Reported as Assets and Liabilities*. This Statement specifies the items that were previously reported as assets and liabilities that should now be reported as deferred outflows of resources, deferred inflows of resources, outflows of resources, or inflows of resources. The statement was implemented effective July 1, 2013. 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.

**GASB Statement No. 66** - The GASB has issued Statement No. 66, *Technical Corrections-2012; an amendment of GASB Statements No. 10 and No. 62*. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2012. The Statement was implemented effective July 1, 2013, which had no impact on the District.

**GASB Statement No. 70** - The GASB has issued Statement No. 70, *Accounting and Financial Reporting for Nonexchange Financial Guarantees*. This Statement establishes accounting and financial reporting standards for situations where a state or local government, as a guarantor, agrees to indemnify a third-party obligation holder under specified conditions (i.e., nonexchange financial guarantees). The issuer of the guaranteed obligation can be a legally separate entity or individual, including a blended or discretely presented component unit. Guidance is provided for situations where a state or local government extends or receives a nonexchange financial guarantee. The requirements of this Statement are effective for financial statements for reporting periods beginning after June 15, 2013. The Statement was implemented effective July 1, 2013, which had no impact on the District.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

(2) **Cash and Investments**

Cash and investments as of June 30, 2014 are classified in the accompanying financial statements as follows (in thousands):

<b>Statement of Net Position:</b>	
Cash and investments	\$ 300,908
Bond proceed cash and investments	5,234
Investments-swap collateral	9,721
Investment in installment sale agreement	<u>1,123</u>
<b>Total Cash and Investments</b>	<u><b>316,986</b></u>
<b>Fiduciary Fund - Pension Benefits Trust:</b>	
Investments	<u>42,570</u>
<b>Total Cash and Investments</b>	<u><b>\$ 359,556</b></u>

Cash and investments as of June 30, 2014 consist of the following (in thousands):

<b>District Cash and Investments:</b>	
Cash on hand	\$ 3
Deposits with financial institutions	3,169
Investments	313,814
<b>Total Cash and Investments</b>	<u><b>316,986</b></u>
<b>Fiduciary Fund - Pension Benefits Trust:</b>	
Investments	<u>42,570</u>
<b>Total Cash and Investments</b>	<u><b>\$ 359,556</b></u>

Investments-Swap Collateral funds are held in separate trust accounts and earn the Federal Funds Effective Rate which was 0.09% as of June 30, 2014.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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.

<u>Authorized Investment Type</u>	<u>Maximum Maturity<sup>(1)</sup></u>	<u>Maximum Percentage of Portfolio</u>	<u>Maximum Investment in One Issuer</u>
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, 2014  
(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. On a quarterly basis, 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, 2014  
(Continued)

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

**Pension Benefits Trust (The 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, 2014  
(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 District's 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>	<u>36 Months Or More</u>
Federal Agency Securities <sup>(1)</sup>	\$ 191,943	\$ 24,999	\$ 166,944	\$ -
Local Agency Investment Fund	111,027	111,027	-	-
Treasury Equivalents <sup>(2)</sup>	9,721	-	9,721	-
Municipal Bonds - Installment Sale	1,123	-	-	1,123
Total	<u>\$ 313,814</u>	<u>\$ 136,026</u>	<u>\$ 176,665</u>	<u>\$ 1,123</u>

**Pension Benefits Trust Fund:**

<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 <sup>(3)</sup>	\$ 32,370	\$ -	\$ -	\$ -	\$ 32,370
Mutual Funds - Fixed Income Bonds	10,172	1,215	1,964	6,993	-
Mutual Funds - Money Market	28	28	-	-	-
Total	<u>\$ 42,570</u>	<u>\$ 1,243</u>	<u>\$ 1,964</u>	<u>\$ 6,993</u>	<u>\$ 32,370</u>

<sup>(1)</sup>Includes \$2.50 million of callable step-up notes issued by Federal Home Loan Mortgage Corp.

<sup>(2)</sup>Treasury Equivalents represent invested swap collateral earning the Effective Federal Funds Rate of interest which was 0.09% as of June 30, 2014.

<sup>(3)</sup>Equity securities are not subject to interest rate risk.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

**Disclosures Relating to Credit Risk**

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the actual rating as of year-end for each investment type (in thousands):

**District Cash and Investments:**

<u>Investment Type</u>	<u>Rating as of Year End</u>		
	<u>Amount</u>	<u>Between AA- and AA+</u>	<u>Not Rated</u>
Federal Agency Securities	\$ 191,943	\$ 166,944	\$ 24,999
Local Agency Investment Fund	111,027	-	111,027
Treasury Equivalents	9,721	-	9,721
Municipal Bonds - Installment Sale	1,123	-	1,123
Total	<u>\$ 313,814</u>	<u>\$ 166,944</u>	<u>\$ 146,870</u>

**Pension Benefits Trust Fund:**

<u>Investment Type</u>	<u>Amount</u>
Mutual Funds - Equities	\$ 32,370 <sup>(1)</sup>
Mutual Funds - Fixed Income Bonds	10,172 <sup>(2)</sup>
Mutual Funds - Money Market	28 <sup>(3)</sup>
Total	<u>\$ 42,570</u>

<sup>(1)</sup>Equity Mutual Funds as of 6/30/2014 include two "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 one diversified portfolio of fixed income securities. As of 6/30/2014, 82.1% of the holdings were rated A-AAA, 10.7% of the holdings were rated B-BBB, and 7.2% of the holdings were rated below B or Not Rated.

<sup>(3)</sup>The Money Market Mutual Fund is rated AAA by Standard & Poors, 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, 2014  
(Continued)

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

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

In lieu of issuing third-party debt to fund its share of capital for the Baker WTP, El Toro Water District issued an instrument of indebtedness in the form of an installment sale agreement that the District has purchased as an investment. The District's primary purpose for entering into this agreement was to obtain a specified rate of return over the term of the agreement. The fixed interest rate of 4.57% 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. 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.

**District Concentration of Credit Risk**

The investment policy of the District contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total District investments are as follows (in thousands):

**District Cash and Investments:**

<u>Issuer</u>	<u>Investment Type</u>	<u>Amount</u>
FHLB	Federal Agency Securities	\$ 62,431
FFCB	Federal Agency Securities	44,973
FHLMC	Federal Agency Securities	44,601
FNMA	Federal Agency Securities	39,938
	Total	<u>\$ 191,943</u>

**Pension Benefits Trust Concentration of Credit Risk**

**Pension Benefits Trust Fund:**

<u>Fund Name</u>	<u>Amount</u>
Fidelity Spartan International Index Advantage Fund	\$ 10,748
Vanguard Institutional Index I	21,622
Metropolitan West Total Bond Fund	10,172
	Total
	<u>\$42,542</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

**(3) Interest Rate Swap Agreements**

In September 2003, the District's Board of Directors approved a policy regarding the use of interest rate swap transactions. The policy provides that interest rate swap transactions will be designed to enhance the relationship between risk and return with respect to an investment or a program of investments entered into by the District; and/or to reduce the amount or duration of payment, rate, spread, or similar risk; and/or result in a lower cost of borrowing when used in combination with bonds or other indebtedness of the District. Pursuant to the policy, the Board of Directors authorizes general parameters for interest rate swap transactions while the Finance and Personnel Committee structures specific transactions within the Board-authorized parameters. The Treasurer, with the concurrence of the Chairman of the Finance and Personnel Committee, is authorized to enter into interest rate swap transactions that are within all authorized parameters.

The International Swaps and Derivatives Association, Inc. (ISDA) Master Agreement, including the schedule and credit support annex, is used as the form of contract with interest rate swap counterparties. The District is compliant with all recently enacted 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, 2014, the notional amount and fair value balance of the District's interest rate swaps is \$130.0 million and \$(36.1) million, respectively. For the year ended June 30, 2014, the increase in fair market value of the fixed payer interest rate swaps was \$1.4 million.

The fair value of the swap agreements at June 30, 2014 is calculated using a zero-coupon method. 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. 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, 2014, along with the credit rating of the associated counterparty.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

Current Year Active Interest Rate Swaps (in thousands):

Type	Objective	Notional Amount	Effective Date	Maturity Date	Terms	Counterparty Rating
Fixed Payer	Hedge of changes in cash flows on pool of variable rate debt issues	\$ 20,000	6/04/06	6/04/19	Pay 6.200%; receive 1-Mo. LIBOR	A2/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	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	A2/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	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	A2/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, 2014, 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 \$8.5 million, and the mark-to-market value of the total interest rate swaps with Merrill Lynch Capital Services, Inc. as counterparty exceeded the threshold amount requiring a collateral deposit in the amount of \$1.2 million. The collateral funds are held in separate trust accounts and earn interest at the Federal Funds Effective Rate (0.09% as of June 30, 2014). Swap collateral funds totaling \$9.7 million are included as non-current Investment-Swap Collateral on the Statement of Net Position as of June 30, 2014.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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 A2/A/A (62% of net exposure to credit risk) and A/A (38% of net exposure to credit risk) as of June 30, 2014.

*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, 2014, other than the collateral posted as a result of the mark-to-market valuations at June 30, 2014.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

**(4) Inventories**

Inventories consist of available water in storage and materials and supplies in the District's warehouse facility. As of June 30, 2014, the District had 2,052 acre-feet of untreated water stored in the Irvine Lake in the amount of \$1.2 million. In addition, the District had 22,326 acre-feet of banked water in various water bank facilities in the amount of \$0.8 million. Inventories at June 30, 2014 consisted of the following (in thousands):

Water in storage	\$ 2,031
Materials and supplies	<u>1,016</u>
Total	<u>\$ 3,047</u>

**(5) Capital Assets**

Capital Asset activity for the year ended June 30, 2014 is as follows (in thousands):

	Balance at June 30, 2013	Additions	Deletions	Balance at June 30, 2014
Capital assets:				
Land leasehold	\$ 4,860	\$ -	\$ -	\$ 4,860
Buildings and structures	616,944	19,642	(8,070)	628,516
Transmissions and distributions	936,724	40,930	(285)	977,369
Machinery and equipment	252,118	8,850	(3,290)	257,678
Sub-total	1,810,646	69,422	(11,645)	1,868,423
Less: Accumulated depreciation:				
Land leasehold	(777)	(97)		(874)
Buildings and structures	(210,922)	(15,598)	842	(225,678)
Transmissions and distributions	(287,282)	(21,165)	162	(308,285)
Machinery and equipment	(98,793)	(9,949)	1,682	(107,060)
Sub-total	(597,774)	(46,809)	2,686	(641,897)
Total depreciable capital assets, net	1,212,872	22,613	(8,959)	1,226,526
Capital assets, non-depreciable:				
Land and water rights	85,569	693	(10)	86,252
Construction in progress	207,613	104,702	(57,568)	254,747
Total capital assets, net	\$ 1,506,054	\$ 128,008	\$ (66,537)	\$ 1,567,525

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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, 2014 is as follows (in thousands):

Administrative and general expenses, capitalized	\$ 9,755
Interest expenses, capitalized*	<u>3,950</u>
	<u>\$ 13,705</u>

\* The total amount of interest cost incurred for the year ended June 30, 2014 (both the amounts expensed and the amounts capitalized) was \$36,952, including \$17,166 of interest on JPA Bonds.

**(7) Real Estate Investments**

Real estate investments are as follows at June 30, 2014 (in thousands):

Wood Canyon Villas, L.P.	\$ 6,000
Sycamore Canyon Apartments	18,950
230 Commerce Office Property	3,885
Waterworks Way Business Park	7,976
Sand Canyon Professional Center	<u>8,801</u>
Total	<u>\$ 45,612</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).

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 93% occupied at June 30, 2014. 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, 2014. In addition, the Sycamore Canyon Apartments completed a renovation project in 2007 for a total cost of \$9.6 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

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 90% occupied as of June 30, 2014.

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, 2014 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, 2014.

Net real estate income as of June 30, 2014 was as follows (in thousands):

Real estate income	\$ 11,899
Real estate expense	(4,139)
Depreciation	<u>(2,000)</u>
	<u>\$ 5,760</u>

**(8) Allen-McColloch Pipeline**

For several years prior to 1995, the District was a part owner and participant in a 27-mile pipeline through which it received a portion of its water capacity from Metropolitan Water District (MWD). During fiscal year 1995, the District and the other participants sold the pipeline to MWD. In accordance with the sale agreement, the District will receive a total of \$45.6 million over 37 years, representing the District's ownership of approximately 42% of the pipeline project. In addition to the initial cash payment, the District has received \$45.6 million in payments under the agreement of which \$2.5 million was received for the fiscal year ended June 30, 2014. The District's receivable at June 30, 2014 of \$4,000 is presented net of deferred imputed interest.

The sales agreement provides for the District to continue to have rights to the flow capacity from MWD, but MWD is not obligated to deliver an actual flow or quantity of water. The agreement also provides for MWD to forfeit ownership of the pipeline to the former owners (including the District) should it not make all required future payments.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

(9) **Long-Term Liabilities**

Long-term liability activity for the year ended June 30, 2014 is as follows (in thousands):

	Balance June 30, 2013	Additions	Deletions	Balance June 30, 2014	Due within One Year	Due in more than one Year
<b>General Obligation Bonds:</b>						
1989 C Consolidated	\$2,600	\$ -	\$(2,600)	\$ -	\$ -	\$ -
1991 Consolidated	5,300	-	(5,300)	-	-	-
1993 C Consolidated	37,500	-	(1,400)	36,100	1,500	34,600
1995 Consolidated	18,100	-	(1,900)	16,200	2,000	14,200
2008A Refunding	56,400	-	(1,200)	55,200	1,200	54,000
2009A Consolidated	72,500	-	(2,500)	70,000	2,500	67,500
2009B Consolidated	72,500	-	(2,500)	70,000	2,500	67,500
2010B BABS	175,000	-	-	175,000	-	175,000
2011A-1 Refunding	57,420	-	(1,380)	56,040	1,440	54,600
2011A-2 Refunding	38,280	-	(920)	37,360	960	36,400
Total General Obligation Bonds	<u>535,600</u>	<u>-</u>	<u>(19,700)</u>	<u>515,900</u>	<u>12,100</u>	<u>503,800</u>
<b>JPA Revenue Bonds*:</b>						
2010 Taxable Refunding No. 2	373,625	-	(373,625)	-	-	-
2012 Taxable Refunding No. 1	243,505	-	(243,505)	-	-	-
Unamortized Contribution	1,414	-	(1,414)	-	-	-
Total JPA Revenue Bonds	<u>618,544</u>	<u>-</u>	<u>(618,544)</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Certificates of Participation:</b>						
2010 Refunding Certificates	72,490	-	(5,300)	67,190	5,910	61,280
Unamortized Premium	6,734	-	(359)	6,375	361	6,014
Total Certificates	<u>79,224</u>	<u>-</u>	<u>(5,659)</u>	<u>73,565</u>	<u>6,271</u>	<u>67,294</u>
Notes Payable	<u>2,240</u>	<u>-</u>	<u>(256)</u>	<u>1,984</u>	<u>257</u>	<u>1,727</u>
<b>Other Long-Term Liabilities:</b>						
Compensated Absences	3,284	3,376	(3,052)	3,608	1,442	2,166
Other Long-Term Liabilities	812	2,560	(2,541)	831	85	746
Total Other Long-Term Liabilities	<u>4,096</u>	<u>5,936</u>	<u>(5,593)</u>	<u>4,439</u>	<u>1,527</u>	<u>2,912</u>
<b>Total Long-Term Liabilities</b>	<u><b>\$1,239,704</b></u>	<u><b>\$5,936</b></u>	<u><b>\$(649,752)</b></u>	<u><b>\$595,888</b></u>	<u><b>\$20,155</b></u>	<u><b>\$575,733</b></u>

\*The JPA Issue #1 and Issue #2 refunding bonds and underlying investment securities matured in their entirety in FY 2013-14. Under the terms of the Joint Powers Agreement dated December 22, 1986, the JPA's existence terminated automatically on March 15, 2014, upon the retirement of all outstanding bonds of the JPA.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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	6.6%
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	3.8%

- (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, 2014 ranging from 0.03% to 0.07% 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
2015	\$12,100	\$11,759	\$7,516	\$(3,764)	\$27,611
2016	12,600	11,753	7,516	(3,764)	28,105
2017	12,900	11,747	7,516	(3,764)	28,399
2018	13,100	11,741	7,516	(3,764)	28,593
2019	13,400	11,734	7,516	(3,764)	28,886
2020-2024	64,000	58,081	16,558	(18,820)	119,819
2025-2029	82,770	56,023	15,730	(18,162)	136,361
2030-2034	107,715	49,755	-	(16,137)	141,333
2035-2039	153,915	31,405	-	(10,189)	175,131
2040-2042	43,400	1,889	-	(611)	44,678
<b>Total</b>	<b>\$515,900</b>	<b>\$255,887</b>	<b>\$69,868</b>	<b>\$(82,739)</b>	<b>\$758,916</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, 2014  
(Continued)

(9) **Long-Term Liabilities (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 7.2% under the Congressionally-mandated sequestration which began in FY 2013-14. 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
2015	\$5,910	\$3,188	\$9,098
2016	6,545	2,941	9,486
2017	7,135	2,677	9,812
2018	1,615	2,380	3,995
2019	1,795	2,299	4,094
2020-2024	11,855	9,961	21,816
2025-2029	17,885	6,432	24,317
2030-2032	14,450	1,480	15,930
Subtotal	67,190	31,358	98,548
Plus: Unamortized premium	6,375	-	6,375
Total	\$73,565	\$31,358	\$104,923

**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 \$1.2 million at June 30, 2014. 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, 2014 was \$0.8 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

(9) Long-Term Liabilities (Continued)

**Notes Payable (Continued)**

Amounts required to amortize notes payable at June 30, 2014 are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2015	\$257	\$51	\$308
2016	258	50	308
2017	260	48	308
2018	262	46	308
2019	263	45	308
2020-2024	564	70	634
2025-2026	120	3	123
Total	<u>\$1,984</u>	<u>\$313</u>	<u>\$2,297</u>

(10) Unearned Revenue

Unearned revenue at June 30, 2014 consisted of the following (in thousands):

South County Water Agencies	\$8,899
Unearned revenue, current portion	<u>525</u>
Unearned revenue, net of current portion	<u>\$8,374</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 buy capacity in the District system and reimburse the District for various new intertie facilities which ensure that up to 30 cfs of water supply is available in an emergency. 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, 2014 was \$0.5 million.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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, 2014 are summarized as follows (in thousands):

Letter of Credit	Trustee	Amount	Expiration Date
Bank of America: 2009 Series B Consolidated	U.S. Bank	\$ 70,782	July 15, 2016
Bank of New York: 1993 Consolidated	Bank of New York Mellon	36,593	June 2, 2015
Sumitomo Mitsui: 1995 Consolidated	Bank of New York Mellon	16,440	July 4, 2017
2008 Series A Refunding	Bank of New York Mellon	56,017	July 4, 2017
U.S. Bank: 2009 Series A Consolidated	U.S. Bank	70,782	July 15, 2016

**(12) Net Position**

Net position at June 30, 2014 consisted of the following (in thousands):

Net investment in capital assets:	
Property, plant and equipment, net	\$1,567,525
Less:	
Outstanding debt issued to construct capital assets:	
General obligation bonds	(515,900)
Certificates of participation	(73,565)
Notes payable	(1,984)
Add back unspent portion of debt applicable to unspent bond proceeds	<u>5,234</u>
Total net investment in capital assets	<u>981,310</u>
Restricted net position:	
Restricted for water services	187,877
Restricted for sewer services	<u>220,428</u>
Total restricted net position	<u>408,305</u>
Total net position	<u>\$1,389,615</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

The District contributes to the California Public Employees Retirement System (PERS), an agent multiple-employer public employee defined benefit pension plan. PERS provides retirement, disability benefits, and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State of California. Copies of PERS' annual financial report may be obtained from its executive office at 400 "P" Street, Sacramento, California 95814.

Benefit provisions and all other requirements are established by State statute and the District's Board of Directors. Starting July 1, 2008, participants are required to contribute up to 8% of their annual covered salary. During the fiscal year ending June 30, 2014, the District made up to 1.37% of the contributions required of District employees, while the District employees made up to 6.63% of the contribution.

In addition, the District is required to contribute an actuarially determined rate applied to annual covered payroll. The District's contribution rate for the indicated period is 16.795%. The contribution rates for the fiscal year 2014-15 and 2015-16 are 17.737% and 18.331%, respectively.

Under GASB 27, an employer reports an annual pension cost (APC) equal to the annual required contribution (ARC) plus an adjustment for the cumulative difference between the APC and the employer's actual plan contributions for the year. The cumulative difference is called the net pension obligation (NPO) (negative or positive). The ARC for the period July 1, 2013 to June 30, 2014 has been determined by an actuarial valuation of the plan as of June 30, 2011.

A summary of principal assumptions and methods used to determine the ARC is shown below.

Valuation Date	June 30, 2011
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Level Percent of Payroll
Average Remaining Period	19 Years as of the Valuation Date
Asset Valuation Method	15 Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return	7.50% (net of administrative expenses)
Projected Salary Increases	3.30% to 14.20% depending on Age, Service, and type of employment
Inflation	2.75%
Payroll Growth	3.00%
Individual Salary Growth	A merit scale varying by duration of employment coupled with an assumed annual inflation component of 2.75% and an annual production growth of 0.25%.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

Initial unfunded liabilities are amortized over a closed period that depends on the plan's date of entry into PERS. Subsequent plan amendments are amortized as a level percentage of pay over a closed 20-year period. Gains and losses that occur in the operation of the plan are amortized over a 30-year rolling period, which results in an amortization of 6% of unamortized gains and losses each year. If the plan's accrued liability exceeds the actuarial value of plan assets, the amortization period may not be lower than the payment calculated over a 30 year amortization period.

The Schedule of Funding Progress (in thousands) 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.

Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Liability (Excess Assets)	Funded Ratios	Annual Covered Payroll	UL As a % of Payroll
6/30/11	\$170,392	\$140,716	\$29,676	82.6%	\$24,379	121.7%
6/30/12	183,096	151,193	31,903	82.6%	24,203	131.8%
6/30/13	197,685	151,955*	45,730	76.9%	25,499	179.3%
6/30/13**	197,685	186,955	10,730	94.6%	25,499	42.1%

\*Beginning with the 6/30/2013 valuation, the Actuarial Value of Assets is equivalent to the Market Value of Assets. The Actuarial / Market Value of Assets does not include \$35.0 million of contributions that the District made to the Pension Benefits Trust.

\*\*Includes Pension Benefits Trust assets of \$35.0 million, significantly reducing the District's unfunded liability to \$10.7 million as of June 30, 2013. In FY 2014, the District made an additional contribution of \$2.2 million to the Pension Benefits Trust. As of June 30, 2014, the fair market value of the assets in the Pension Benefits Trust was approximately \$42.6 million, further reducing the unfunded liability by an additional \$7.6 million.

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 by establishing a Pension Benefits Trust (Pension Benefits Trust) to fund the PERS unfunded liability, providing 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 to PERS at the District's discretion. The funds held in the Pension Benefits Trust are legally protected from the claims of the general creditors of the District. Contributions to the Pension Benefits Trust and earnings on those contributions are irrevocable.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

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

In FY 2013, the District made a \$35.0 million contribution to the Pension Benefits Trust, bringing the District to a 94.6% funded ratio as of June 30, 2013. In FY 2014, the District made an additional contribution of \$2.2 million to the Pension Benefits Trust. As of June 30, 2014, the fair market value of the assets in the Pension Benefits Trust was approximately \$42.6 million, further reducing the unfunded liability by an additional \$7.6 million. The assets were invested in the Vanguard Institutional Index Fund, Fidelity Concord Spartan International Fund, Metropolitan West Total Return Bond Fund, and Federated Government Obligations Money Market Fund. Additional information on the Pension Benefits Trust's investments can be found in Note 2 of the Notes to the Basic Financial Statements.

In the Statement of Net Position as of June 30, 2014, the District has a net pension asset of \$51.9 million consisting of \$52.5 million in contributions in excess of ARC and \$0.6 million of amortization. The District's annual pension cost and net pension asset, computed in accordance with GASB 27, for the year ended June 30, 2014, were as follows (in thousands):

Annual required contribution	\$4,337
Interest on beginning pension asset	(3,761)
Adjustment to annual required contribution	<u>4,209</u>
Annual pension cost	<u>4,785</u>
Contribution made	6,574
Increase (decrease) in pension asset	<u>1,789</u>
Net pension asset, beginning of year	<u>50,148</u>
Net pension asset, end of year *	<u>\$51,937</u>

\*Includes \$37.2 million contributed to the Pension Benefits Trust.

The District's annual pension cost, the percentage of annual pension cost contributed to the plan, and the net pension asset for the fiscal year ended June 30, 2014 and the two preceding years were as follows:

Three-Year Trend Information  
Annual Pension Cost (Employer Contribution) (in thousands)

Fiscal Year	Employee Contribution (District Paid)	Employer Contribution	Total Employee Contribution (District Paid and Employer Contribution)	Annual Pension Cost (APC)	Percentage of APC Contribution	Net Pension Asset
6/30/12	\$1,025	\$4,643	\$5,668	\$4,321	107.5%	\$11,605
6/30/13	609	42,840	43,449	4,297	997.0%	50,148
6/30/14	394	6,574	6,968	4,785	137.4%	51,937

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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.
- **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. 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, 2012, the date of latest actuarial valuation:

	PEMHCA	Retiree Health Costs Reimbursement	Retiree Death Benefit Only
Retirees and beneficiaries receiving benefits	64	48	82
Terminated plan members entitled to but not yet receiving benefits	-	5	-
Active plan members	304	304	236
<b>Total</b>	<b>368</b>	<b>357</b>	<b>318</b>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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, 2014, 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	\$326,630	\$314,239	\$25,966	\$666,835
Interest on net OPEB obligation	47,922	20,507	29,326	97,755
Adjustment to annual required contribution	(69,283)	(29,648)	(42,399)	(141,330)
Annual OPEB cost (expense)	305,269	305,098	12,893	623,260
Contribution made	(99,157)	(330,620)	(12,070)	(441,847)
Increase (Decrease) in net OPEB obligation	206,112	(25,522)	823	181,413
Net OPEB obligation - beginning of year	1,198,039	512,681	733,161	2,443,881
Net OPEB obligation - end of year	<u>\$1,404,151</u>	<u>\$487,159</u>	<u>\$733,984</u>	<u>\$2,625,294</u>

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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, 2014 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	6/30/12	\$255,431	26.14%	\$979,197
	6/30/13	309,171	29.22%	1,198,039
	6/30/14	305,269	32.48%	1,404,151
Retiree Health Costs Reimbursement	6/30/12	283,049	88.07%	498,653
	6/30/13	305,348	95.41%	512,681
	6/30/14	305,098	108.37%	487,159
Retiree Death Benefit Only	6/30/12	13,224	76.56%	731,829
	6/30/13	12,917	89.68%	733,161
	6/30/14	12,893	93.62%	733,984
Total - All Plans	6/30/12	551,704	59.12%	2,209,679
	6/30/13	627,436	62.67%	2,443,881
	6/30/14	623,260	70.89%	2,625,294

**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.

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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

(14) Other Post Employment Benefits (Continued)

Funded Status and Progress (Continued)

Plans	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	1/1/09	\$ -	\$2,140	\$2,140	0.00%	\$23,733	9.0%
	1/1/11	-	2,484	2,484	0.00%	24,695	10.1%
	7/1/12	-	3,202	3,202	0.00%	24,836	12.9%
Retiree Health Costs Reimbursement							
Plan	1/1/09	-	2,357	2,357	0.00%	23,733	9.9%
	1/1/11	-	2,541	2,541	0.00%	24,695	10.3%
	7/1/12	-	3,009	3,009	0.00%	24,836	12.1%
Retiree Death Benefit Only							
Plan	1/1/09	-	402	402	0.00%	23,733	1.7%
	1/1/11	-	365	365	0.00%	24,695	1.5%
	7/1/12	-	439	439	0.00%	24,836	1.8%

**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 4.0% 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, 2014  
(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, 2014, the District's payroll covered by the plan was \$483,248. The District made no employee contributions. Employees contributed \$36,244 (7.5% of current covered payroll) for the year ended June 30, 2014.

**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 2014 is \$17,500. 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 year ended June 30, 2014, the District contributed \$598,834 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 financial statements of the District.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(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, 2014 totaled \$1.3 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, 2014, estimated at \$1.4 million, is included in Sewer Services as an operating expense.

As of June 30, 2014 \$8.2 million is being held by OCSD to meet the District's share of OCSD budget requirements and is reflected as deposits in the District's basic financial statements. An additional \$21.2 million is being held by OCSD and is reflected as due from other agency in the District's basic financial statements. These funds will be applied by OCSD as payment of operation and maintenance and CORF invoices in subsequent fiscal years, and continue to earn interest at OCSD's rate of return, for the benefit of the District.

**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.

**Irvine Ranch Water District**  
Notes to the Basic Financial Statements  
For the Fiscal Year Ended June 30, 2014  
(Continued)

**(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.

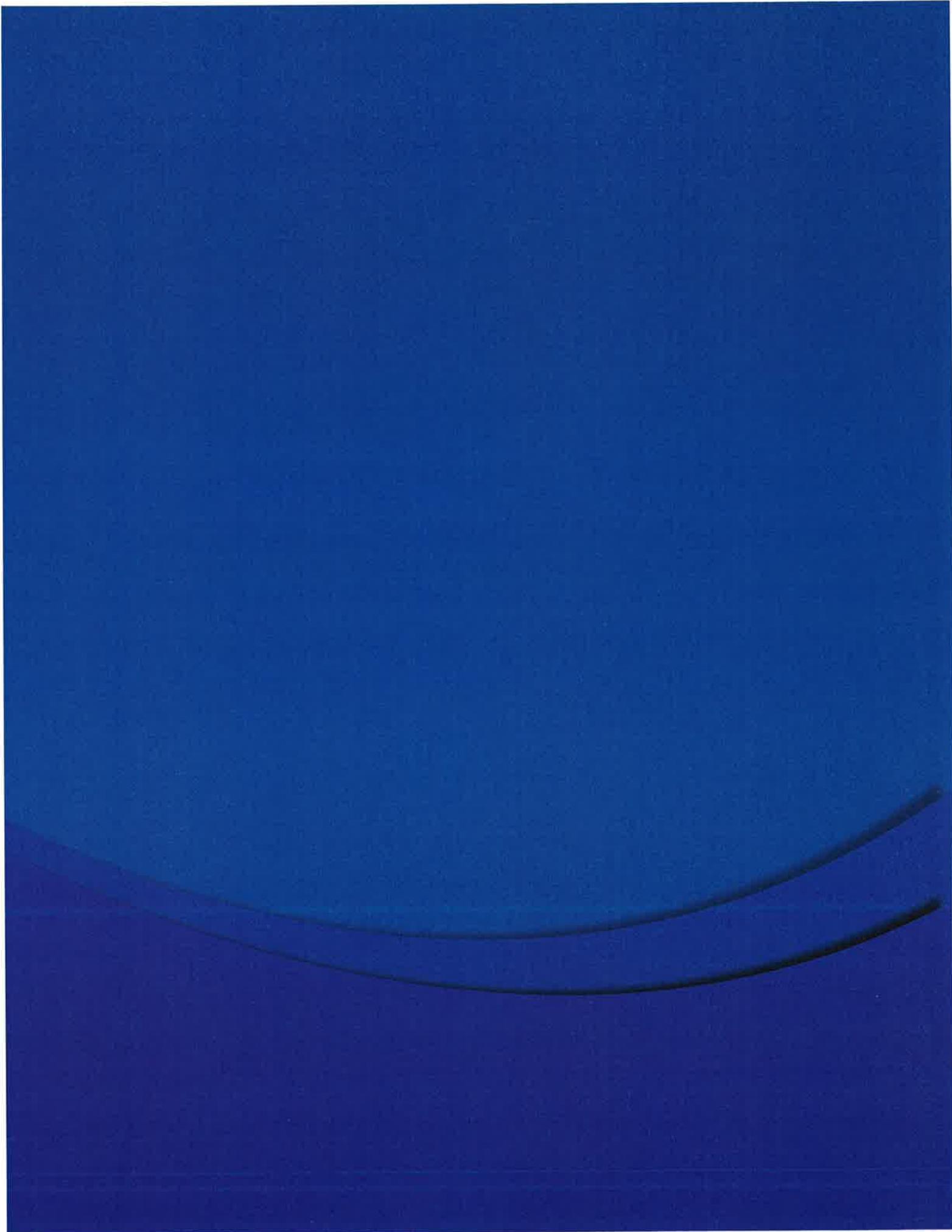
Property, Boiler and Machinery insurance is provided by the California State Association of Counties Excess Insurance Authority. Property insurance includes flood insurance, but does not include earthquake insurance. General and excess liability coverage and workers compensation insurance is provided through participation in the California State Association of Counties Excess Insurance Authority. Pollution and legal liability coverage for the Irvine Desalter Project is provided by a policy with Indian Harbor 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 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 Ended June 30	Liability Beginning of Year	Claims and Changes in Estimates	Claim Payments	Liability End of Year
2013	\$ -	\$ 1,088	\$ -	\$1,088
2014	1,088	301	(213)	1,176

# STATISTICAL SECTION



# Statistical Section

Irvine Ranch Water District  
Fiscal Year Ended June 30, 2014

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 schedule present information to help the reader assess the affordability of the District's current levels of outstanding debt and the District's ability to issues 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 – Cash Basis
- 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 Fiscal Years  
(in millions)

	<b>Fiscal Year</b>				
	2005	2006	2007	2008	2009
<b>Assets</b>					
Current & other assets	\$ 1,250.6	\$ 1,162.1	\$ 1,088.9	\$ 1,103.8	\$ 1,224.1
Capital assets	1,017.4	1,111.1	1,224.3	1,346.1	1,423.1
<b>Total assets</b>	<b>2,268.0</b>	<b>2,273.2</b>	<b>2,313.2</b>	<b>2,449.9</b>	<b>2,647.2</b>
<b>Deferred Outflow of Resources</b>					
Deferred refunding charges	-	-	-	-	-
Accumulated decrease in fair value of swaps agreements	-	-	-	-	-
<b>Total deferred outflow of resources</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Liabilities</b>					
Current and other liabilities	82.8	91.5	95.3	96.5	99.4
Long-term liabilities	1,058.6	1,068.9	1,022.2	1,074.7	1,190.8
<b>Total liabilities</b>	<b>1,141.4</b>	<b>1,160.4</b>	<b>1,117.5</b>	<b>1,171.2</b>	<b>1,290.2</b>
<b>Net Position</b>					
Net investment in capital assets	730.2	791.0	927.6	977.7	994.3
Restricted for water services	280.4	231.2	229.2	253.8	294.4
Restricted for sewer services	116.0	90.6	38.9	47.2	68.3
<b>Total net position</b>	<b>\$ 1,126.6</b>	<b>\$ 1,112.8</b>	<b>\$ 1,195.7</b>	<b>\$ 1,278.7</b>	<b>\$ 1,357.0</b>

Source: Irvine Ranch Water District Basic Financial Statements

<sup>(1)</sup> The District implemented GASB No. 65 for the fiscal year ended June 30, 2014 and restated the financial statements for the fiscal year ended June 30, 2013.

## Irvine Ranch Water District

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

	<b>Fiscal Year</b>				
	2010	2011	2012	2013 <sup>(1)</sup>	2014 <sup>(1)</sup>
<b>Assets</b>					
Current & other assets	\$ 1,172.3	\$ 1,300.0	\$ 1,167.0	\$ 1,128.2	\$ 462.7
Capital assets	1,396.6	1,430.3	1,508.8	1,506.1	1,567.5
Total assets	<u>2,568.9</u>	<u>2,730.3</u>	<u>2,675.8</u>	<u>2,634.3</u>	<u>2,030.2</u>
<b>Deferred Outflow of Resources</b>					
Deferred refunding charges	-	-	-	9.8	1.6
Accumulated decrease in fair value of swaps agreements	37.4	32.7	53.0	37.5	36.1
Total deferred outflow of resources	<u>37.4</u>	<u>32.7</u>	<u>53.0</u>	<u>47.3</u>	<u>37.7</u>
<b>Liabilities</b>					
Current and other liabilities	67.3	97.7	99.0	672.7	54.9
Long-term liabilities	1,204.3	1,323.7	1,281.8	647.7	623.4
Total liabilities	<u>1,271.6</u>	<u>1,421.4</u>	<u>1,380.8</u>	<u>1,320.4</u>	<u>678.3</u>
<b>Net Position</b>					
Net investment in capital assets	929.5	900.6	943.1	918.1	981.3
Restricted for water services	271.3	234.3	203.4	208.8	187.9
Restricted for sewer services	133.9	206.7	201.5	234.3	220.4
Total net position	<u>\$ 1,334.7</u>	<u>\$ 1,341.6</u>	<u>\$ 1,348.0</u>	<u>\$ 1,361.2</u>	<u>\$ 1,389.6</u>

Source: Irvine Ranch Water District Basic Financial Statements

<sup>(1)</sup> The District implemented GASB No. 65 for the fiscal year ended June 30, 2014 and restated the financial statements for the fiscal year ended June 30, 2013.

## Irvine Ranch Water District

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

	<b>Fiscal Year</b>				
	2005	2006	2007	2008	2009
<b>Operating Revenues</b>					
Water sales and service charges	\$ 33,105	\$ 39,256	\$ 45,138	\$ 48,516	\$ 50,940
Sewer sales and service charges	24,622	29,248	37,649	39,811	41,157
Total operating revenues	<u>57,727</u>	<u>68,504</u>	<u>82,787</u>	<u>88,327</u>	<u>92,097</u>
<b>Operating Expenses</b>					
<b>Water</b>					
Water services	26,644	31,385	34,979	39,029	42,273
General and administrative	7,308	8,625	10,267	11,257	12,536
<b>Sewer</b>					
Sewer services	20,019	19,528	24,570	27,211	28,696
General and administrative	5,571	5,556	6,328	7,259	7,712
Depreciation	26,395	27,135	28,449	31,595	34,699
Total operating expenses	<u>85,937</u>	<u>92,229</u>	<u>104,593</u>	<u>116,351</u>	<u>125,916</u>
Operating income (loss)	<u>(28,210)</u>	<u>(23,725)</u>	<u>(21,806)</u>	<u>(28,024)</u>	<u>(33,819)</u>
<b>Nonoperating Revenues (Expenses)</b>					
Property taxes	7,725	15,237	30,667	34,245	36,240
Investment income	7,695	9,115	10,768	10,674	4,365
Increase (decrease) in fair value of investments	8,864	(53,542)	(3,996)	26,976	9,837
JPA investment income	64,870	63,427	61,793	59,854	57,676
Real estate income	9,076	9,118	9,483	10,478	10,792
Other income	9,753	8,494	10,457	11,130	9,918
Interest expense	(5,092)	(9,286)	(12,762)	(8,515)	(6,061)
JPA interest expense	(61,593)	(60,060)	(58,404)	(56,616)	(54,686)
Real estate expense	(4,131)	(4,493)	(4,562)	(5,149)	(5,698)
Other expenses	(430)	(666)	(883)	(2,288)	(1,535)
Total nonoperating revenue (expenses)	<u>36,737</u>	<u>(22,656)</u>	<u>42,561</u>	<u>80,789</u>	<u>60,848</u>
Income (loss) before capital contributions	8,527	(46,381)	20,755	52,765	27,029
Contributed capital assets	27,374	32,525	52,672	29,319	32,517
Increase (decrease) in net position	<u>35,901</u>	<u>(13,856)</u>	<u>73,427</u>	<u>82,084</u>	<u>59,546</u>
Net position at beginning of year	1,090,754	1,126,655	1,112,799	1,195,761	1,278,703
SCWD Retained Earnings at 6/30/06	-	-	9,535	-	-
OPA Net Assets at 6/1/08	-	-	-	858	-
Prior period adjustments	-	-	-	-	-
Net position at end of year	<u>\$1,126,655</u>	<u>\$1,112,799</u>	<u>\$1,195,761</u>	<u>\$1,278,703</u>	<u>\$1,357,046</u>

Source: Irvine Ranch Water District Basic Financial Statements

## Irvine Ranch Water District

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

	<b>Fiscal Year</b>				
	2010	2011	2012	2013	2014
<b>Operating Revenues</b>					
Water sales and service charges	\$ 51,268	\$ 54,796	\$ 57,558	\$ 62,565	\$ 66,321
Sewer sales and service charges	45,344	45,375	49,234	53,085	58,109
Total operating revenues	<u>96,612</u>	<u>100,171</u>	<u>106,792</u>	<u>115,650</u>	<u>124,430</u>
<b>Operating Expenses</b>					
Water					
Water services	43,591	45,961	44,883	51,163	57,624
General and administrative	13,349	12,327	12,305	14,619	13,660
Sewer					
Sewer services	30,992	33,382	33,086	38,189	37,715
General and administrative	6,651	6,569	7,792	8,048	8,612
Depreciation	39,444	43,592	41,378	47,539	46,809
Total operating expenses	<u>134,027</u>	<u>141,831</u>	<u>139,444</u>	<u>159,558</u>	<u>164,420</u>
Operating income (loss)	<u>(37,415)</u>	<u>(41,660)</u>	<u>(32,652)</u>	<u>(43,908)</u>	<u>(39,990)</u>
<b>Nonoperating Revenues (Expenses)</b>					
Property taxes	38,392	38,679	38,062	41,068	42,751
Investment income	2,191	2,599	3,132	224	1,079
Increase (decrease) in fair value of investments	(7,782)	(20,172)	(23,586)	(29,180)	(16,177)
JPA investment income	55,726	53,708	51,530	49,178	29,522
Real estate income	9,701	9,719	11,039	10,789	11,899
Other income	10,706	7,987	6,141	8,323	10,974
Interest expense	(9,962)	(14,174)	(16,924)	(16,770)	(15,836)
JPA interest expense	(51,530)	(41,264)	(39,603)	(28,884)	(17,166)
Real estate expense	(6,186)	(6,004)	(6,016)	(6,047)	(6,139)
Other expenses	(1,286)	(989)	(10,713)	(6,110)	(7,163)
Total nonoperating revenue (expenses)	<u>39,970</u>	<u>30,089</u>	<u>13,062</u>	<u>22,591</u>	<u>33,744</u>
Income (loss) before capital contributions	2,555	(11,571)	(19,590)	(21,317)	(6,246)
Contributed capital assets	17,963	18,506	25,948	34,535	34,684
Increase (decrease) in net position	<u>20,518</u>	<u>6,935</u>	<u>6,358</u>	<u>13,218</u>	<u>28,438</u>
Net position at beginning of year	1,357,046	1,334,666	1,341,601	1,347,959	1,361,177
SCWD Retained Earnings at 6/30/06	-	-	-	-	-
OPA Net Assets at 6/1/08	-	-	-	-	-
Prior period adjustments	18,797	(42,898)	-	-	-
Net position at end of year	<u>\$1,334,666</u>	<u>\$1,341,601</u>	<u>\$1,347,959</u>	<u>\$1,361,177</u>	<u>\$1,389,615</u>

Source: Irvine Ranch Water District Basic Financial Statements

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

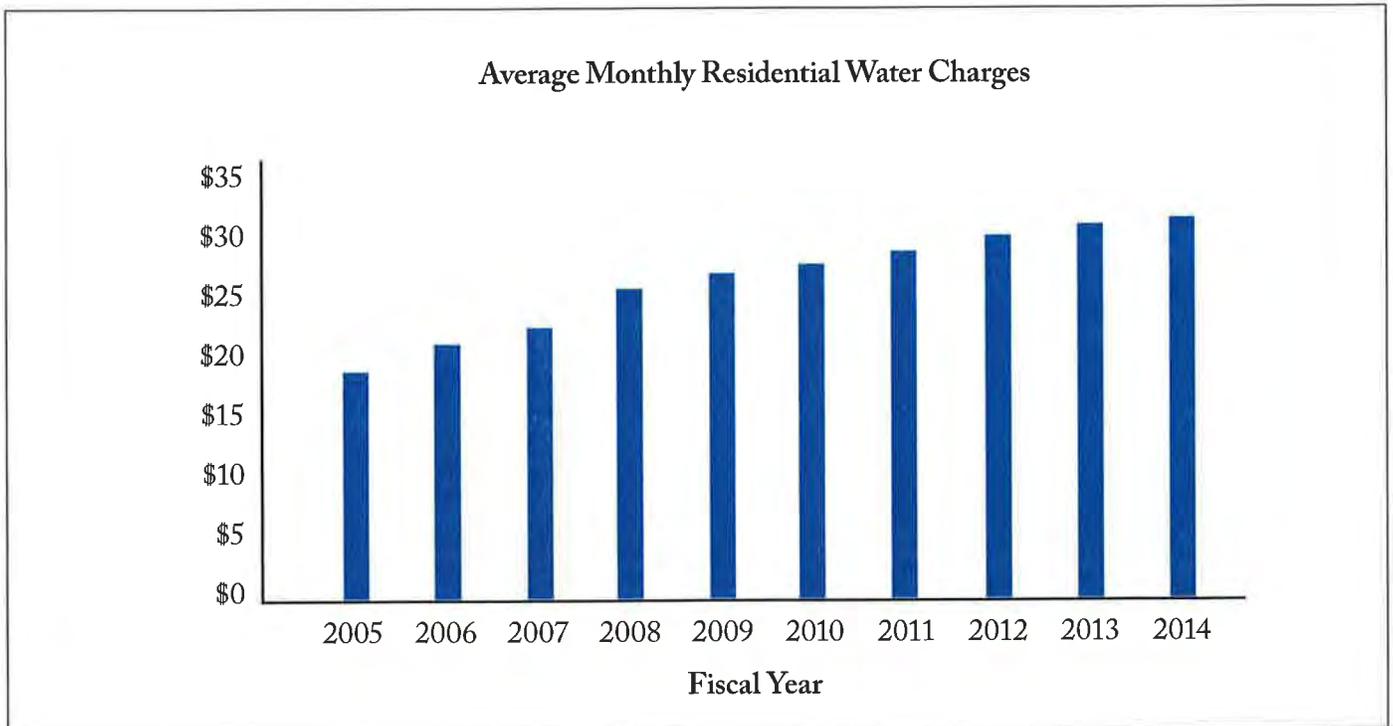
	<b>Fiscal Year</b>									
	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Residential	30,681	31,514	34,097	33,771	34,189	31,721	31,127	32,262	33,166	34,068
Commercial	7,602	8,037	8,710	8,710	8,382	7,586	7,632	8,021	8,353	8,803
Industrial	6,047	5,714	5,438	5,353	5,009	4,711	4,733	4,713	4,783	4,891
Public Authority	2,842	2,795	2,474	2,588	2,571	2,293	2,305	2,373	2,458	2,458
Construction & Temporary	489	790	696	513	133	127	174	275	378	739
Treated - Landscape Irrigation	4,953	5,322	6,249	6,039	5,789	4,712	4,252	4,741	5,316	5,671
Treated - Agricultural	1,177	1,018	1,009	820	563	210	183	229	206	202
Untreated - Agricultural	5,973	7,621	7,583	6,211	6,452	5,024	3,025	2,204	2,543	3,075
Recycled - Landscape/Agricultural	18,620	19,504	24,624	24,564	24,415	20,951	20,147	25,011	28,259	30,021
<b>Total</b>	<b>78,384</b>	<b>82,315</b>	<b>90,880</b>	<b>88,569</b>	<b>87,503</b>	<b>77,335</b>	<b>73,578</b>	<b>79,829</b>	<b>85,462</b>	<b>89,928</b>

Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
 Water Rates\*  
 For the Past Ten Fiscal Years

Year	Fixed Service Charge	Commodity Rate (per ccf)	Average monthly residential charge
2005	\$3.90	\$0.83	\$17.56
2006	5.45	0.88	20.01
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

\* 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.



Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
 Largest Water Customers<sup>(1)</sup>  
 Fiscal Year Ended June 30, 2014

<b>Customer Name</b>	<b>Total Paid</b>	<b>Percentage of Water Sales Revenues</b>
1. The Irvine Company	\$ 2,695,226	4.06%
2. University of CA Irvine	1,243,724	1.88%
3. Jazz Semiconductor	765,756	1.15%
4. B Braun Medical Inc	603,321	0.91%
5. Woodbridge Village Assn	422,656	0.64%
6. City of Irvine	360,461	0.54%
7. Heritage Fields, LLC	296,884	0.45%
8. Allergan Sales, LLC	275,341	0.42%
9. ERP Operating LP	238,963	0.36%
10. City of Lake Forest	236,595	0.36%
<b>Total</b>	<b>\$ 7,138,927</b>	<b>10.77%</b>

Source: Irvine Ranch Water District

Note:

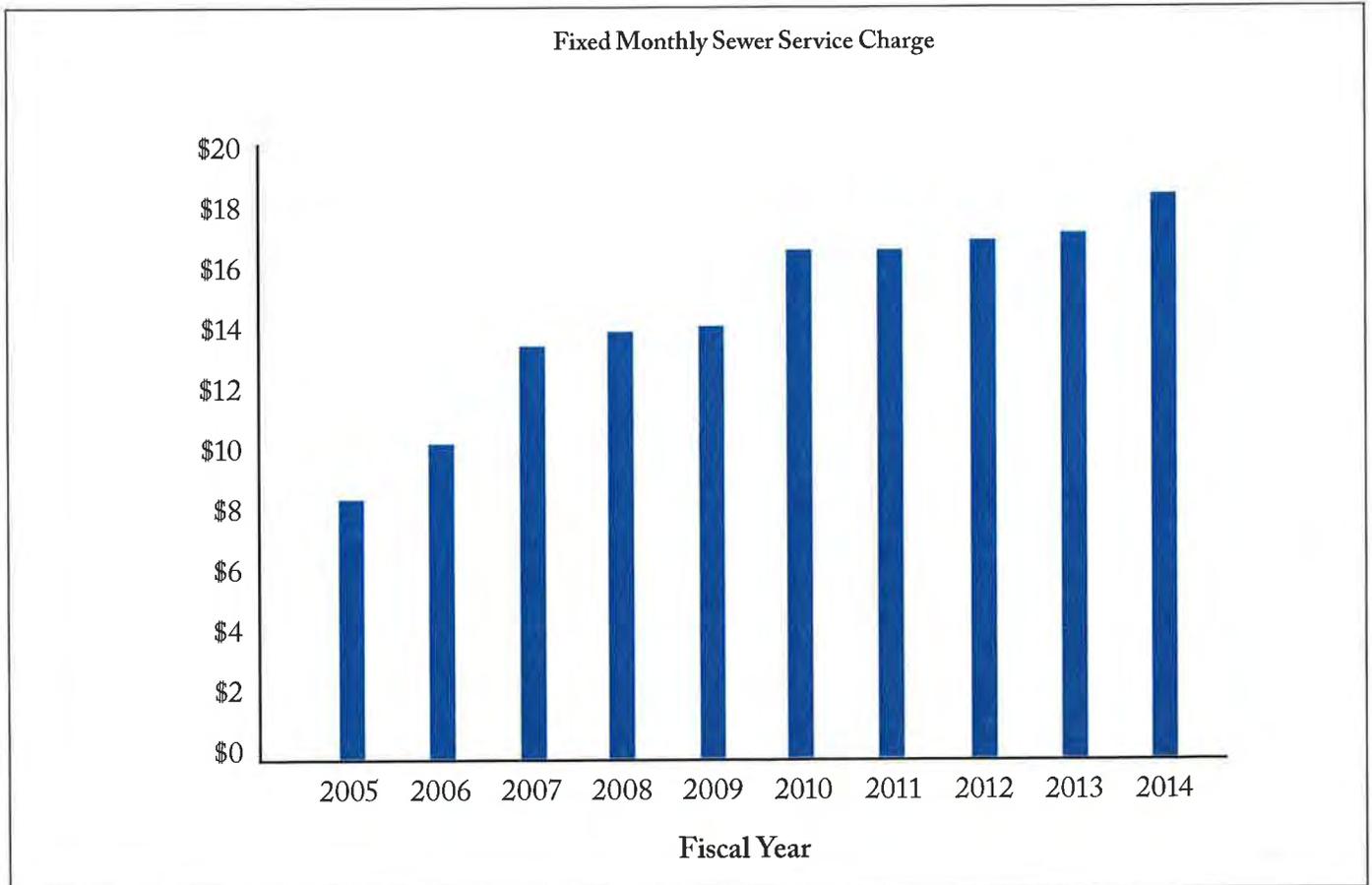
<sup>(1)</sup> Data for the largest water customers for the period nine years prior to the current period is not available.

**Irvine Ranch Water District**  
 Sewer Rates  
 For the Past Ten Fiscal Years

Fiscal Year	Fixed Monthly Service Charge
2005	\$8.35
2006	\$10.00
2007	\$13.05
2008	\$13.65
2009	\$13.80
2010	\$16.60
2011	\$16.65
2012	\$16.90
2013	\$17.20
2014	\$18.40

Fixed monthly service charge for 2004-2006 are for the Irvine Ranch rate area only (excluding Los Alisos). For 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.



Source: Irvine Ranch Water District

## Irvine Ranch Water District

Largest Sewer Customers<sup>(1)</sup>  
Fiscal Year Ended June 30, 2014

<b>Customer Name</b>	<b>Total Paid</b>	<b>Percentage of Water Sales Revenues</b>
1. The Irvine Company	\$ 3,096,888	5.33%
2. City of Irvine	2,135,707	3.68%
3. University of CA Irvine	1,684,231	2.90%
4. Caltrans District 12	918,254	1.58%
5. B Braun	543,502	0.94%
6. Irvine Unified School District	535,744	0.92%
7. Heritage Fields, LLC	373,192	0.64%
8. Los Olivos Apartments	278,100	0.48%
9. Royalty Carpet Mills	316,847	0.55%
10. Allergan Sales, LLC	312,114	0.54%
<b>Total</b>	<b>\$ 10,194,579</b>	<b>17.54%</b>

Source: Irvine Ranch Water District

Note:

<sup>(1)</sup> Data for the largest sewer customers for the period nine years prior to the current period is not available.

**Irvine Ranch Water District**  
 Ad Valorem Property Tax Rates<sup>(3)</sup>  
 For the Past Ten Fiscal Years

Improvement District	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
112	\$ N/A	\$0.07920	\$0.07920	\$0.03168	\$0.03168	\$0.03168				
113 <sup>(1)</sup>	N/A	N/A	0.01920	0.01920	0.01920	0.01980	0.01980	0.05940	0.05940	0.05940
120	0.00001	0.01168	0.01168	0.01298	0.01298	0.01311	0.00001	0.00000	0.00000	0.00000
121	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.01311	0.01311	0.01311	0.01311
130	0.00001	0.00001	0.00001	0.00500	0.00500	0.00680	0.00680	0.00680	0.00680	0.00680
135 <sup>(2)</sup>	0.00001	0.00001	0.00842	0.00842	0.00842	0.00842	0.00842	0.00421	0.00421	0.00421
140	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.01000	0.01000	0.01000
150	0.00001	0.00001	0.00001	0.00780	0.00780	0.00990	0.00990	0.01980	0.01980	0.01980
160	0.00001	0.01168	0.01168	0.01648	0.01648	0.01758	0.00001	0.00000	0.00000	0.00000
161	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.01758	0.01758	0.01758	0.01758
182	0.00001	0.00808	0.00808	0.01300	0.01300	0.01350	0.01350	0.02700	0.02700	0.02700
184	N/A	N/A	0.00001	0.00001	0.00001	0.00001	0.00001	0.01350	0.01350	0.01350
186	0.00001	0.02051	0.02051	0.02700	0.02700	0.03191	0.03191	0.04787	0.04787	0.04787
188	0.00001	0.02051	0.02051	0.02700	0.02700	0.03590	0.03590	0.21540	0.21540	0.21540
190	0.00001	0.00001	0.00001	0.00500	0.00500	N/A	N/A	N/A	N/A	N/A
210	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00000
212	N/A	N/A	N/A	N/A	N/A	0.12420	0.12420	0.07452	0.07452	0.07452
213 <sup>(1)</sup>	N/A	N/A	0.14093	0.14093	0.14093	0.14533	0.14533	0.08720	0.08720	0.08720
220	0.00001	0.01000	0.01000	0.01400	0.01400	0.01800	0.00001	0.00000	0.00000	0.00000
221	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.01800	0.01700	0.01700	0.01700
230	0.00001	0.01995	0.01995	0.02000	0.02000	0.02200	0.02200	0.02200	0.02200	0.02200
235 <sup>(2)</sup>	0.00001	0.00001	0.00532	0.00532	0.00532	0.00532	0.00532	0.00266	0.00266	0.00266
240	0.00001	0.02168	0.02168	0.02699	0.02699	0.03140	0.03140	0.02140	0.02140	0.02140
250	0.00001	0.02602	0.03199	0.03200	0.03200	0.03600	0.03600	0.03600	0.03600	0.03600
252	N/A	N/A	N/A	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
260	N/A	N/A	0.02030	0.02330	0.02330	0.02830	0.00001	0.00000	0.00000	0.00000
261	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.02830	0.02830	0.02830	0.02830
282	0.00001	0.01280	0.01280	0.01400	0.01400	0.01890	0.01890	0.01890	0.01890	0.01890
284	N/A	N/A	0.00001	0.02699	0.02699	0.03239	0.03239	0.03239	0.03239	0.03239
286	N/A	N/A	N/A	N/A	N/A	N/A	0.00001	0.00201	0.00201	0.00201
288	N/A	N/A	N/A	N/A	N/A	N/A	0.00001	0.01000	0.01000	0.01000
290	0.00001	0.01995	0.01995	0.02000	0.02000	N/A	N/A	N/A	N/A	N/A

Source: Irvine Ranch Water District

Note:

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

<sup>(2)</sup> The Los Alisos Water District and the District consolidated on December 31, 2000 adding Improvement Districts 135 and 235.

<sup>(3)</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)

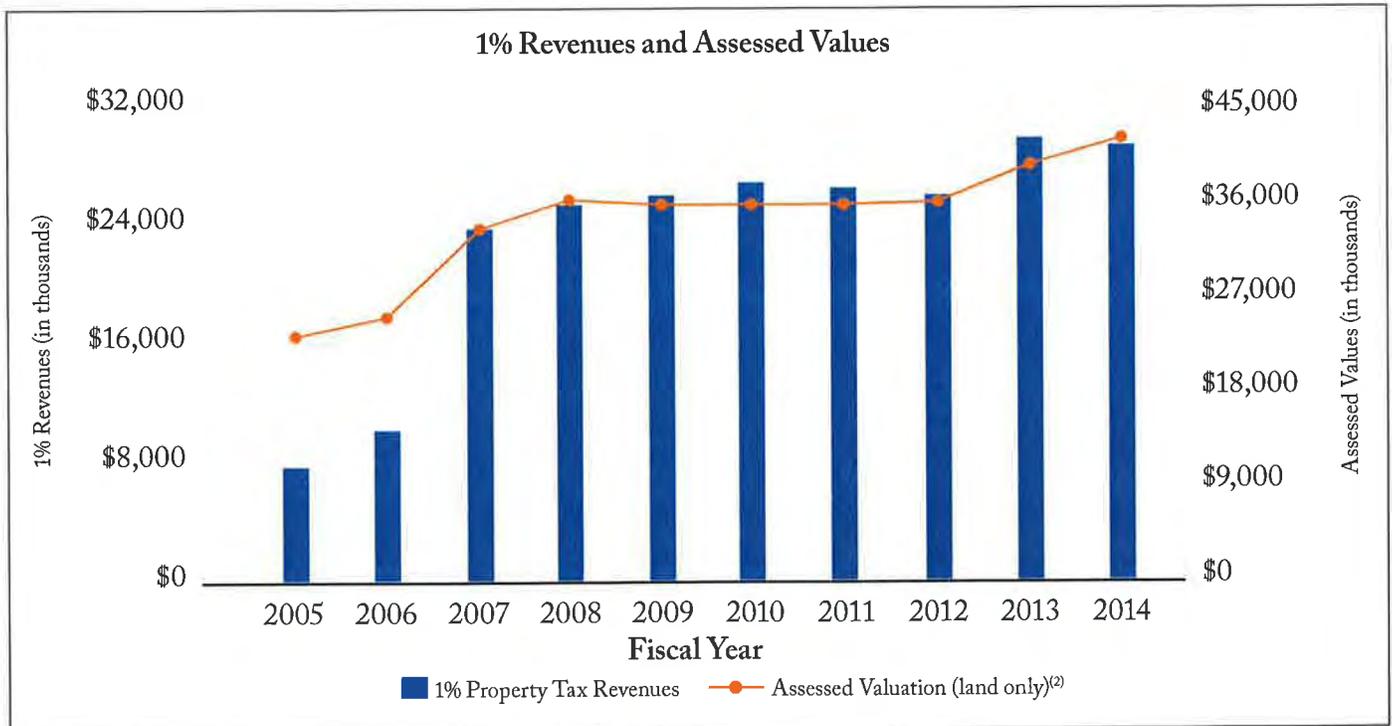
Fiscal Year Ending	Assessed Valuation (land only) <sup>(2)</sup>	1 % Property Tax Revenue
2005 <sup>(1)</sup>	\$ 22,101,916	\$ 7,335
2006	25,869,944	10,177
2007	31,378,053	22,444
2008	35,540,296	24,730
2009	35,298,830	26,283
2010	34,818,153	27,150 <sup>(3)</sup>
2011	35,008,276	26,989
2012	35,661,242	26,478
2013	37,809,660	29,265
2014	42,205,844	29,445

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

Note:

- (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<sup>(1)</sup>  
 Fiscal Year Ended June 30, 2014

**Direct Rate:**

Irvine Ranch Water District I.D. No. 1	-
Irvine Ranch Water District I.D. No. 2	-
Irvine Ranch Water District I.D. No. 3	-
Irvine Ranch Water District I.D. No. 102	-
Irvine Ranch Water District I.D. No. 103	-
Irvine Ranch Water District I.D. No. 105	0.01980
Irvine Ranch Water District I.D. No. 106	-
Irvine Ranch Water District I.D. No. 109	-
Irvine Ranch Water District I.D. No. 112	0.03168
Irvine Ranch Water District I.D. No. 113	0.05940
Irvine Ranch Water District I.D. No. 121	0.01311
Irvine Ranch Water District I.D. No. 130	0.00680
Irvine Ranch Water District I.D. No. 140	0.01000
Irvine Ranch Water District I.D. No. 161	0.01758
Irvine Ranch Water District I.D. No. 182	0.02700
Irvine Ranch Water District I.D. No. 184	0.01350
Irvine Ranch Water District I.D. No. 186	0.04787
Irvine Ranch Water District I.D. No. 188	0.21540
Irvine Ranch Water District I.D. No. 206	-
Irvine Ranch Water District I.D. No. 212	0.07452
Irvine Ranch Water District I.D. No. 213	0.08720
Irvine Ranch Water District I.D. No. 221	0.01700
Irvine Ranch Water District I.D. No. 230	0.02200
Irvine Ranch Water District I.D. No. 240	0.02140
Irvine Ranch Water District I.D. No. 250	0.03600
Irvine Ranch Water District I.D. No. 252	0.00001
Irvine Ranch Water District I.D. No. 261	0.02830
Irvine Ranch Water District I.D. No. 282	0.01890
Irvine Ranch Water District I.D. No. 284	0.03239
Irvine Ranch Water District I.D. No. 286	0.00201
Irvine Ranch Water District I.D. No. 288	0.01000
Irvine Ranch Water District I.D. No. 290	-
135 (Formerly Los Alisos Water District)	0.00421
235 (Formerly Los Alisos Water District)	0.00266

**Overlapping Rates:**

**School Districts:**

Coast Community College District	0.02899
Rancho Santiago Community College District	0.03334
Laguna Beach Unified School District	0.01567
Newport Mesa Unified School District	0.01860
Saddleback Valley Unified School District	0.03207
Santa Ana Unified School District	0.07359
Tustin Unified School District SFID 2002-1	0.04353
Tustin Unified School District SFID 2008-1	0.02953
Tustin Unified School District SFID 2012-1	0.01606

**Cities**

Laguna Beach	0.00000
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Source: California Municipal Statistics, Inc.

Note:

<sup>(1)</sup> The new tax rates for the consolidated improvement district are effective July 1, 2014.

## Irvine Ranch Water District

Principal Property Taxpayers  
Fiscal Year Ended June 30, 2014

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	\$ 5,993,824,698	12.32%
Irvine Apartment Communities	Real Estate	866,292,939	1.78%
Heritage Fields El Toro	Real Estate Developer	607,439,224	1.25%
B Braun Medical Inc.	Bio-Medical Manufacturing	361,167,927	0.74%
LBA IV-PPI LLC	Real Estate Investment and Management	352,117,356	0.72%
Allergan	Pharmaceutical (R&D/Marketing)	300,899,487	0.62%
John Hancock Life	Insurance	280,438,817	0.58%
Lennar Corporation	Developer/Real Estate	261,479,544	0.54%
Lakeshore Properties LLC	Real Estate	188,071,289	0.39%
Park Spectrum	Real Estate	180,377,381	0.37%
		<b>\$ 9,392,108,662</b>	<b>19.31%</b>

Source: City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2013)

Data was not yet available for FY2013/14 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 Ended	Levied During Fiscal Year		Collected During Fiscal Year	
	1 Percent <sup>(1)</sup>	General <sup>(2)</sup>	1 Percent	General <sup>(3)</sup>
2005	\$7,750,200	\$3,151	\$7,404,859	\$448,835
2006	7,965,300	3,081,122	8,755,621	5,038,833
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
<b>Total</b>	<b>\$ 215,494,200</b>	<b>\$ 80,950,569</b>	<b>\$ 218,653,153</b>	<b>\$ 91,439,171</b>

Source: County of Orange Tax Ledger

Note:

<sup>(1)</sup> The estimated levy for one percent revenue is generated internally and it is based on prior year receipts and developer growth projections.

<sup>(2)</sup> The estimated levy for G.O. tax receipts is based on the county's assessed value projection multiplied by the tax rate assessed within each improvement district.

<sup>(3)</sup> The General column for Collected tax receipts includes an unbudgeted utility tax revenue from improvement districts 190/290 that adds approximately \$400K per year.

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

Fiscal Year Ended	Percentage Collected		Amount of Levy Collected in Subsequent Periods	
	1 Percent	General	1 Percent	General
2005	95.54%	14244.20%	\$1,129,009	\$27,285
2006	109.92%	163.54%	1,441,127	149,874
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
Total			\$ 10,547,455	\$ 4,430,056

Source: County of Orange Tax Ledger

Note:

- (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

Fiscal Year	Total Service Connections <sup>(2)</sup>	General Obligation Bonds <sup>(3)</sup>	GO Debt per Connection	Certificates of Participation	COPS Debt per Connection
2005	172,548	\$187,396,610	\$1,086	\$116,600,000	\$676
2006	177,325	224,585,230	1,267	114,200,000	644
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

Source: Irvine Ranch Water District

Note:

<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 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
2005	\$793,611,146	\$4,599	\$4,158,000	\$24	\$1,101,765,756	\$6,385
2006	772,359,906	4,356	6,650,000	38	1,117,795,136	6,304
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

Source: Irvine Ranch Water District

Note:

<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, 2014

Improvement District	General Obligation Bonds Authorized	General Obligation Bonds Issued	Remaining Unissued General Obligation Bonds Authorized	Amount Outstanding as of June 30, 2014
112	\$28,512,300	\$5,740,000	\$22,772,300	\$5,562,000
113	25,769,500	14,800,000	10,969,500	14,150,000
125	735,246,000	413,156,400	322,089,600	192,075,000
153	237,300,000	-	237,300,000	-
154	4,839,000	-	4,839,000	-
188	8,174,000	4,437,000	3,737,000	1,468,000
<b>Total</b>	<b>\$1,039,840,800</b>	<b>\$438,133,400</b>	<b>\$601,707,400</b>	<b>\$213,255,000</b>
210	\$2,000,000	\$2,000,000	\$ -	\$ -
212	108,712,000	15,700,000	93,012,000	15,218,000
213	87,648,000	23,800,000	63,848,000	22,074,000
225	856,643,000	449,748,000	406,895,000	240,995,000
240	117,273,000	48,476,500	68,796,500	24,078,000
253	122,283,000	-	122,283,000	-
288	8,977,000	300,000	8,677,000	280,000
<b>Total</b>	<b>\$1,303,536,000</b>	<b>\$540,024,500</b>	<b>\$763,511,500</b>	<b>\$302,645,000</b>
	<b>\$2,343,376,800</b>	<b>\$978,157,900</b>	<b>\$1,365,218,900</b>	<b>\$515,900,000</b>

Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
Ratio of General Obligation Debt to Assessed Values(1)  
For the Past Ten Fiscal Years

Fiscal Year Ending	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation	Fiscal Year Ending	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 112</b>				<b>Improvement District 212</b>			
2005	\$ -	\$ -	n/a	2005	\$ -	\$ -	n/a
2006	-	-	n/a	2006	-	-	n/a
2007	-	-	n/a	2007	-	-	n/a
2008	-	-	n/a	2008	-	-	n/a
2009	500,354,220	2,745,000	0.00548611	2009	500,354,220	7,305,000	0.01459966
2010	521,318,307	2,745,000	0.00526550	2010	521,318,307	7,305,000	0.01401255
2011	539,618,060	5,745,000	0.01064642	2011	539,618,060	15,705,000	0.02910392
2012	504,820,526	5,745,000	0.01138028	2012	504,820,526	15,705,000	0.03111007
2013	511,871,892	5,653,500	0.01104476	2013	511,871,892	15,461,500	0.03020580
2014	780,606,904	5,562,000	0.00712523	2014	780,606,904	15,218,000	0.01949509
<b>Improvement District 113</b>				<b>Improvement District 213</b>			
2005	\$ -	\$ -	n/a	2005	\$ -	\$ -	n/a
2006	-	-	n/a	2006	-	-	n/a
2007	-	-	n/a	2007	-	-	n/a
2008	691,298,772	1,505,375	0.00217760	2008	691,298,772	11,139,775	0.01611427
2009	609,156,504	4,505,375	0.00739609	2009	609,156,504	17,544,775	0.02880175
2010	651,917,180	4,505,375	0.00691096	2010	651,917,180	17,544,775	0.02691258
2011	553,458,157	9,770,000	0.01765264	2011	553,458,157	17,283,000	0.03122729
2012	536,369,090	15,794,500	0.02944707	2012	536,369,090	23,418,645	0.04366144
2013	562,239,093	15,541,750	0.02764260	2013	562,239,093	22,828,480	0.04060280
2014	674,596,339	14,150,000	0.02097551	2014	674,596,339	22,074,000	0.03272179
<b>Improvement District 125</b>				<b>Improvement District 225</b>			
2005	\$ -	n/a	n/a	2005	\$ -	n/a	n/a
2006	-	n/a	n/a	2006	-	n/a	n/a
2007	-	n/a	n/a	2007	-	n/a	n/a
2008	-	n/a	n/a	2008	-	n/a	n/a
2009	-	n/a	n/a	2009	-	n/a	n/a
2010	-	n/a	n/a	2010	-	n/a	n/a
2011	-	n/a	n/a	2011	-	n/a	n/a
2012	-	n/a	n/a	2012	-	n/a	n/a
2013	-	n/a	n/a	2013	-	n/a	n/a
2014	59,157,277,230	192,075,000	0.00324685	2014	49,514,977,898	240,995,000	0.00486711

**Irvine Ranch Water District**  
Ratio of General Obligation Debt to Assessed Values<sup>(1)</sup>  
For the Past Ten Fiscal Years  
(continued)

Fiscal Year Ending	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation	Fiscal Year Ending	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 153</b>				<b>Improvement District 240</b>			
2005	\$ -	n/a	n/a	2005	\$2,719,982,105	\$32,792,726	0.01205623
2006	-	n/a	n/a	2006	3,446,887,473	31,643,024	0.00918017
2007	-	n/a	n/a	2007	4,140,693,955	30,462,056	0.00735675
2008	36,114,444	n/a	n/a	2008	4,642,366,023	29,182,814	0.00628619
2009	36,903,662	n/a	n/a	2009	4,936,249,533	32,326,608	0.00654882
2010	36,997,523	n/a	n/a	2010	4,871,225,527	30,885,287	0.00634035
2011	7,971,152	n/a	n/a	2011	4,903,741,743	29,527,697	0.00602146
2012	8,114,060	n/a	n/a	2012	4,973,007,663	28,081,173	0.00564672
2013	8,475,848	n/a	n/a	2013	5,343,804,951	26,441,526	0.00494807
2014	8,687,744	n/a	n/a	2014	5,609,174,229	24,078,000	0.00429261
<b>Improvement District 154</b>				<b>Improvement District 253</b>			
2005	\$ -	n/a	n/a	2005	\$ -	n/a	n/a
2006	-	n/a	n/a	2006	-	n/a	n/a
2007	-	n/a	n/a	2007	-	n/a	n/a
2008	7,531,850	n/a	n/a	2008	36,114,444	n/a	n/a
2009	10,209,169	n/a	n/a	2009	36,903,662	n/a	n/a
2010	8,831,144	n/a	n/a	2010	36,997,523	n/a	n/a
2011	8,904,175	n/a	n/a	2011	7,971,152	n/a	n/a
2012	9,127,678	n/a	n/a	2012	8,114,060	n/a	n/a
2013	9,334,512	n/a	n/a	2013	8,475,848	n/a	n/a
2014	9,111,103	n/a	n/a	2014	8,687,744	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 Ending	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation	Fiscal Year Ending	Assessed Valuation	General Obligation Debt Outstanding	General Obligation Debt to Assessed Valuation
<b>Improvement District 188</b>				<b>Improvement District 288</b>			
2005	\$11,694,828	\$1,693,882	0.14484028	2005	\$11,694,828	\$1,693,882	0.14484028
2006	11,928,713	1,545,783	0.12958508	2006	11,928,713	1,545,783	0.12958508
2007	12,167,278	1,397,684	0.11487238	2007	12,167,278	1,397,684	0.11487238
2008	12,410,613	1,231,073	0.09919517	2008	12,410,613	1,231,073	0.09919517
2009	12,806,315	1,235,205	0.09645283	2009	12,806,315	1,235,205	0.09645283
2010	14,613,156	1,050,082	0.07185864	2010	14,613,156	1,050,082	0.07185864
2011	13,887,854	2,155,702	0.15522208	2011	13,887,854	2,155,702	0.15522208
2012	14,165,606	1,942,809	0.13714975	2012	14,165,606	1,942,809	0.13714975
2013	14,448,912	1,714,661	0.11867059	2013	14,448,912	1,714,661	0.11867059
2014	14,446,476	1,468,000	0.10161648	2014	14,446,476	1,468,000	0.10161648

Source: Irvine Ranch Water District

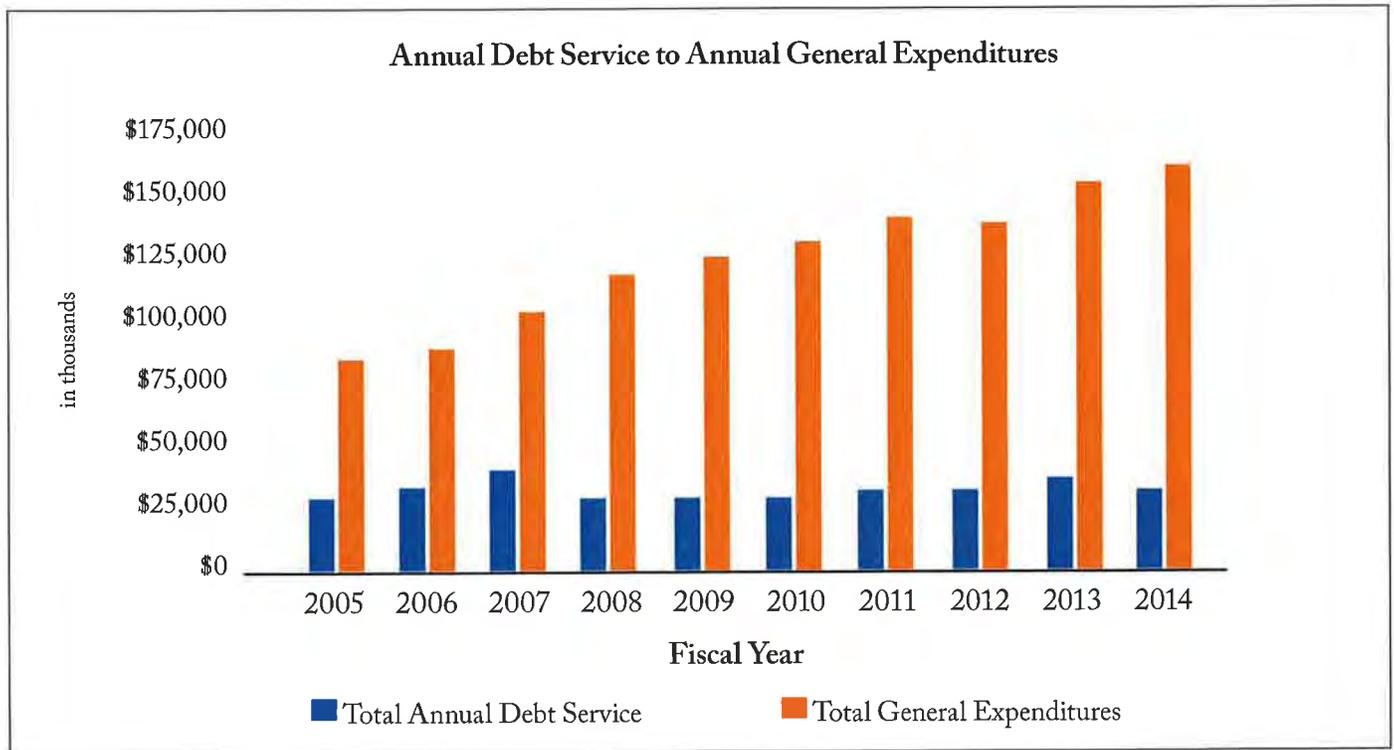
Note:

<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 - Cash Basis  
For the Past Ten Fiscal Years  
(in thousands)

Fiscal Year Ended	Total Annual Debt Service	Total General Expenditures	Ratio of Total Annual Debt Service to Total General Expenditures
2005	\$28,090	\$85,937	32.7%
2006	34,871	92,229	37.8%
2007	36,562	104,592	35.0%
2008	28,374	116,351	24.4%
2009	27,326	125,916	21.7%
2010	29,044	134,021	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%



Source: Irvine Ranch Water District

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

	2005	2006	2007	2008	2009
<b>Revenues</b>					
Water sales and service charges	\$33,105	\$39,256	\$45,138	\$48,516	\$50,940
Sewer sales and service charges	24,622	29,248	37,649	39,811	41,157
Developer Connection fees	6,188	17,903	22,122	6,411	4,535
Net real estate income	6,105	5,793	6,081	7,171	7,010
Interest income	7,695	7,749	8,969	9,859	4,365
Net earnings on JPA	3,277	3,367	3,388	3,238	2,990
Available 1% property tax revenue	0	0	216	4,869	17,007
Other	9,753	8,494	10,457	11,130	9,918
<b>Total Revenues</b>	<b>90,745</b>	<b>111,810</b>	<b>134,020</b>	<b>131,005</b>	<b>137,922</b>
<b>Expenses</b>					
Water supply services	26,644	31,385	34,979	39,029	42,273
Sewer services	20,019	19,528	24,570	27,211	28,696
Administrative and general	12,879	14,181	16,595	18,516	20,248
Other	430	666	884	2,288	1,535
<b>Total Expenses</b>	<b>59,972</b>	<b>65,760</b>	<b>77,028</b>	<b>87,044</b>	<b>92,752</b>
<b>Net Revenues</b>	<b>30,773</b>	<b>46,050</b>	<b>56,992</b>	<b>43,961</b>	<b>45,170</b>
<b>Parity Obligations</b>					
Certificates of Participation	1,094	1,873	2,319	3,564	2,798
1997 State Loan #3	226	227	227	227	227
Series 2010B Bonds	-	-	-	-	-
Series 2011-A Index Tender Notes	-	-	-	-	-
Prior Reimbursement Agreements	-	-	-	-	-
<b>Total Parity Obligations Debt Service</b>	<b>\$ 1,320</b>	<b>\$ 2,100</b>	<b>\$ 2,546</b>	<b>\$ 3,791</b>	<b>\$ 3,025</b>
Remaining Revenues	\$ 29,453	\$ 43,950	\$ 54,446	\$ 40,170	\$ 42,145
	<b>23.3 x</b>	<b>21.9 x</b>	<b>22.4 x</b>	<b>11.6 x</b>	<b>14.9 x</b>
<b>Parity Obligation Coverage</b>					
<b>Subordinate Obligations</b>					
Fixed Payer Swap Payments	(1,811)	42	612	2,115	5,694
State Loans and SCWD Debt	292	317	300	559	481
<b>Total Subordinate Obligations</b>	<b>(1,519)</b>	<b>359</b>	<b>912</b>	<b>2,674</b>	<b>6,175</b>
Remaining Revenues	30,972	43,591	53,534	37,496	35,970
<b>Non-Double-Barrel GO Bonds</b>					
<b>Revenues Pledged to Non-Double-Barrel GO Bonds</b>					
1% Property tax revenues (Pledged to Secured Bonds)	7,335	10,177	22,040	19,861	9,276
Pro-rata Share <i>Ad valorem</i> Assessments for Non-Double-Barrel GO Bonds	390	5,060	8,411	9,515	9,959
<b>Sub-total Pledged Revenues</b>	<b>38,697</b>	<b>58,828</b>	<b>83,985</b>	<b>66,872</b>	<b>55,205</b>
<b>Additional Funds Available for Non-Double-Barrel GO Bonds</b>					
Remaining 1% Property Tax Revenues	0	0	216	2,395	15,454
Additional Net Revenues	30,972	43,591	53,318	35,101	20,516
<b>Total with Additional Pledged Revenues</b>	<b>38,697</b>	<b>58,828</b>	<b>83,985</b>	<b>66,872</b>	<b>55,205</b>
<b>Debt Service</b>					
Non-Double-Barrel GO Bond Debt Service	27,432	28,935	30,451	29,376	19,235
GO Bond Coverage	1.4 x	2.0 x	2.8 x	2.3 x	2.9 x
Remaining Revenues	11,265	29,893	53,534	37,496	35,970
<b>Total Debt Coverage</b>	<b>1.4 x</b>	<b>2.0 x</b>	<b>2.6 x</b>	<b>2.0 x</b>	<b>2.3 x</b>

Source: Irvine Ranch Water District

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

	2010	2011	2012	2013	2014
<b>Revenues</b>					
Water sales and service charges	\$51,268	\$54,796	\$57,558	\$62,565	\$66,321
Sewer sales and service charges	45,344	45,375	49,234	53,085	58,109
Developer Connection fees	5,818	10,572	9,030	17,314	22,429
Net real estate income	5,624	3,715	5,023	6,566	7,760
Interest income	2,191	2,599	3,132	1,549	1,671
Net earnings on JPA	4,196	12,444	11,927	20,294	12,356
Available 1% property tax revenue	19,346	22,396	25,858	25,719	26,431
Other	10,706	7,987	6,141	8,323	10,974
<b>Total Revenues</b>	<b>144,493</b>	<b>159,884</b>	<b>167,903</b>	<b>195,415</b>	<b>206,051</b>
<b>Expenses</b>					
Water supply services	43,591	45,961	44,883	51,163	57,624
Sewer services	30,992	33,382	33,086	38,189	37,715
Administrative and general	20,000	18,896	20,097	22,667	22,272
Other	1,286	989	10,713	6,110	7,163
<b>Total Expenses</b>	<b>95,869</b>	<b>99,228</b>	<b>108,779</b>	<b>118,129</b>	<b>124,774</b>
<b>Net Revenues</b>	<b>48,624</b>	<b>60,656</b>	<b>59,124</b>	<b>77,286</b>	<b>81,277</b>
<b>Parity Obligations</b>					
Certificates of Participation	3,119	7,680	7,977	8,300	8,665
1997 State Loan #3	-	226	226	226	227
Series 2010B Bonds	-	4,080	7,533	7,519	7,825
Series 2011-A Index Tender Notes	-	35	2,284	2,306	2,360
Prior Reimbursement Agreements	-	-	-	-	-
<b>Total Parity Obligations Debt Service</b>	<b>\$ 3,119</b>	<b>\$ 12,021</b>	<b>\$ 18,020</b>	<b>\$ 18,351</b>	<b>\$ 19,077</b>
Remaining Revenues	\$ 45,505	\$ 48,635	\$ 41,104	\$ 58,935	\$ 62,200
	<b>15.6 x</b>	<b>5.0 x</b>	<b>3.3 x</b>	<b>4.2 x</b>	<b>4.3 x</b>
<b>Parity Obligation Coverage</b>					
<b>Subordinate Obligations</b>					
Fixed Payer Swap Payments	7,391	7,734	7,441	7,452	7,555
State Loans and SCWD Debt	381	253	254	254	308
<b>Total Subordinate Obligations</b>	<b>7,772</b>	<b>7,987</b>	<b>7,695</b>	<b>7,706</b>	<b>7,863</b>
Remaining Revenues	37,733	40,648	33,409	51,229	54,337
<b>Non-Double-Barrel GO Bonds</b>					
<b>Revenues Pledged to Non-Double-Barrel GO Bonds</b>					
1% Property tax revenues (Pledged to Secured Bonds)	7,804	4,593	3,292	3,546	3,013
Pro-rata Share <i>Ad valorem</i> Assessments for Non-Double-Barrel GO Bonds	11,244	11,690	11,585	11,817	4,797
<b>Sub-total Pledged Revenues</b>	<b>56,781</b>	<b>56,931</b>	<b>48,286</b>	<b>66,591</b>	<b>62,147</b>
<b>Additional Funds Available for Non-Double-Barrel GO Bonds</b>					
Remaining 1% Property Tax Revenues	19,346	22,396	25,858	25,719	25,987
Additional Net Revenues	18,387	18,252	7,551	25,510	28,350
<b>Total with Additional Pledged Revenues</b>	<b>56,781</b>	<b>56,931</b>	<b>48,286</b>	<b>66,591</b>	<b>62,147</b>
<b>Debt Service</b>					
Non-Double-Barrel GO Bond Debt Service	21,179	16,899	16,899	17,129	10,501
GO Bond Coverage	2.7 x	3.4 x	2.9 x	3.9 x	5.9 x
Remaining Revenues	35,602	40,032	31,387	49,462	51,646
<b>Total Debt Coverage</b>	<b>2.1 x</b>	<b>2.1 x</b>	<b>1.7 x</b>	<b>2.1 x</b>	<b>2.4 x</b>

Source: Irvine Ranch Water District

## Irvine Ranch Water District

Principal Employers

Fiscal Year Ended June 30, 2014

<u>Name of Company</u>	<u>Number of Employees</u>	<u>Products</u>	<u>Percentage of Employment</u>
University of California, Irvine	21,800	Educational	10.80%
Irvine Unified School District	2,839	Educational	1.41%
Blizzard Entertainment Inc.	2,804	Educational	1.39%
Broadcom	2,604	Technology	1.29%
Edwards Lifesciences	2,575	Surgical Appliances and Supplies	1.28%
Verizon Wireless	2,335	Wireless Communication	1.16%
Kaiser Permanente Hospital	2,316	Healthcare	1.15%
Parker Hannifin	1,950	Aircraft Parts	0.97%
Allergan	1,922	Pharmaceutical (R&D/Marketing)	0.95%
Western Digital Technologies	1,758	Technology	0.87%
			<u>21.27%</u>

Source: City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2013)

Data was not yet available for FY2013/14 from the City of Irvine.

The City of Irvine is only a part of the IRWD service area.

**Irvine Ranch Water District**  
Demographic & Economic Statistics  
For the Past Ten Fiscal Years

<b>Fiscal Year Ended</b>	<b>IRWD Population</b>	<b>City of Irvine Population</b>	<b>City of Irvine Median Family Income</b>	<b>Total Personal Income</b>	<b>County of Orange Unemployment Rate</b>
2005	316,000	183,218	82,827	\$7,267,978	3.9%
2006	322,000	192,167	84,270	7,352,397	3.6%
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	231,117	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	5.0%

Source: City of Irvine Comprehensive Annual Financial Report (Fiscal Year Ended June 30, 2013) 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.

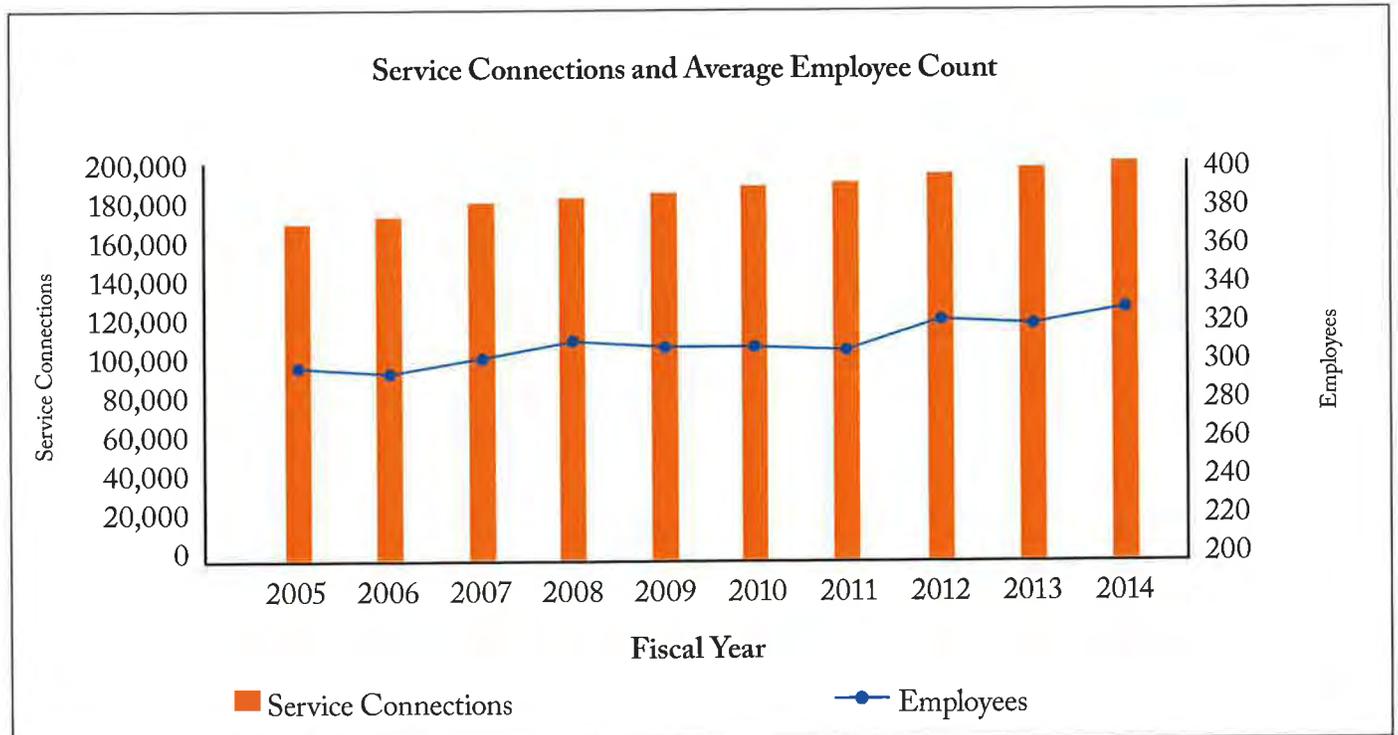
Note:

<sup>(1)</sup> Median Family Income and Total Personal Income for FY 2014 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 Ended	Potable Water	Non-Potable Water	Sewer & Recycled Water	Total Service Connections	Average Employee Population	Service Connections per Employee
2005	88,423	143	83,982	172,548	293	589
2006	90,816	219	86,290	177,325	290	611
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

Source: Irvine Ranch Water District



## Irvine Ranch Water District

### Operating Indicators by Function

#### New Service Connections

#### For the Past Ten Fiscal Years

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Water</b>										
Residential	2,360	2,039	2,211	1,439	552	631	1,469	862	1,520	1,848
Commercial/Industrial/ Public Authority	252	152	312	330	149	19	98	18	27	40
Fire Protection	137	128	162	173	86	43	40	37	55	50
Construction & Temporary	17	59	9	(101)	(60)	(6)	39	3	31	36
Landscape Irrigation	37	91	93	(80)	13	33	(21)	(89)	8	(4)
Agricultural	(6)	0	2	(1)	(13)	(8)	(11)	(3)	2	(1)
<b>Sewer</b>										
Residential	2,355	2,002	1,462	891	527	613	1,462	861	1,521	1,829
Commercial/Industrial/ Public Authority	237	150	290	357	156	21	37	21	29	41
Landscape Irrigation	264	156	276	207	84	63	85	102	112	127
Agricultural	(2)	0	(2)	4	3	10	1	7	(2)	(3)
<b>Total</b>	<b>5,651</b>	<b>4,777</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>

Source: Irvine Ranch Water District

## Irvine Ranch Water District

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Water</b>										
Residential	10	11	11	11	10	10	9	9	9	9
Commercial	72	73	75	69	63	57	56	61	63	66
Industrial	258	241	228	226	211	200	201	201	204	192
Public Authority	464	454	356	359	347	300	295	296	306	305
Construction & Temporary	95	94	94	122	39	52	79	106	181	241
Treated - Landscape Irrigation	103	110	127	122	116	95	85	94	105	182
Treated - Agricultural	1,990	1,760	1,653	1,294	1,116	663	925	835	733	575
Untreated - Agricultural	5,520	7,659	7,991	6,405	7,495	6,925	4,714	4,768	5,799	6,314
	<b>8,512</b>	<b>10,401</b>	<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>Recycled water</b>										
Landscape Irrigation	178	176	211	191	182	152	134	152	169	182
Agricultural	268	895	1,792	1,792	2,418	1,874	2,247	3,768	4,145	4,145
	<b>446</b>	<b>1,071</b>	<b>2,003</b>	<b>1,982</b>	<b>2,600</b>	<b>2,026</b>	<b>2,381</b>	<b>3,920</b>	<b>4,314</b>	<b>4,327</b>

Source: Irvine Ranch Water District

**Irvine Ranch Water District**  
Source of Supply and Demand in Acre Feet  
For the Past Ten Fiscal Years

Source of Supply  
(in cfs)

Fiscal Year Ending	Local	Imported	Recycled	Total Supply
2005	100.5	241.8	29.1	371.4
2006	100.5	241.8	29.1	371.4
2007	100.5	241.8	29.1	371.4
2008	96.1 <sup>(1)</sup>	241.8	35.3 <sup>(2)</sup>	373.2
2009	96.1	241.8	35.3	373.2
2010	96.1	241.8	35.3	373.2
2011	98.5 <sup>(3)</sup>	241.8	41.5	381.8
2012	98.5	241.8	41.5	381.8
2013	103.4 <sup>(4)</sup>	241.8	41.5	386.6
2014	108.2 <sup>(4)</sup>	241.8	41.5	391.5

Source Water Necessary to Meet Demands  
(in Acre Feet)

Fiscal Year Ending	Potable and Untreated	Recycled	Total Demand
2005	71,610	15,296	86,906
2006	73,863	15,416	89,279
2007	85,547	15,175	100,722
2008	82,412	16,566 <sup>(2)</sup>	98,978
2009	76,237	22,961	99,198
2010	70,102	20,848	90,950 <sup>(5)</sup>
2011	70,112	20,284	90,396
2012	66,342	20,602	86,944
2013	70,753	22,983	93,736 <sup>(6)</sup>
2014	77,523	20,935	98,458 <sup>(6)</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.

**Irvine Ranch Water District**  
Capital Asset Statistics  
For the Past Ten Fiscal Years

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Potable System</b>										
Miles of Water Line <sup>(1)</sup>	990	1,040	1,090	1,132	1,134	1,169	1,460	1,490	1,516	1,597
Number of Storage Tanks <sup>(3)</sup>	27	29	37	37	37	37	37	37	36	36
Maximum Storage Capacity (Acre Feet)	418	440	456	456	456	456	456	456	456	456
Number of Pumping Plants	24	32	40	40	45	45	45	45	40	41
Number of Wells	21	24	24	24	24	24	24	24	26	26
Well Production Capacity (cfs)	100	109	109	117	117	117	117	117	124	124
Water Banking Storage (Acre Feet)	-	-	-	-	-	57,600	59,600	59,600	59,600	59,600
<b>Non-Potable and Recycled Systems</b>										
Miles of Recycled Line <sup>(1)</sup>	307	337	367	399	400	407	468	478	488	503
Number of Storage Tanks <sup>(2)</sup>	14	10	11	11	11	11	11	11	12	12
Number of Open Reservoirs <sup>(2)</sup>	4	4	4	4	4	4	4	5	5	
Maximum Storage Capacity (Acre Feet) <sup>(4)</sup>	23,696	23,696	23,703	23,703	23,703	23,703	23,703	23,703	24,155	24,155
Number of Pumping Plants	17	17	18	18	18	18	18	18	19	19
Number of Wells <sup>(5)</sup>	3	5	5	5	5	5	5	5	5	5
Well Production Capacity (cfs)	3.8	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	656	680	809	899	901	940	950	962	971	1,009
Number of Lift Stations <sup>(6)</sup>	16	16	16	16	16	15	15	13	11	11
Treatment Plants	2	2	2	2	2	2	2	2	2	2
Treatment Capacity	22.5	22.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	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).

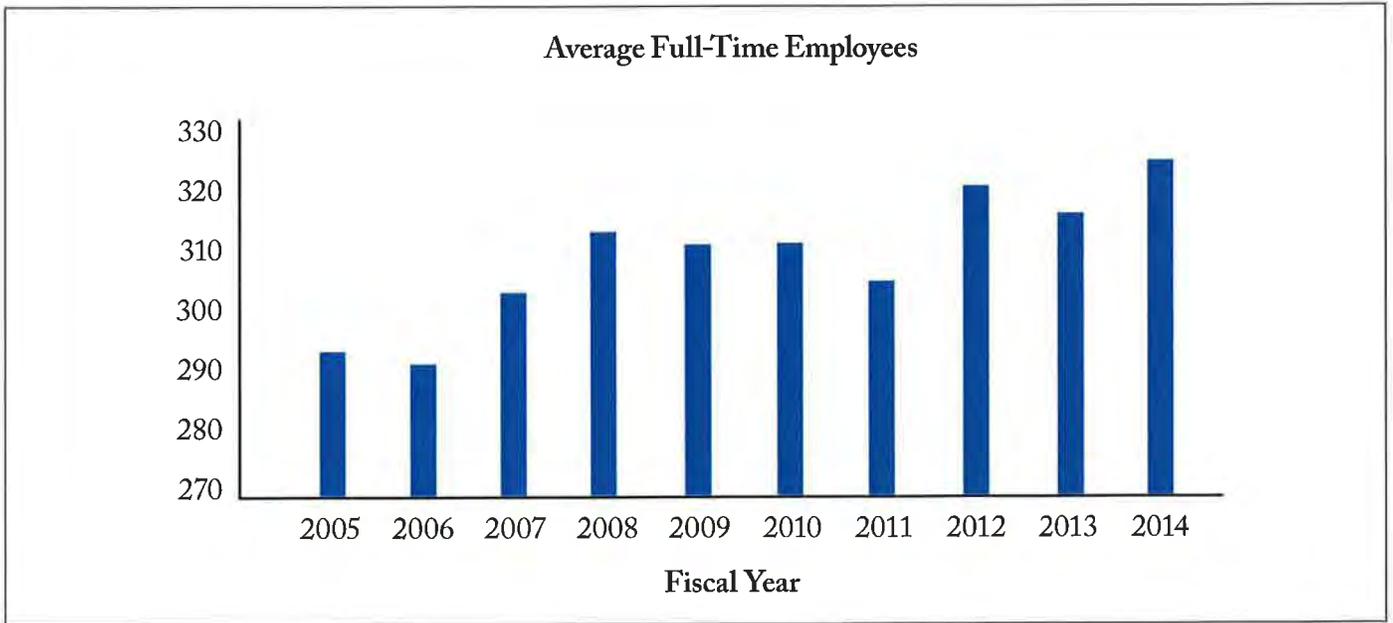
<sup>(4)</sup> Excludes Serrano Water District’s capacity in Irvine Lake, which equals 25% of total capacity.

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

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

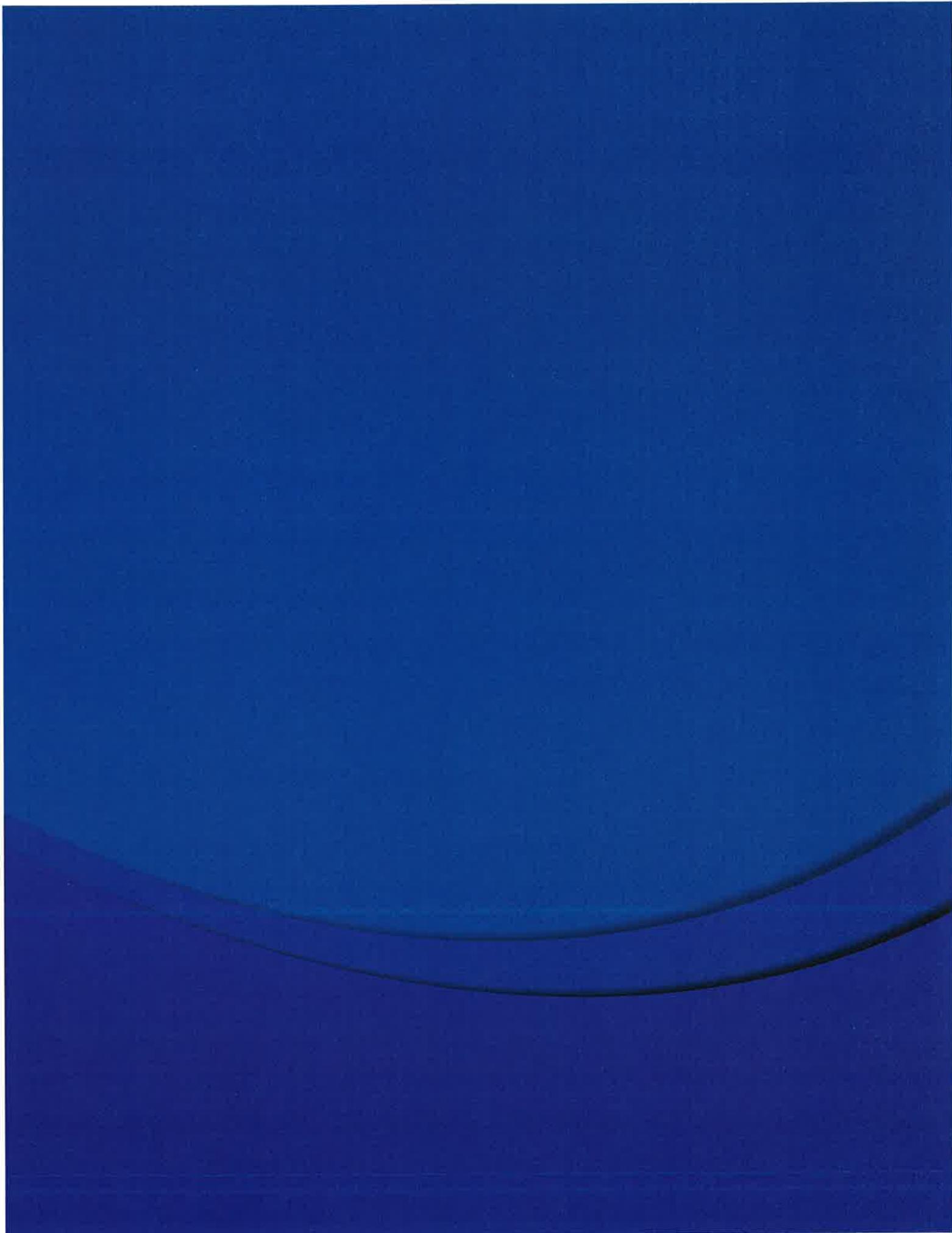
**Irvine Ranch Water District**  
 Full-Time Employees  
 For the Past Ten Fiscal Years

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Average Full-Time Employees	293	290	303	313	310	310	305	319	316	324



Source: Irvine Ranch Water District

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POST OFFICE BOX 57000  
IRVINE, CA 92619-7000  
949.453.5300

**IRVINE RANCH  
WATER DISTRICT**

## Exhibit “B”



**Mayer Hoffman McCann P.C.**  
An Independent CPA Firm

2301 Dupont Drive, Suite 200 ■ Irvine, CA 92612  
Main: 949.474.2020 ■ Fax: 949.263.5520 ■ www.mhmcpa.com

Finance and Personnel Committee  
Irvine Ranch Water District  
Irvine, California

### **Summary of Audit Results**

We have audited the financial statements of the Irvine Ranch Water District (“District”) for the year ended June 30, 2014, and have issued our report thereon dated December 1, 2014. Professional standards require that we provide you with 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 28, 2014. Professional standards also require that we communicate to you the following information related to our audit.

### **Scope and Timing of the Audit**

Audit field work was substantially completed in September 2014. Audit risks addressed by the audit included the following:

- Risk of material misstatement associated with investments and bank balances
- Risk of material misstatement associated with cash receipts and cash disbursements
- Risk of material misstatement associated with significant assets and liabilities
- Risk of improper recognition of revenues and expenses

### **Significant Audit Findings**

#### *Qualitative Aspects of Accounting Practices*

Management is responsible for the selection and use of appropriate accounting policies. We will advise management about the appropriateness of accounting policies and their application. The significant accounting policies used by the District are in Note 1 to the financial statements. During the fiscal year ended June 30, 2014, the District implemented GASB Statement No. 65. We noted no transactions entered into by the District during the year for which there is a lack of authoritative guidance or consensus. There are no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

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.
- Judgments regarding the fair market valuation of derivative instruments.

*Significant Difficulties Encountered in Performing the Audit*

We encountered no difficulties in performing and completing our audit.

*Audit Adjustments*

Professional standards require us to accumulate all known and likely adjustments identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. With the concurrence of management, adjustments not reflected in the financial statements because they were immaterial to the financial statements included adjustments to beginning net position and miscellaneous expenses due to the implementation of GASB 65.

*Disagreements with Management*

For purposes of this letter, professional standards define a disagreement with management as 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 1, 2014

*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 the 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 the governmental unit'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, which is 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.

This information is intended solely for the use of the Finance and Personnel Committee and management of the District and is not intended to be and should not be used by anyone other than these specified parties.

*Myra Helton McLean P.C.*

Irvine, California  
December 1, 2014

## Exhibit “C”



**Mayer Hoffman McCann P.C.**  
An Independent CPA Firm

2301 Dupont Drive, Suite 200 ■ Irvine, CA 92612  
Main: 949.474.2020 ■ Fax: 949.263.5520 ■ [www.mhmcpa.com](http://www.mhmcpa.com)

Finance and 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, each major fund and the aggregate remaining fund information of as of and for the year ended June 30, 2014, and the related notes to the financial statements, which collectively comprise Irvine Ranch Water District’s (District) basic financial statements, and have issued our report thereon dated December 1, 2014.

#### **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 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.

*Mayor Hoffman Melann P.C.*

Irvine, California  
December 1, 2014

DB  
December 15, 2014

Prepared by: C. Kessler/K. Lew

Submitted by: K. Burton *K.B.*

Approved by: Paul Cook *P. Cook*

## CONSENT CALENDAR

### TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES SUPPLEMENTAL REIMBURSEMENT AGREEMENT

#### SUMMARY:

Irvine Community Development Company (ICDC) is beginning development of the Technology Drive extension which includes the construction of streets, storm drains, domestic water, and recycled water improvements. As part of the project, ICDC will construct the IRWD capital recycled facilities in Technology Drive and Laguna Canyon Road under a Supplemental Reimbursement Agreement (RA) to a Master RA (May 1997). The project will include approximately 6,000 linear feet of 20-inch pipeline. Staff recommends that the Board authorize the General Manager to execute a Supplemental Reimbursement Agreement with ICDC for the Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities, project 30366.

#### BACKGROUND:

IRWD and ICDC have had a Master RA for construction of IRWD capital facilities in place since May 1997. Under this RA, a Supplemental RA serves to define the improvements to be designed and constructed within a specific Planning Area as well as the estimated reimbursable costs. A copy of the Supplemental RA for the Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities Project is attached as Exhibit "A".

The Zone B recycled water transmission main was originally proposed to be located within Sand Canyon Avenue from Laguna Canyon Road to Trabuco Road. Due to the potential impact to the recently constructed grade separation and heavy traffic along Sand Canyon Avenue, a study was completed to evaluate alternative alignments. The study titled "Planning Area 40, Sand Canyon Zone B Recycled Water Transmission Main Re-Alignment Analysis" was prepared in June 2014 by Stantec. The study recommended a lower cost alignment where the pipeline would be routed from Laguna Canyon Road to within the future Technology Drive extension and then across the freeway and railroad to Marine Way, as shown in the location map attached as Exhibit "B". Staff proposes that the Zone B recycled water transmission main be designed and constructed in coordination with ICDC's plans for the Technology Drive extension project. ICDC has nearly completed the project design, but is willing to delay project construction to accommodate the additional pipeline into the overall design for the Technology Drive extension project.

RBF is ICDC's design engineer for the Technology Drive extension project and is recommended for the Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities design. RBF's proposed design fee for the pipeline is \$288,680. A copy of RBF's scope of work and fee proposal is attached as Exhibit "C". Staff finds that the proposed design fee is reasonable given the complexity associated with the following key issues of the project:

Consent Calendar: Technology Drive and Laguna Canyon Road Capital Recycled Water  
Facilities Supplemental Reimbursement Agreement

December 15, 2014

Page 2

- *Storm Drain Redesign:* The proposed storm drain system in Technology Drive must be redesigned to accommodate the new 20-inch recycled water pipeline;
- *OCTA/Metrolink, Caltrans, and City of Irvine Permitting:* The pipeline will need to be permitted with OCTA/Metrolink for the railroad crossing, Caltrans for the I-5 and SR-133 freeway crossings, and the City of Irvine for the Bee Canyon storm drain crossing; and
- *Space Constraints/Existing Utilities:* In the narrow stretch under the I-5 Freeway, the new pipeline will be in close proximity to existing bridge footings and other existing utilities including a 66-kV encased electrical conduit owned by Southern California Edison.

FISCAL IMPACTS:

Project 30366 (1015) is included in the FY 2014-15 Capital Budget. The existing budget is sufficient to fund design. A budget increase for construction will be requested at the time of construction award.

ENVIRONMENTAL COMPLIANCE:

Activities such as executing reimbursement agreements is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects which have the potential for causing a significant effect on the environment.

Construction of capital recycled water facilities as a part of the Technology Drive Extension Project is subject to CEQA. In conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report was certified by the County of Orange on August 11, 1992 (920-31007).

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 9, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A SUPPLEMENTAL REIMBURSEMENT AGREEMENT WITH ICDC FOR THE TECHNOLOGY DRIVE AND LAGUNA CANYON ROAD CAPITAL RECYCLED WATER FACILITIES, PROJECT 30366 (1015).

LIST OF EXHIBITS:

- Exhibit "A" – Supplemental Reimbursement Agreement
- Exhibit "B" – Location Map
- Exhibit "C" – RBF Scope of Work and Fee Proposal

Exhibit "A"  
to  
Reimbursement Agreement

SUPPLEMENTAL REIMBURSEMENT AGREEMENT

BY AND BETWEEN

IRVINE RANCH WATER DISTRICT

AND

THE IRVINE COMPANY

This SUPPLEMENTAL REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between Irvine Ranch Water District, a California water district formed and existing pursuant to the California Water District Law of the state of California ("IRWD"), and The Irvine Company ("TIC"). All capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Reimbursement Agreement.

WHEREAS, IRWD and TIC have previously entered into that certain Reimbursement Agreement dated May 21, 1997 ("Reimbursement Agreement") respecting construction of Capital Facilities; and

WHEREAS, said Reimbursement Agreement made reference to the fact that certain supplemental agreements would be entered into by the parties regarding construction of Capital Facilities and reimbursement therefor consistent with the provisions of said Reimbursement Agreement; and

WHEREAS, the parties now wish to enter this Agreement regarding the construction of Capital Facilities described below, subject to all of the terms of the Reimbursement Agreement, except as provided herein.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants hereinafter set forth, do agree as follows:

1. Except as provided herein, the parties hereby incorporate by reference all of the terms and conditions of the Reimbursement Agreement into this Agreement.

2. The name of the Project to which this Agreement pertains is:  
Technology Drive and Laguna Canyon Road Capital Recycled Water Facilities.  
The Project is depicted on Exhibit 1 attached to this Agreement.

3. The Capital Facilities to be constructed pursuant to this Agreement are as follows: [describe type, diameter, approximate linear footage, etc; include any detailed drawing as Exhibit 3 if needed]

Approximately 6,000 linear feet of 20-inch diameter recycled water main. The Capital Facilities  do /  do not [check appropriate box] include any facilities that are a part of the Michelson/ Los Alisos Recycling Plants Upgrades and Distribution System Expansion Project identified in the Agreement No. 61719 2003 LRP Local Resources Program Agreement, entered into as of June 13, 2005, by and between IRWD and the Metropolitan Water District of Southern California (the "MWD Local Project").

4. The total costs for the Capital Facilities shall include, but not be limited to, the actual costs for construction, surveying, compaction testing, permits, construction bonds, legal fees and an administration fee equal to one percent (1%) of the actual cost of construction (all such actual costs are collectively referred to as the "Costs"). The estimated amount of the Costs is \$3,000,000.

5. The following special terms apply to the construction of the Capital Facilities under this Agreement and supersede the provisions of the original Reimbursement Agreement referenced above: "The "Costs" shall also include consultant design and consultant construction administration assistance.

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6. In accordance with Section 10 of the Reimbursement Agreement, TIC is executing concurrently herewith an Assignment Agreement in the form of Exhibit 2, to be effective upon the Effective Date specified in the Assignment Agreement.

7. If the box in Section 3 above has been checked to indicate that any of the Capital Facilities are a part of the MWD Local Project, then TIC shall include the following language in its agreements with any consultant or contractor retained by TIC to work on the Capital Facilities:

"[Contractor / Consultant] agrees at its sole cost and expense to protect, indemnify, defend, and hold harmless Metropolitan Water District of Southern California, Municipal Water District of Orange County, and each of their respective Boards of Directors, officers, representatives, agents and employees from and against any and all claims and liability of any kind (including, but not limited to, any claims or liability for injury or death to any person, damage to property, natural resources or the environment, or water quality problems) that arise out of or relate to any act or omission of [Contractor / Consultant] in the performance of this agreement. Such indemnity shall include all damages and losses related to any claim made, whether or not a court action is filed, and

shall include attorney fees, administrative and overhead costs, engineering and consulting fees and all other costs related to or arising out of such claim of liability.”

IN WITNESS WHEREOF, the parties have entered this Agreement as of the date set forth above.

IRVINE RANCH WATER DISTRICT

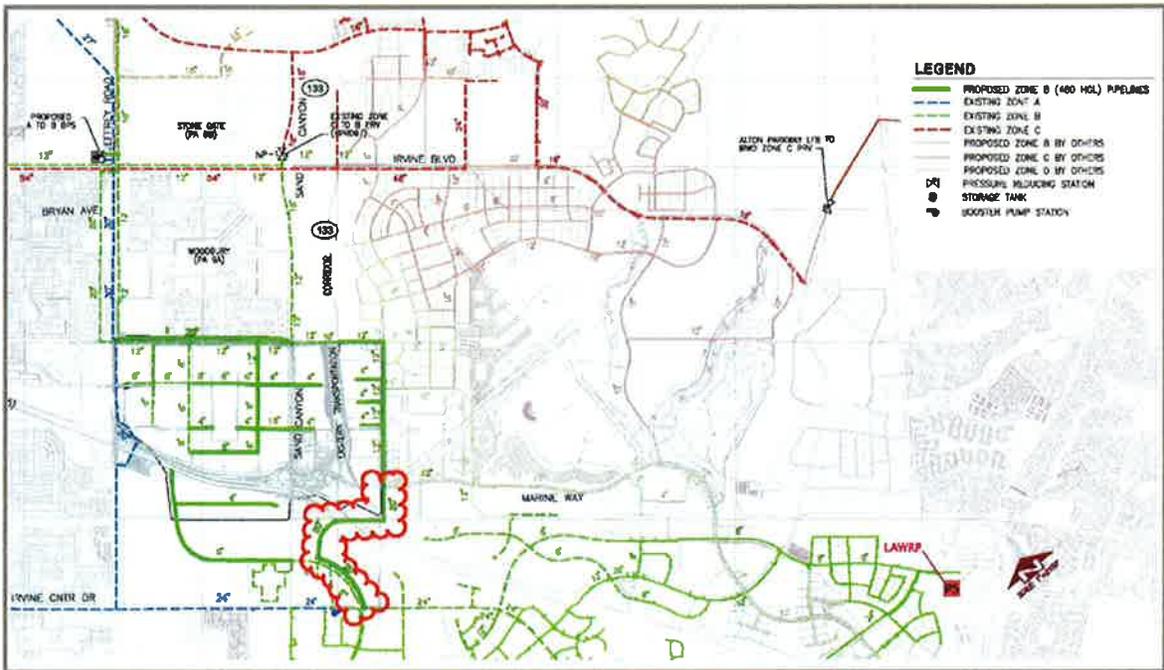
THE IRVINE COMPANY

By: \_\_\_\_\_  
General Manager

By: \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Title: \_\_\_\_\_

Exhibit "1"  
to  
Supplemental Reimbursement Agreement



**Technology Dr. & Laguna Canyon Rd. 20"  
Capital Recycled Facilities Location Map**

**Zone B Recycled Water Main Re-Alignment  
(Technical Memo)**  
FIGURE 1

Exhibit "2"  
to  
Supplemental Reimbursement Agreement

Assignment Agreement

This ASSIGNMENT AGREEMENT is made as of \_\_\_\_\_, 20\_\_\_\_, by and between THE IRVINE COMPANY, a corporation, dba Irvine Industrial Company ("Assignor"), to IRVINE RANCH WATER DISTRICT, a California water district formed and existing pursuant to the California Water District Law of the State of California ("Assignee") based upon the following recitals:

A. Assignor has previously (or will, prior to the Effective Date hereof, have) entered into that certain Construction Contract relating to the Project and Capital Facilities identified in Schedule A hereto (the "Construction Contract").

B. Assignee desires to acquire (I) Assignor's right, title and interest in and to the Capital Facilities constructed under the Construction Contract, and (II) the warranty rights of Assignor as to the Capital Facilities under the Construction Contract, and Assignor desires to assign such rights to Assignee.

NOW, THEREFORE, in consideration of the foregoing, the covenants and agreements contained herein and other valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. ASSIGNMENT. Effective upon the date specified in Section 2 hereof (the "Effective Date"), Assignor assigns and transfers to Assignee all of Assignor's right, title, claim and interest in and to (a) the Capital Facilities constructed pursuant to the Construction Contract, and (b) the warranties and guarantees of contractor as to the Capital Facilities constructed pursuant to the Construction Contract. This Assignment is made by Assignor pursuant to the provisions of Section 10, entitled "Assignment of Interest", contained in that certain Reimbursement Agreement between Assignor and Assignee dated as of May 21, 1997.

2. EFFECTIVE DATE. The Effective Date shall be the date of the filing of the Notice of Completion for the Construction Contract unless a different date is inserted in the following space: \_\_\_\_\_

3. TRANSFER OF DOCUMENTATION. On or prior to the Effective Date, Assignor shall provide Assignee with a copy of the Construction Contract.

IN WITNESS WHEREOF, Assignor has executed this Assignment Agreement as of the date first above written.

ASSIGNOR:

THE IRVINE COMPANY, a corporation,  
dba Irvine Industrial Company

By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Schedule A  
to  
Assignment Agreement

This Schedule A to Assignment Agreement relates to the assignment of certain matters pursuant to the Supplemental Reimbursement Agreement between Assignor and Assignee dated \_\_\_\_\_ (“Supplemental Reimbursement Agreement”).

Agreement:      Insert name of Project from Section 2 of Supplemental Reimbursement  
\_\_\_\_\_

                         Insert description of Capital Facilities from Section 3 of Supplemental  
Reimbursement Agreement: \_\_\_\_\_

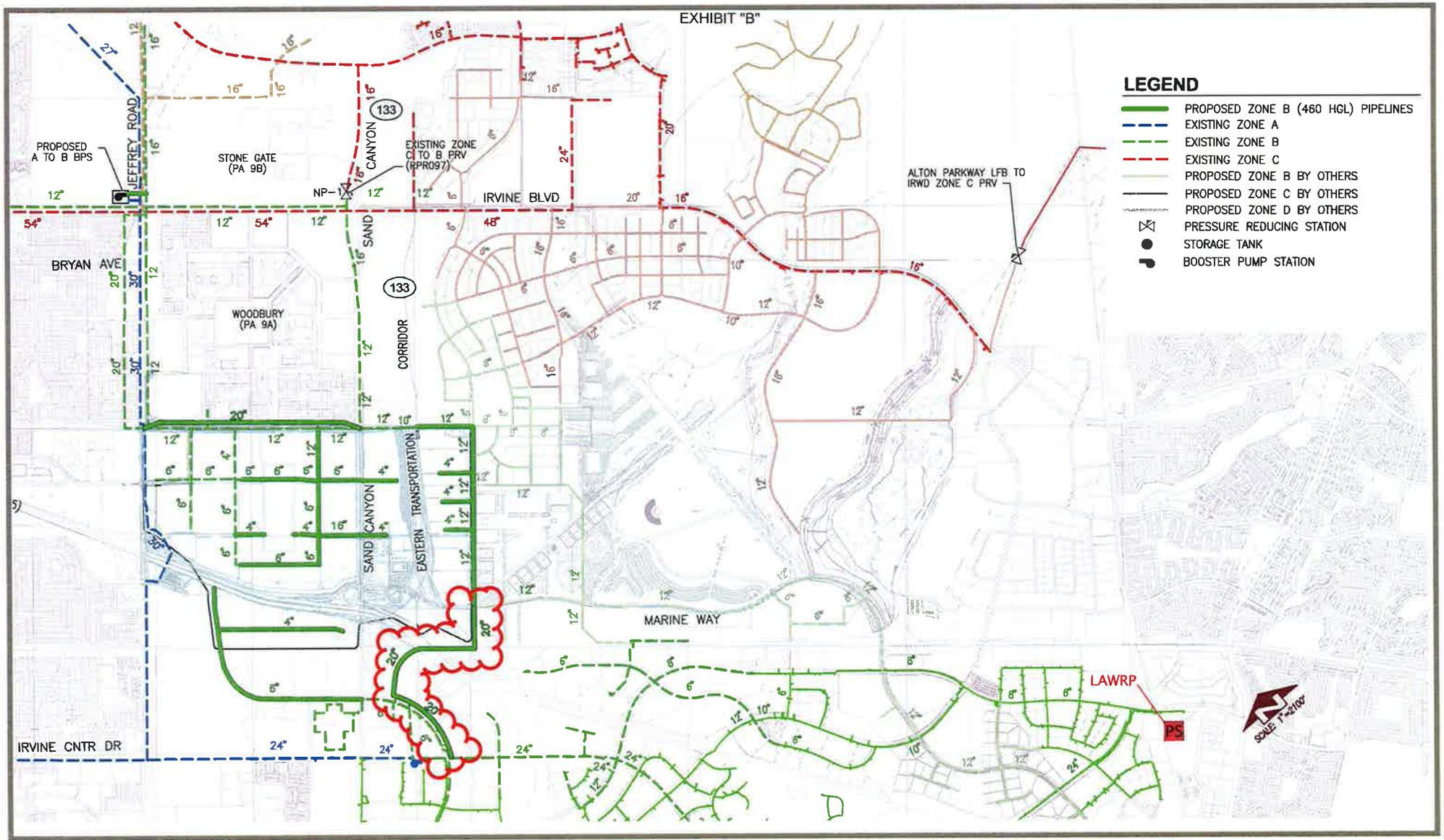
Contractor’s Name: \_\_\_\_\_

License No. \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Contact Person: \_\_\_\_\_



## EXHIBIT "C"



### IRVINE COMPANY COMMUNITY DEVELOPMENT

**ICDC Project Manager:** Jamie Yoshida

**RBF Project Manager:** Mike Chesney

**Project Area:** Technology Drive

**Project Description:** Project Development – Technology Drive Improvements

**IRWD 20 inch Recycled Water Pipeline PS&E Capital Facility**

**Date:** October 29, 2014

#### **Project Description:**

The 20-inch IRWD Zone B Transmission Main (recycled water) is proposed to be located in Laguna Canyon Road from Irvine Center Drive through the Technology Drive Extension and to the intersection of Marine Way and "O" Street. The proposed pipeline will connect to a proposed 12-inch recycled water line at the intersection of Marine Way and "O" Street. The proposed recycled water facilities in the area of Marine Way and "O" Street, including the 20-inch Zone B Transmission Main, are being designed and constructed in order to supply recycled water to the Irvine Great Park. The proposed alignment of the 20-inch pipeline is approximately 6,000 linear feet in length, and crosses under the I-5 and SR-133 Freeway Bridge structures, as well as below the Metrolink Railroad north of Technology Drive. The recommended alignment was made in the document "Zone B & C Regional Hydraulic Analysis," prepared in December 2012 by Stantec, and is based on an alternative alignment which will avoid construction in Sand Canyon Avenue.

This project will be designed in concurrence with a number of proposed utilities currently designed to run from Laguna Canyon Road through the Technology Drive Extension. These utilities are a 10-inch domestic water line, a 4-inch recycled water line, a 12-inch sewer line, and storm drain facilities. All these utilities are designed as part of the overall Technology Drive Extension project, which will extend the current alignment of Technology Drive to connect with Laguna Canyon Road.

This project will be processed as a separate PS&E package through Caltrans with the goal of securing a separate encroachment permit from Caltrans District 12. Additionally, this project will be processed through the City of Irvine as a separate permit application.

## Key Issues

As part of this proposal, RBF has reviewed supporting information that will have a direct effect on the design of the proposed pipeline. The alignment of the Zone B main must be coordinated with the design of all proposed utilities in the Technology Drive extension, a sewer alignment that crosses under the railroad called the "Reach A" sewer, and the proposed 12-inch recycled water lines in Marine Way and "O" Street. Through our research into the project elements, we have identified the following key issues that must be addressed:

- Key Issue No. 1: OCTA/Metrolink Railway Right of Way Undercrossing

The alignment of the proposed 20-inch pipeline must be permitted in order to cross underneath the railroad located north of Technology Drive. The permitting process can be lengthy, and in order to obtain the correct permits and stay on schedule, RBF will coordinate with OCTA and SCRRA (Metrolink).

- Key Issue No. 2: I-5 Freeway Bridge Undercrossing

The portion of Technology Drive that crosses under the I-5 Bridge becomes narrow due to the existing bridge foundations. The road narrows at the bridge approach and continues for approximately 400 feet. This narrow stretch of roadway will require the proposed utilities to be spaced at distances less than the minimum horizontal spacing required by IRWD. Preliminary discussions with IRWD have yielded an acceptable clearance of 3.5 feet for this narrow stretch of road. This portion of the proposed alignment is a critical part of the design effort.

- Key Issue No. 3: Existing Utilities

In the narrow stretch under the I-5 Freeway, there is an existing 66-kV encased electrical conduit owned by SCE. In order to avoid delays during the construction process, horizontal spacing requirements within the bridge undercrossing will need to be coordinated with SCE.

- Key Issue No. 4: Project Schedule

The proposed Zone B Transmission Main is part of the overall Technology Road Extension project, and thus should adhere to the same schedule. The pipeline must be designed and permitted before the Technology Road extension can be built, in order to avoid demolition of portions of the newly constructed roadway.

## **Scope of Work:**

### **Task No. 01 Research and Base Data Review**

CONSULTANT will research and review available information. It is assumed that the Client will provide all available record information to CONSULTANT at no cost, including technical studies, reports, easement documents, as-built drawings, utility company drawings, and atlas maps.

CONSULTANT will review available updated data, plans, studies, and information prepared to date for the project site.

CONSULTANT will also conduct a pre-design field walk to verify record information.

#### **Deliverables**

- Base Data Review

### **Task No. 02 Field Surveying**

CONSULTANT will provide supplemental conventional field surveying to facilitate the preparation of the design documents. Survey shall include locations of centerline monuments for determination of the roadway tie-ins. This task assumes that sufficient centerline monuments exist in order for the survey to be completed. If additional surveys are required to complete the survey due to a lack of viable existing monumentation, the Client and CONSULTANT will review the status of the survey to determine whether additional fee authorization to complete the survey is appropriate.

CONSULTANT will provide survey information that will include horizontal and vertical locations of existing grade, flowlines, grade breaks, any above ground utility appurtenances, manholes, trees with trunk diameters larger than 6 inches, power poles, culverts, headwalls, and slopes. Major intersections and tie-ins shall be surveyed on a 10 ft. grid.

The basis of horizontal control shall be North American Datum 1983 and the 2007.0 Epoch as published by the National Geodetic Survey.

The basis of vertical control shall be North America Vertical Datum of 1988 as published by the County of Orange.

Traffic control shall be provided in accordance with local agency and/or Caltrans standards and criteria in addition to the Work Area Traffic Control Handbook (WATCH) for any lane or shoulder closures that will be required to collect supplemental survey data along the tie-in streets.

All survey shall be electronically field data collected and detailed on hardcopy back-up and field notes.

This task also includes preparing and submitting a separate encroachment permit that must be obtained from the City of Irvine before surveying any facilities within City limits.

#### **Deliverables**

- Conventional Field Survey (CAD File)

#### **Task No. 03 Utility Investigation, Potholing, and Coordination**

CONSULTANT shall make contacts with utility agencies/owners having facilities within the project area to update the existing utility information for the project. Utilities which may impact the project will be plotted on the base plans. Planned utility improvements will be ascertained. The base maps will be forwarded to each utility agency/owner for review, correction and certification of correctness. The utility research will be isolated to areas likely to be affected by the proposed roadway alignment.

Ten (10) utility potholes are proposed to determine if there are any physical utility conflicts. This task also includes surveying of the potholes to obtain horizontal and vertical location information as well as the depth of any utilities encountered. Additionally, this task includes any traffic control required for potholing on an active street to direct traffic around the pothole work site.

If additional potholes are required, an additional scope and fee will be negotiated with the Client, and no work will be conducted without prior authorization from the Client.

No existing wet or dry utility relocations or adjustments are anticipated for this scope of work.

#### **Deliverables**

- Utility Investigation, Potholing, and Coordination

#### **Task No. 04 Preliminary Design Report**

CONSULTANT shall prepare a Preliminary Design Report (PDR) that will consist of a brief technical memorandum to identify the preliminary design of the pipeline. The PDR will address the following criteria:

- Design criteria
- Proposed horizontal and vertical alignment
- Constructability
- Required permits and approvals
- Preliminary cost estimate

This task assumes that the proposed diameter and general alignment have already been confirmed by IRWD.

## Deliverables

- Preliminary Design Report

### Task No. 05 Final Engineering Plans

CONSULTANT shall prepare the pipeline plan sheets in conformance with the latest available drafting, policy and procedure manuals of IRWD. Existing utilities within the proximity of the construction will be located on the plan, and crossings also shown in the profile, where applicable.

It is assumed the following PS&E submittals will be made to IRWD:

- 75% PS&E
- 100% PS&E
- Final signed construction documents

The following is a listing of plan sheets with corresponding English scale:

Task	Plan	English Scale
5.01	Title Sheet	Varies
5.02	General Notes Sheet	Varies
5.03	Index Map and Construction Notes Sheet	Varies
5.04	20-inch Recycled Water Line Plan and Profile Sheets	1 in. = 40 ft.
5.05	Pipeline Connection, Jack and Bore, and Miscellaneous Detail Sheets	Varies
5.06	Traffic Control Plan and Detail Sheets	1 in. = 40 ft.

#### Traffic Control Plans and Details

CONSULTANT will prepare Traffic Control Plans for the waterline installation along Laguna Canyon Road only.

The plans will show placement of temporary channelizers, delineators, barricades, signs, flashing arrow signs (FAS), and pavement markings.

The traffic control plans will be prepared in accordance with standards set forth by the City of Irvine and the California Manual on Uniform Traffic Control Devices (MUTCD).

### **Deliverables**

- Final Engineering Plans

### **Task No. 06 Storm Drain Realignment Analysis and Design Modifications**

CONSULTANT shall analyze the current alignment of the proposed storm drain line to determine the revised horizontal and vertical alignment for the storm drain pipeline. CONSULTANT shall adjust the horizontal layout and the vertical profile of the proposed storm drain line to accommodate the IRWD 20-inch Recycled Waterline facilities. The modified horizontal and vertical alignment of the storm drain line will dictate a new connection point to the existing Marshburn Channel box culvert. The revised alignment of the proposed storm drain line will be changed on three (3) plan and profile sheets and one (1) detail sheet.

### **Deliverables**

- Storm Drain Realignment Analysis and Design Modifications

### **Task No. 07 Storm Drain Hydrology and Hydraulics Report Revisions**

CONSULTANT shall revise the hydrology and hydraulics report based on the adjusted horizontal layout and the vertical profile of the proposed storm drain line to accommodate the IRWD 20-inch Recycled Waterline facilities.

### **Deliverables**

- Storm Drain Hydrology and Hydraulics Report Revisions

### **Task No. 08 Right of Way Engineering**

CONSULTANT shall conduct research and prepare legal descriptions and exhibits for the required easements for the 20-inch RW facility outside of public right-of-way. CONSULTANT shall provide Right of Way Engineering support of the new acquisitions which includes:

- Records research with the County of Orange and the City of Irvine to compile maps and documents showing the existing centerlines, rights of way and land parcel boundaries
- Field survey to locate and tie existing key controlling survey monuments;
- Calculation of record boundaries, centerlines and rights of way sufficient to support appraisal and acquisition
- Preparation of Legal Descriptions and Exhibit Maps (2 Total)

### **Deliverables**

- Two (2) Legal Descriptions and Exhibit Maps for Waterline Easements

## **Task No. 09 Engineering Cost Estimate**

An Engineering Cost Estimate will be prepared based on the final design improvements. Additionally, data and input from the affected parties and agencies will be reviewed for applicability to the engineering cost estimate. The cost estimates will reflect recent market material cost trends and current construction climate information. Cost estimates will also be referenced and compared with estimates of similar project bid summaries by IRWD.

### **Deliverables**

- Engineering Cost Estimate

## **Task No. 10 Technical Specifications**

CONSULTANT will prepare Special Provisions per Irvine Ranch Water District (IRWD) requirements and the "Green Book". The technical Special Provisions will be prepared in IRWD format, and all current amendments will be incorporated per IRWD requirements. All specific requirements for lane closures and roadway operations will be incorporated as part of the overall project technical special provisions.

### **Deliverables**

- Technical Specifications

## **Task No. 11 Railroad Coordination and Permitting**

CONSULTANT shall prepare a permitting package that addresses railroad right-of-way impacts as a result of the 20-inch IRWD Recycled Waterline pipeline alignment. CONSULTANT shall prepare exhibits and temporary construction impact assessments to coordinate with the Southern California Regional Rail Authority (SCRRA). The initial tasks include:

- Conceptual Plan Approval – Prepare submittal package, coordinate fees with ICDC, submit request letter to SCRRA with 75% complete plans, deposit for plan review, vicinity and location maps, CD with plans.
- Plan Review Coordination - SCRRA typically takes 3 weeks to review plans and provide comments, set up project account, issue receipt. RBF to respond to comments and resubmit to SCRRA for conceptual plan approval and issuance of Interoffice Memo to OCTA, authorizing preparation of the OCTA License for the jack and bore operation.
- OCTA License Agreement – Prepare Draft License Agreement, submit to OCTA for review, coordinate legal description and exhibits for license, coordinate with IRWD for review by Engineering and Legal Departments,

process revisions with IRWD and OCTA for signatures and approval. Coordinate license fees (ICDC or IRWD) and insurance requirements.

- Right of Entry Form 6 – Prepare submittal package, coordinate fees, submit request letter to SCRRA with Form 6 signed by contractor along with approved plans, fees and insurance.
- Miscellaneous Tasks – Assist with utility notifications, schedule safety training class for contractors and inspectors, schedule EIC for flagging, schedule signal markings.

#### **Deliverables**

- Railroad Coordination and Permitting

#### **Task No. 12 Caltrans Encroachment Permit and City of Irvine Permit Processing**

CONSULTANT will process the final PS&E package with Caltrans District 12 for an encroachment permit to allow construction of the IRWD facilities within Caltrans Right-of-Way. CONSULTANT will coordinate with the various functional units and reviewers to address comments on the plans.

CONSULTANT will process a miscellaneous construction permit with the City of Irvine for the construction of the IRWD facilities within City of Irvine Right-of-Way.

#### **Deliverables**

- Caltrans Encroachment Permit and City of Irvine Permit Processing

#### **Task No. 13 Plan Check Revisions and Approvals**

CONSULTANT will process the completed plans for the purpose of securing appropriate approvals and permits from the City of Irvine and IRWD as required. Submittals to agencies shall include all plans and required backup data for review.

CONSULTANT will receive written comments from all participating agencies and review with Client. CONSULTANT will draft a response to all agency comments at one time.

CONSULTANT will then meet collectively with all participating agencies to resolve outstanding issues relative to agency comments. CONSULTANT will then prepare final dispositions for each review comment for submittal to the Agencies. CONSULTANT will make revisions to PS&E documents following plan check for second plan check submittal and provide final revised quantity take-offs and cost estimates. When revisions have been made, CONSULTANT will obtain signatures and provide the requested number of stamped plans to the City and IRWD.

### **Deliverables**

- Plan Check Revisions and Approvals

### **Task No. 14 Project Meetings**

CONSULTANT shall attend Project Team meetings with Client to discuss work progress, schedule and related issues in order to exchange information, discuss and resolve issues and to maintain progress of the project. The project meetings are anticipated to include the following agencies:

- OCTA
- SCRRRA
- Caltrans District 12
- City of Irvine
- IRWD

The fee has been established based on an initial estimate of 40 hours of project coordination meetings.

### **Deliverables**

- Project Meetings

### **Task No. 15 Project Management and Coordination**

CONSULTANT shall provide project management and coordination for the design and administration of the project. CONSULTANT's project management and coordination activities will include the following:

- CONSULTANT shall supervise, coordinate, monitor and review design and any clarifications for conformance with applicable City of Irvine and IRWD standards, policies and procedures.
- CONSULTANT shall coordinate with Client and other Agencies to facilitate project delivery. Management support shall be provided to support resolution of project design scope and scheduling.
- CONSULTANT shall document all project decisions and distribute correspondence copies to all Project Team members as appropriate.
- The order, sequence and interdependence of significant work items including engineering design, agency review periods, and other relevant project activities will be coordinated.

## **Deliverables**

- Project Management and Coordination

## **Reimbursables:**

Reprographics, computer plotting services, copies, deliveries, and mail services should be budgeted for and estimated as needed to support this project. The expenses should be invoiced on a monthly basis and paid at their direct cost. All reimbursable items shall require backup or receipts supporting these costs.

ICDC will provide an access code for printing materials through the ICDC account with ABC Reprographics. These authorized materials will be billed directly to ICDC's account.

## **Scope Assumptions:**

1. No changes to the approved Technology Drive Caltrans PEER document are anticipated as this project will be processed as a separate encroachment permit for Caltrans District 12.
2. No construction support activities or bid support activities are assumed as part of this scope of work. All construction support and bid support efforts, including contract document preparation, will be prepared per separate scope and fee.
3. Resource Agency permits (i.e., 404, 1601, etc.) are not included in the scope of work and have been procured by others.
4. No designs for pavement overlays or other pavement rehabilitation of existing Laguna Canyon Road will be required.
5. Phase II hazardous waste assessments and implementation of environmental mitigation measures are not included in this scope of work.
6. It is understood the environmental documents and clearances have been prepared and obtained by others.
7. Agency plan check, project account, and inspection fees shall be paid by ICDC or others and will not be included in this contract.
8. Structural BMP facilities are not anticipated for the project. If facilities are necessary to satisfy environmental mitigation measures, an additional scope and fee will be determined.
9. No Storm Water Data Report (SWDR), Storm Water Pollution Prevention Plans (SWPPP), Water Pollution Control Plans (WPCP), Water Quality Management Plans (WQMP), or Erosion Control Plans are assumed to be required for this scope of work. If any of these items are required, an additional scope and fee will be negotiated with the Client, and no work will be conducted without prior authorization from the Client.

10. No geotechnical investigations or reports are assumed to be included in this scope of work.
11. Client shall contract separately with a right-of-way agent to facilitate right-of-way appraisal and acquisition services.
12. All right-of-way, boundary, centerline, easement, and property line information and data will be provided by or developed from record data.
13. High-risk underground utilities will be shown on the plans.
14. It is assumed that the IRWD 20-inch Recycled Waterline will be able to be constructed through an encroachment permit with Caltrans District 12 as a separate permit from the Technology Drive improvements.
15. No specific easements or right-of-way is assumed to be required through Caltrans Right-of-Way.
16. Client will be responsible for the development of all utility relocation agreements, and/or utility easement acquisition documents, negotiations with the utility companies for cost responsibility and processing the utility relocation agreements for signature approval by the utility company and the Client if utility relocations are required.
17. If required, CONSULTANT will be responsible for coordinating technical design issues with the utility company, reviewing utility relocation agreements to provide input and comment from a technical design standpoint and assisting in schedule management between Client and utility company as it relates to the overall design schedule.
18. Dry utility companies (including oil lines) will perform design work with their own forces in preparing final utility relocation plans if required. In addition, it has been assumed that the utility companies will be responsible for preparation of legal descriptions and exhibits for any interim utility relocations requiring temporary easements.
19. It is initially anticipated that no dry or wet utility relocations will be required. Any wet utility relocation will be prepared per an additional scope of work and fee.
20. Existing utilities will be shown on the plans per updated information obtained through existing as-built/record drawings as provided by the utility companies, the City, IRWD, field potholing data (if potholes are performed), and field survey data.



**TASK/HOUR BREAKDOWN**  
**Irvine Company Community Development**  
**IRWD 20 inch Recycled Waterline**  
**Capital Facility**

#####  
 PN: 138836

TASK	DESCRIPTION	NO. OF SHEETS		TOTAL	
		Shts	Hours	Sub \$	Total \$
1.00	Research and Base Data Review		24		\$ 3,696
2.00	Field Surveying		80		\$ 14,808
3.00	Utility Investigation, Potholing, and Coordination		164		\$ 24,972
4.00	Preliminary Design Report		156		\$ 20,184
5.00	Final Engineering Plans		702		\$ 91,892
5.01	Title Sheet	1	18	\$ 2,520	
5.02	General Notes Sheet	1	28	\$ 3,676	
5.03	Index Map and Construction Notes Sheet	1	40	\$ 5,040	
5.04	20 in. Recycled Water Line Plan and Profile Sheets	7	320	\$ 41,912	
5.05	Pipeline Connection, Jack and Bore, and Miscellaneous Detail Sheets	2	128	\$ 16,376	
5.06	Traffic Control Plan and Detail Sheets	7	168	\$ 22,368	
6.00	Storm Drain Realignment Analysis and Design Modifications		156		\$ 20,184
7.00	Storm Drain Hydrology and Hydraulics Report Revisions		40		\$ 5,680
8.00	Right of Way Engineering		76		\$ 12,540
9.00	Engineering Cost Estimate		52		\$ 7,772
10.00	Technical Specifications		38		\$ 6,548
11.00	Railroad Coordination and Permitting		128		\$ 18,352
12.00	Caltrans Encroachment Permit and City of Irvine Permit Processing		124		\$ 17,676
13.00	Plan Check Revisions and Approvals		76		\$ 9,796
14.00	Project Meetings		40		\$ 8,360
15.00	Project Management and Coordination		100		\$ 21,220
<b>SUBTOTAL</b>		<b>19</b>	<b>1956</b>		<b>\$283,680</b>
	Reimbursables				\$ 5,000
<b>TOTAL</b>		<b>19</b>	<b>1956</b>		<b>\$288,680</b>

December 15, 2014  
Prepared by: Tony Mossbarger  
Submitted by: Cheryl Clary  
Approved by: Paul Cook 

CONSENT CALENDAR

UTILITY BILLING SOFTWARE IMPLEMENTATION VARIANCE APPROVAL

SUMMARY:

The District's implementation of the Oracle Customer Care and Billing (CC&B) software system, which replaced the District's legacy utility billing and customer service system, was completed in October 2014. Staff has identified additional effort which was not included in the original scope, to develop interface functions, reports, and a Customer Contact portal. Staff recommends that the Board authorize the General Manager to execute Variance No. 16 in the amount of \$4,400, Variance No. 17 in the amount of \$3,300, Variance No. 18 in the amount of \$4,125, and Variance No. 19 in the amount of \$6,600 with Infosys for additional services related to the Utility Billing Software Implementation. The variances are within the existing approved capital budget and require Board approval as the variances exceed the General Manager's contract signing authority of \$100,000.

BACKGROUND:

The Utility Billing Software Implementation project was awarded to Infosys in February 2013 for \$4,975,000. The project began in April, 2013 and went live in August 2014. This following is a summary of the variances for the consulting contract with Infosys:

Variations No. 2 through 15:

Variance No. 2 in the amount of \$110,000 was approved by the Board in November 2013. Variations No. 3 through 15 totaling \$98,740 were approved under the General Manager's signature authority.

Variance No. 16:

Staff has identified the need to include additional interface functions required to send eBill data to Fiserv, the District's electronic billing and payment processing partner. This variance is for an amount of \$4,400.

Variance No. 17:

Staff has identified the need to provide a Daily Payment report used by the Finance Department to monitor payment activity. This variance is for an amount of \$3,300.

Variance No. 18:

Staff has identified the need to include a Customer Contacts portal that will streamline access by Customer service staff to manage customer contact information. This variance is for an amount of \$4,125.

Variance No. 19:

Staff has identified the need to provide changes to the Cross Connection function and a Development Services report. The Cross Connection function will provide the flexibility to send backflow device inspection notices to customers with a large volume of devices in the appropriate order. The Development Services report will provide staff with monthly statistics such as applications for service and development units released for occupancy. This information is currently prepared manually. This variance is for an amount of \$6,600.

The variances described above are all included in Exhibit "A".

FISCAL IMPACTS:

The Utility Billing Software Implementation project, Projects 11615 (3236) and 21615 (3237), are included in the FY 2014-15 Capital Budget. The existing budget and Expenditure Authorization are sufficient to fund Variances No. 16 through 19, totaling \$18,425 with Infosys.

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 9, 2014.

RECOMMENDATION:

THAT THE BOARD TO AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 16, IN THE AMOUNT OF \$4,400, VARIANCE NO. 17 IN THE AMOUNT OF \$3,300, VARIANCE NO. 18 IN THE AMOUNT OF \$4,125, AND VARIANCE NO. 19 IN THE AMOUNT OF \$6,600 WITH INFOSYS FOR ADDITIONAL IMPLEMENTATION SERVICES FOR THE UTILITY BILLING SOFTWARE IMPLEMENTATION, PROJECTS 11615 (3236) AND 21615 (3237).

LIST OF EXHIBITS:

Exhibit "A" – Infosys Implementation Services Variance No. 16, 17, 18, and 19

## EXHIBIT 'A'

## IRVINE RANCH WATER DISTRICT

## PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: <b>System Integration Services to Implement a Comprehensive Customer Care &amp; Billing Solution</b>				
Project No.: <u>3236/3237</u> Project Manager: <u>Tony Mossbarger</u>				
Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
1	Rearrange Functional and Technical Design Phase Task Schedule	10/01/2013	10/03/2013	\$0.00
2	Implementation of Backflow Test Tracking, Cross Connection Site Surveys, and On-site Inspection tasks.	10/07/2013	11/13/2013	\$110,000.00
3	FiServ eBill XML format change.	05/06/2014	06/09/2014	\$5,200.00
4	Non-Residential customer collection process changes	05/27/2014	06/09/2014	\$15,000.00
5	Data identification activities for UAT	06/06/2014	06/09/2014	\$5,000.00
6	CPP Short Form, Cross Connection Address, and WUE Portal Reports	07/08/2014	07/28/2014	\$19,800.00
7	Development Services Custom Case Portal changes and WUE additional reports	07/08/2014	07/28/2014	\$10,800.00
8	Additional changes to Water Use Efficiency Reports	08/28/2014	09/11/2014	\$5,500.00
9	Update HCOA Link for Mail Processing	08/28/2014	09/11/2014	\$12,800.00
10	Develop a Field Activity report	08/28/2014	09/11/2014	\$4,800.00
11	Changes to Development Services Application	08/28/2014	09/11/2014	\$13,680.00
12	Miscellaneous changes to the CC&B Application	08/28/2014	09/11/2014	\$1,200.00

EXHIBIT 'A'

IRVINE RANCH WATER DISTRICT

PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: <b>System Integration Services to Implement a Comprehensive Customer Care &amp; Billing Solution</b>				
Project No.: <u>3236/3237</u> Project Manager: <u>Tony Mossbarger</u>				
Variance No.	Description	Dates		Variance Amount
		Initiated	Approved	
14	Development Services Edits to Meter Application Form	9/24/2014	10/15/2014	\$2,400.00
15	Development Services Edits to Various Forms	9/24/2014	10/15/2014	\$2,560.00
16	Changes to Send 2050INA records to Fiserv	9/24/2014	Pending	\$4,400.00
17	Daily Payment Report.	9/24/2014	Pending	\$3,300.00
18	Customer Contacts Portal	9/24/2014	Pending	\$4,125.00
19	Changes to Cross-Connection and a Development Services report	10/02/2014	Pending	\$6,600.00
				\$227,165.00

EXHIBIT 'A'

IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE

Project: System Integration Services to Implement a Comprehensive Customer Care & Billing Solution

Project No.: 3236/3237 Date: 9/24/2014

Purchase Order No.: 512980 Variance No.: 16

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

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

This is a variance request for Changes to Send 2050INA records to Fiserv.

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Changes to Send 2050INA records to Fiserv				4,400		4,400
<b>Total \$ =</b>						<b>4,400</b>

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule

Required Approval Determination:

Total Original Contract	\$ <u>4,975,000.00</u>	<input checked="" type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input type="checkbox"/> Board: Single Variance greater than \$60,000. <input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.
Previous Variances	\$ <u>208,740.00</u>	
This Variance	\$ <u>4,400.00</u>	
Total Sum of Variances	\$ <u>213,140.00</u>	
New Contract Amount	\$ <u>5,188,140.00</u>	
Percentage of Total Variances to Original Contract	<u>4.3 %</u>	

ENGINEER/CONSULTANT: INFOSYS LIMITED

IRVINE RANCH WATER DISTRICT

Company Name

Saurabh Kumar  
Project Engineer/Manager

10/6/2014  
Date

Tony Mossbarger  
Department Director

10-6-2014  
Date

Engineer's/Consultant's Management

Date

General Manager/Comm./Board

Date

## EXHIBIT 'A'

### 1. Engineering and cost impact

No	Classification	Man hours	Billing rate	Labor \$	Direct costs	Subcon \$	Total \$	Comments
1	2050INA record to Fiserv	NA	NA	\$4,400 Services	NA	NA	\$4,400 services	Changes need to be done to send 2050INA record to Fiserv

### 2. Schedule impact

Task no	Task description	Original schedule	Schedule variance	New schedule
1	Creation of new milestone M13B for Fiserv 2050INA			10/24/2014

### 3. Impact to project deliverables – please refer to 3 sheets given in the attached xls.

EXHIBIT 'A'

Milestone	Description	Planned Date	Contract Amount	Change Order Amount	Contract Amount (USD)			
M0	Contract Completion & Mobilization	12-Apr-13	\$150,000.00	\$	\$150,000.00			
M1	Initiation Complete	25-Apr-13	\$254,000.00	\$25,400.00	\$228,600.00			
M2	Functional Workshop	11-Jul-13	\$404,000.00	\$40,400.00	\$363,600.00			
M3	Design Phase 1 : Functional & Technical Specifications (64 ICE Objects)	2-Sep-13	\$304,000.00	\$30,400.00	\$273,600.00			
M4	Design Phase 2 : Functional & Technical Specifications (44 ICE Objects)	4-Nov-13	\$304,000.00	\$30,400.00	\$273,600.00			
M4A	Design Phase 3 : Functional & Technical Specifications (64 report Objects)	20-Jan-14	\$200,000.00	\$20,000.00	\$180,000.00			
M4B	Analysis & Design : Cross Connection testing	15-Dec-13	\$40,000.00	\$4,000.00	\$36,000.00			
M5	Data Migration Design Completion	30-Dec-13	\$406,000.00	\$40,600.00	\$365,400.00			
M6	Solution Configuration + Build (ICE Objects)	26-Feb-14	\$622,500.00	\$62,250.00	\$560,250.00			
M6A	Solution Configuration + Build (Reports)	14-Mar-14	\$200,000.00	\$20,000.00	\$180,000.00			
M7	Completion of ST	2-Apr-14	\$595,500.00	\$59,550.00	\$535,950.00			
M8	Completion of SIT	5-May-14	\$671,000.00	\$67,100.00	\$603,900.00			
M8A	SIT completion of Fiserv interface – with updated Fiserv XML format	2-Jun-14	\$5,200.00	\$0.00	\$5,200.00			
M9	Completion of UAT	30-Jun-14	\$395,000.00	\$39,500.00	\$355,500.00			
M9A	Customer Service Change requests - Ringclear	30-Jun-14	\$15,000.00	\$0.00	\$15,000.00			
M9B	UAT data identification	30-Jun-14	\$5,000.00	\$0.00	\$5,000.00			
M10	Go Live	4-Aug-14	\$277,500.00	\$27,750.00	\$249,750.00			
M10A	CPP report changes + Water efficiency portal + Cross connection changes + Water efficiency 5 years history report	4-Aug-14	\$19,800.00	\$0.00	\$19,800.00			
M11	Completion of Warranty Support - Month 1	29-Aug-14	\$105,500.00	\$10,550.00	\$94,950.00			
M11A	Development services changes + WUE reports	26-Sep-14	\$10,800.00	\$0.00	\$10,800.00			
M11B	Additional changes to WUE reports	26-Sep-14	\$5,500.00	\$0.00	\$5,500.00			
M12	Completion of Warranty Support - Month 2	26-Sep-14	\$79,000.00	\$7,900.00	\$71,100.00			
M12A	NCOA link update	26-Sep-14	\$12,800.00	\$0.00	\$12,800.00			
M12B	Field activity report	26-Sep-14	\$4,800.00	\$0.00	\$4,800.00			
M12C	Development services changes - 1	26-Sep-14	\$6,000.00	\$0.00	\$6,000.00			
M12D	Development services changes - 2	26-Sep-14	\$7,680.00	\$0.00	\$7,680.00			
M12E	Misc changes	26-Sep-14	\$1,200.00	\$0.00	\$1,200.00			
M12F	Development services edits	26-Sep-14	\$2,400.00	\$0.00	\$2,400.00			
M13	Completion of Warranty Support - Month 3	24-Oct-14	\$77,000.00	\$7,700.00	\$69,300.00			
M13A	Development services edits- misc	24-Oct-14	\$2,560.00	\$0.00	\$2,560.00			
M13B	ZOSCINA for Fiserv	24-Oct-14	\$4,400.00	\$0.00	\$4,400.00			
M13C	Daily Payment Details Report	24-Oct-14	\$9,300.00	\$0.00	\$9,300.00			
M13D	New portal for customer contacts	24-Oct-14	\$4,125.00	\$0.00	\$4,125.00			
M14	Final Acceptance	24-Oct-14			\$493,500			
	TOTALS		\$5,195,565.00	\$493,500.00	\$5,195,565.00			

EXHIBIT 'A'

IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE

Project: System Integration Services to Implement a Comprehensive Customer Care & Billing Solution

Project No.: \_\_\_\_\_ 3236/3237 \_\_\_\_\_ Date: 9/24/2014

Purchase Order No.: \_\_\_\_\_ 512980 \_\_\_\_\_ Variance No.: 17

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

Description of Variance (*attach any back-up material*):  
This is a variance request for Changes to Create a Daily Payment Report.  
Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Daily Payment Report.				3,300		3,300
<b>Total \$ =</b>						3,300

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule

Required Approval Determination:

Total Original Contract	<u>\$ 4,975,000.00</u>	<input checked="" type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input type="checkbox"/> Board: Single Variance greater than \$60,000. <input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.
Previous Variances	\$ <u>213,140.00</u>	
This Variance	\$ <u>3,300.00</u>	
Total Sum of Variances	\$ <u>216,440.00</u>	
New Contract Amount	\$ <u>5,191,440.00</u>	
Percentage of Total Variances to Original Contract	4.3 %	

ENGINEER/CONSULTANT: INFOSYS LIMITED

IRVINE RANCH WATER DISTRICT

Company Name

Saurabh Kumar  
Project Engineer/Manager

10/6/2014  
Date

Tony Mossbarger  
Department Director

10-6-2014  
Date

Saurabh Kumar  
Engineer's/Consultant's Management

Date

General Manager/Comm./Board

Date

## EXHIBIT 'A'

### 1. Engineering and cost impact

No	Classification	Man hours	Billing rate	Labor \$	Direct costs	Subcon \$	Total \$	Comments
1	Daily payment report	NA	NA	\$3,300 Services	NA	NA	\$3,300 services	Development/testing/implementation of Daily Payment Details Report

### 2. Schedule impact

Task no	Task description	Original schedule	Schedule variance	New schedule
1	Creation of new milestone M13C for Dally payment report			10/24/2014

### 3. Impact to project deliverables – please refer to 3 sheets given in the attached xls.

EXHIBIT 'A'

M#	Description	Milestone Date	Subtotal Amount	Change Order Amount	Net Payment (\$K)	Received Date	Approved Date	Final Date
M0	Contract Completion & Mobilization	12-Apr-13	\$150,000.00	\$ -	\$150,000.00			
M1	Initiation Complete	25-Apr-13	\$254,000.00	\$25,400.00	\$228,600.00			
M2	Functional Workshop	11-Jul-13	\$404,000.00	\$40,400.00	\$363,600.00			
M3	Design Phase 1 : Functional & Technical Specifications (64 ICE Objects)	2-Sep-13	\$304,000.00	\$30,400.00	\$273,600.00			
M4	Design Phase 2 : Functional & Technical Specifications (44 ICE Objects)	4-Nov-13	\$304,000.00	\$30,400.00	\$273,600.00			
M4A	Design Phase 3 : Functional & Technical Specifications (64 report Objects)	20-Jan-14	\$200,000.00	\$20,000.00	\$180,000.00			
M4B	Analysis & Design : Cross Connection testing	15-Dec-13	\$40,000.00	\$4,000.00	\$36,000.00			
M5	Data Migration Design Completion	30-Dec-13	\$406,000.00	\$40,600.00	\$365,400.00			
M6	Solution Configuration + Build (ICE Objects)	26-Feb-14	\$622,500.00	\$62,250.00	\$560,250.00			
M6A	Solution Configuration + Build (Reports)	14-Mar-14	\$200,000.00	\$20,000.00	\$180,000.00			
M7	Completion of ST	2-Apr-14	\$595,500.00	\$59,550.00	\$535,950.00			
M8	Completion of SIT	5-May-14	\$671,000.00	\$67,100.00	\$603,900.00			
M8A	SIT completion of Fiserv interface – with updated FIServ XML format	2-Jun-14	\$5,200.00	\$0.00	\$5,200.00			
M9	Completion of UAT	30-Jun-14	\$395,000.00	\$39,500.00	\$355,500.00			
M9A	Customer Service Change requests - Ringclear	30-Jun-14	\$15,000.00	\$0.00	\$15,000.00			
M9B	UAT data identification	30-Jun-14	\$5,000.00	\$0.00	\$5,000.00			
M10	Go Live	4-Aug-14	\$277,500.00	\$27,750.00	\$249,750.00			
M10A	CPP report changes + Water efficiency portal + Cross connection changes + Water efficiency 5 years history report	4-Aug-14	\$19,800.00	\$0.00	\$19,800.00			
M11	Completion of Warranty Support - Month 1	29-Aug-14	\$105,500.00	\$10,550.00	\$94,950.00			
M11A	Development services changes + WUE reports	26-Sep-14	\$10,800.00	\$0.00	\$10,800.00			
M11B	Additional changes to WUE reports	26-Sep-14	\$5,500.00	\$0.00	\$5,500.00			
M12	Completion of Warranty Support - Month 2	26-Sep-14	\$79,000.00	\$7,900.00	\$71,100.00			
M12A	NCOA link update	26-Sep-14	\$12,800.00	\$0.00	\$12,800.00			
M12B	Field activity report	26-Sep-14	\$4,800.00	\$0.00	\$4,800.00			
M12C	Development services changes - 1	26-Sep-14	\$6,000.00	\$0.00	\$6,000.00			
M12D	Development services changes - 2	26-Sep-14	\$7,680.00	\$0.00	\$7,680.00			
M12E	Misc changes	26-Sep-14	\$1,200.00	\$0.00	\$1,200.00			
M12F	Development services edits	26-Sep-14	\$1,400.00	\$0.00	\$1,400.00			
M13	Completion of Warranty Support - Month 3	24-Oct-14	\$77,000.00	\$7,700.00	\$69,300.00			
M13A	Development services edits - misc	24-Oct-14	\$2,560.00	\$0.00	\$2,560.00			
M13B	2050INA for Fiserv	24-Oct-14	\$4,400.00	\$0.00	\$4,400.00			
M13C	Daily Payment Details Report	24-Oct-14	\$3,300.00	\$0.00	\$3,300.00			
M13D	New portal for customer contacts	24-Oct-14	\$4,125.00	\$0.00	\$4,125.00			
M14	Final Acceptance	24-Oct-14			\$493,500			
	TOTALS		\$5,195,565.00	\$493,500.00	\$5,195,565.00			

EXHIBIT 'A'

IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE

Project: System Integration Services to Implement a Comprehensive Customer Care & Billing Solution

Project No.: \_\_\_\_\_ 3236/3237 \_\_\_\_\_ Date: \_\_\_\_\_ 9/24/2014

Purchase Order No.: \_\_\_\_\_ 512980 \_\_\_\_\_ Variance No.: 18

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

Description of Variance (*attach any back-up material*):  
This is a variance request for Changes to Create a New Customer Contact Portal.  
Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
New customer contacts portal.				4,125		4,125
<b>Total \$ =</b>						<b>4,125</b>

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule

Required Approval Determination:

Total Original Contract	\$ <u>4,975,000.00</u>	<input checked="" type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input type="checkbox"/> Board: Single Variance greater than \$60,000. <input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.
Previous Variances	\$ <u>216,440.00</u>	
This Variance	\$ <u>4,125.00</u>	
Total Sum of Variances	\$ <u>220,565.00</u>	
New Contract Amount	\$ <u>5,195,565.00</u>	
Percentage of Total Variances to Original Contract	4.4 %	

ENGINEER/CONSULTANT: INFOSYS LIMITED

IRVINE RANCH WATER DISTRICT

Company Name

Saurabh Kumar  
Project Engineer/Manager

10/6/2014  
Date

Tony Mossharger  
Department Director

10-6-2014  
Date

Engineer's/Consultant's Management

Date

General Manager/Comm./Board

Date

## EXHIBIT 'A'

### 1. Engineering and cost impact

No	Classification	Man hours	Billing rate	Labor \$	Direct costs	Subcon \$	Total \$	Comments
1	New portal for customer contacts	NA	NA	\$4,125 Services	NA	NA	\$4,125 services	Development/testing/Implementation of New portal for customer contacts

### 2. Schedule impact

Task no	Task description	Original schedule	Schedule variance	New schedule
1	Creation of new milestone M13D for New portal for customer contacts			10/24/2014

### 3. Impact to project deliverables – please refer to 3 sheets given in the attached xls.

EXHIBIT 'A'

Item	Description	Start Date	Original Budget	Actual Cost	Remaining Budget	Actual Cost	Remaining Budget
M0	Contract Completion & Mobilization	12-Apr-13	\$150,000.00	\$	\$150,000.00		
M1	Initiation Complete	25-Apr-13	\$254,000.00	\$25,400.00	\$228,600.00		
M2	Functional Workshop	11-Jul-13	\$404,000.00	\$40,400.00	\$363,600.00		
M3	Design Phase 1 : Functional & Technical Specifications (54 ICE Objects)	2-Sep-13	\$304,000.00	\$30,400.00	\$273,600.00		
M4	Design Phase 2 : Functional & Technical Specifications (44 ICE Objects)	4-Nov-13	\$304,000.00	\$30,400.00	\$273,600.00		
M4A	Design Phase 3 : Functional & Technical Specifications (64 report Objects)	20-Jan-14	\$200,000.00	\$20,000.00	\$180,000.00		
M4B	Analysis & Design : Cross Connection testing	15-Dec-13	\$40,000.00	\$4,000.00	\$36,000.00		
M5	Data Migration Design Completion	30-Dec-13	\$406,000.00	\$40,600.00	\$365,400.00		
M6	Solution Configuration + Build (ICE Objects)	26-Feb-14	\$622,500.00	\$62,250.00	\$560,250.00		
M6A	Solution Configuration + Build (Reports)	14-Mar-14	\$200,000.00	\$20,000.00	\$180,000.00		
M7	Completion of ST	2-Apr-14	\$595,500.00	\$59,550.00	\$535,950.00		
M8	Completion of SIT	5-May-14	\$671,000.00	\$67,100.00	\$603,900.00		
M8A	SIT completion of Fiserv interface – with updated Fiserv XML format	2-Jun-14	\$5,200.00	\$0.00	\$5,200.00		
M9	Completion of UAT	30-Jun-14	\$395,000.00	\$39,500.00	\$355,500.00		
M9A	Customer Service Change requests - Ringclear	30-Jun-14	\$15,000.00	\$0.00	\$15,000.00		
M9B	UAT data identification	30-Jun-14	\$5,000.00	\$0.00	\$5,000.00		
M10	Go Live	4-Aug-14	\$277,500.00	\$27,750.00	\$249,750.00		
M10A	CPP report changes + Water efficiency portal + Cross connection changes + Water efficiency 5 years history report	4-Aug-14	\$19,800.00	\$0.00	\$19,800.00		
M11	Completion of Warranty Support - Month 1	29-Aug-14	\$105,500.00	\$10,550.00	\$94,950.00		
M11A	Development services changes + WUE reports	26-Sep-14	\$10,800.00	\$0.00	\$10,800.00		
M11B	Additional changes to WUE reports	26-Sep-14	\$5,500.00	\$0.00	\$5,500.00		
M12	Completion of Warranty Support - Month 2	26-Sep-14	\$79,000.00	\$7,900.00	\$71,100.00		
M12A	NCOA link update	26-Sep-14	\$12,800.00	\$0.00	\$12,800.00		
M12B	Field activity report	26-Sep-14	\$4,800.00	\$0.00	\$4,800.00		
M12C	Development services changes - 1	26-Sep-14	\$6,000.00	\$0.00	\$6,000.00		
M12D	Development services changes - 2	26-Sep-14	\$7,680.00	\$0.00	\$7,680.00		
M12E	Misc changes	26-Sep-14	\$1,200.00	\$0.00	\$1,200.00		
M12F	Development services edits	26-Sep-14	\$2,400.00	\$0.00	\$2,400.00		
M13	Completion of Warranty Support - Month 3	24-Oct-14	\$77,000.00	\$7,700.00	\$69,300.00		
M13A	Development services edits - misc	24-Oct-14	\$2,560.00	\$0.00	\$2,560.00		
M13B	2050INA for Fiserv	24-Oct-14	\$4,400.00	\$0.00	\$4,400.00		
M13C	Disty Payment Details Report	24-Oct-14	\$3,300.00	\$0.00	\$3,300.00		
M13D	New portal for customer contacts	24-Oct-14	\$4,125.00	\$0.00	\$4,125.00		
M14	Final Acceptance	24-Oct-14			\$493,500		
	TOTALS		\$5,195,565.00	\$493,500.00	\$5,195,565.00		

EXHIBIT 'A'

IRVINE RANCH WATER DISTRICT  
PROFESSIONAL SERVICES VARIANCE

Project: System Integration Services to Implement a Comprehensive Customer Care & Billing Solution

Project No.: \_\_\_\_\_ 3236/3237 \_\_\_\_\_ Date: 10/02/2014

Purchase Order No.: \_\_\_\_\_ 512980 \_\_\_\_\_ Variance No.: 19

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

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

This is a variance request for Changes to Cross-Connection and a Development Services Report.

Engineering & Management Cost Impact:

Classification	Manhours	Billing Rate	Labor \$	Direct Costs	Subcon. \$	Total \$
Changes to Cross-Connection (Person Name)				3,300		3,300
Development Services Report				3,300		3,300
<b>Total \$ =</b>						<b>6,600</b>

Schedule Impact:

Task No.	Task Description	Original Schedule	Schedule Variance	New Schedule

Required Approval Determination:

Total Original Contract	\$ <u>4,975,000.00</u>	<input checked="" type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. <input type="checkbox"/> Board: Single Variance greater than \$60,000. <input type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher.
Previous Variances	\$ <u>220,565.00</u>	
This Variance	\$ <u>6,600.00</u>	
Total Sum of Variances	\$ <u>227,165.00</u>	
New Contract Amount	\$ <u>5,202,165.00</u>	
Percentage of Total Variances to Original Contract	4.5 %	

ENGINEER/CONSULTANT: INFOSYS LIMITED

IRVINE RANCH WATER DISTRICT

Company Name

Saurabh Kumar  
Project Engineer/Manager

10/6/2014  
Date

Tony Mossbarger  
Department Director

10-6-2014  
Date

Saurabh Kumar  
Engineer's/Consultant's Management

\_\_\_\_\_ Date

\_\_\_\_\_ General Manager/Comm./Board

\_\_\_\_\_ Date

**EXHIBIT 'A'**

**1. Engineering and cost impact**

No	Classification	Man hours	Billing rate	Labor \$	Direct costs	Subcon \$	Total \$	Comments
1	Cross connection (person name)	NA	NA	\$3,300 Services	NA	NA	\$3,300 services	Development/testing/implementation of change for Cross connection (person name)
2	Dev services report	NA	NA	\$3,300 Services	NA	NA	\$3,300 services	Development/testing/implementation of Dev services report

**2. Schedule impact**

Task no	Task description	Original schedule	Schedule variance	New schedule
1	Creation of new milestone M13E for Development/testing/implementation of Cross connection (person name) + Dev services report			10/24/2014

**3. Impact to project deliverables – please refer to 3 sheets given in the attached xls.**

EXHIBIT 'A'

Milestone	Description	Milestone Date	Contract Amount	ICE/Other Amount	Net Payment (\$K)	Contract Bal.	Project Date	Paid Date
M0	Contract Completion & Mobilization	12-Apr-13	\$150,000.00	\$	\$150,000.00			
M1	Initiation Complete	25-Apr-13	\$254,000.00	\$25,400.00	\$228,600.00			
M2	Functional Workshop	11-Jul-13	\$404,000.00	\$40,400.00	\$363,600.00			
M3	Design Phase 1 : Functional & Technical Specifications (64 ICE Objects)	2-Sep-13	\$304,000.00	\$30,400.00	\$273,600.00			
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M4A	Design Phase 3 : Functional & Technical Specifications (64 report Objects)	20-Jan-14	\$200,000.00	\$20,000.00	\$180,000.00			
M4B	Analysis & Design : Cross Connection testing	15-Dec-13	\$40,000.00	\$4,000.00	\$36,000.00			
M5	Data Migration Design Completion	30-Dec-13	\$406,000.00	\$40,600.00	\$365,400.00			
M6	Solution Configuration + Build (ICE Objects)	26-Feb-14	\$622,500.00	\$62,250.00	\$560,250.00			
M6A	Solution Configuration + Build (Reports)	14-Mar-14	\$200,000.00	\$20,000.00	\$180,000.00			
M7	Completion of ST	2-Apr-14	\$595,500.00	\$59,550.00	\$535,950.00			
M8	Completion of SIT	5-May-14	\$671,000.00	\$67,100.00	\$603,900.00			
M8A	SIT completion of Fiserv interface -- with updated FIServ XML format	2-Jun-14	\$5,200.00	\$0.00	\$5,200.00			
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M9B	UAT data identification	30-Jun-14	\$5,000.00	\$0.00	\$5,000.00			
M10	Go Live	4-Aug-14	\$277,500.00	\$27,750.00	\$249,750.00			
M10A	CPP report changes + Water efficiency portal + Cross connection changes + Water efficiency 5 years history report	4-Aug-14	\$19,800.00	\$0.00	\$19,800.00			
M11	Completion of Warranty Support - Month 1	29-Aug-14	\$105,500.00	\$10,550.00	\$94,950.00			
M11A	Development services changes + WUE reports	26-Sep-14	\$10,800.00	\$0.00	\$10,800.00			
M11B	Additional changes to WUE reports	26-Sep-14	\$5,500.00	\$0.00	\$5,500.00			
M12	Completion of Warranty Support - Month 2	26-Sep-14	\$79,000.00	\$7,900.00	\$71,100.00			
M12A	NCOA link update	26-Sep-14	\$12,800.00	\$0.00	\$12,800.00			
M12B	Field activity report	26-Sep-14	\$4,800.00	\$0.00	\$4,800.00			
M12C	Development services changes - 1	26-Sep-14	\$6,000.00	\$0.00	\$6,000.00			
M12D	Development services changes - 2	26-Sep-14	\$7,680.00	\$0.00	\$7,680.00			
M12E	Misc changes	26-Sep-14	\$1,200.00	\$0.00	\$1,200.00			
M12F	Development services edits	26-Sep-14	\$2,400.00	\$0.00	\$2,400.00			
M13	Completion of Warranty Support - Month 3	24-Oct-14	\$77,000.00	\$7,700.00	\$69,300.00			
M13A	Development services edits - misc	24-Oct-14	\$2,560.00	\$0.00	\$2,560.00			
M13B	2050/INA for Fiserv	24-Oct-14	\$4,400.00	\$0.00	\$4,400.00			
M13C	Daily Payment Details Report	24-Oct-14	\$3,300.00	\$0.00	\$3,300.00			
M13D	New portal for customer contacts	24-Oct-14	\$4,125.00	\$0.00	\$4,125.00			
M13E	Cross connection (person name) + Dev services report	24-Oct-14	\$6,600.00	\$0.00	\$6,600.00			
M14	Final Acceptance	24-Oct-14			\$493,500			
	TOTALS		\$5,202,165.00	\$493,500.00	\$5,202,165.00			

December 15, 2014

Prepared by: D. Johnson/A. McNulty

Submitted by: F. Sanchez/P. Weghorst 

Approved by: Paul Cook 

## ACTION CALENDAR

### 2014 WATER-ENERGY GRANT PROGRAM APPLICATION

#### SUMMARY:

The Department of Water Resources (DWR) is seeking applications for grant funding under its 2014 Water-Energy Grant Program. The goal of the program is to fund projects that reduce both water and energy use. Staff is preparing an application for a Water and Energy Residential Resource Savings Program which is a device install program that will be implemented in partnership with Southern California Gas Company (SCG) and Southern California Edison (SCE). As part of the application process, DWR requires a resolution adopted by each applicant's governing body, designating an authorized representative to submit a proposal for a grant and to enter into an agreement to receive the funding. Staff recommends that the Board adopt a resolution authorizing staff to file an application with the California Department of Water Resources for 2014 Water-Energy Grant Program funding and the General Manager to execute a related agreement with the State of California.

#### BACKGROUND:

DWR has \$19 million in approved funding to distribute to applicants to its 2014 Water-Energy Grant Program. The maximum grant award is \$2.5 million per proposal and the maximum per applicant is \$5 million. There is no minimum cost-share requirement for each grant. The due date for grant funding applications is December 12, 2014. As part of the application process, DWR requires a resolution adopted by each applicant's governing body that designates an authorized representative to submit an application for a grant and to enter into an agreement with the State of California to receive the funding. All projects accepted by DWR must save water, save energy and reduce GHG emissions.

#### Water and Energy Savings Program:

Staff has evaluated several potential projects for grant funding and determined that a water use efficiency and energy savings program best meets the eligibility criteria. Staff is preparing a grant application for the Water and Energy Residential Resource Savings Program that will request up to \$2.5 million in funding from DWR. The proposed program is an efficiency partnership with SCG and SCE, and will optimize each of the utilities' best practices by using one contractor to perform direct installs of water, gas and energy efficiency devices and technologies to enhance the overall efficiency of each participating residence. This program will help IRWD customers save water, gas, and electricity by maximizing the water and energy efficiency measures of each household. IRWD staff will work closely with SCG and SCE representatives to target customers and to evaluate the water and energy savings opportunities. Staff anticipates that up to 5,700 single-family and multi-family dwelling units may enroll in the program.

In compliance with DWR requirements, a resolution has been prepared authorizing staff to submit an application to DWR for the proposed Water and Energy Residential Resource Savings Program and the General Manager to execute an agreement for the District to receive grant funding. The required resolution is attached as Exhibit "A".

FISCAL IMPACTS:

Not applicable.

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 15061 (b) (3). The activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Policy and Communications committee on December 8, 2014.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2014 –

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT AUTHORIZING  
STAFF TO FILE AN APPLICATION WITH THE  
CALIFORNIA DEPARTMENT OF WATER RESOURCES  
FOR 2014 WATER-ENERGY GRANT PROGRAM FUNDING  
AND AUTHORIZING THE GENERAL MANAGER TO  
EXECUTE A RELATED AGREEMENT WITH THE  
STATE OF CALIFORNIA.

LIST OF EXHIBITS:

Exhibit "A" – Resolution Authorizing Submission of an Application for 2014 Water-Energy Grant Funding

EXHIBIT "A"

RESOLUTION NO. 2014-

RESOLUTION OF THE BOARD OF DIRECTORS OF  
IRVINE RANCH WATER DISTRICT AUTHORIZING STAFF TO FILE AN APPLICATION  
WITH THE CALIFORNIA DEPARTMENT OF WATER RESOURCES FOR  
2014 WATER-ENERGY GRANT PROGRAM FUNDING AND  
THE GENERAL MANAGER TO EXECUTE A RELATED AGREEMENT WITH THE  
STATE OF CALIFORNIA

WHEREAS, the Irvine Ranch Water District has the authority to construct, operate, and maintain the Irvine Ranch Water District water system; and

WHEREAS, the Irvine Ranch Water District desires to enhance the use and efficiency of the drinking water supplied to the consumers of the Irvine Ranch Water District; and

NOW THEREFORE, BE IT RESOLVED: The Board of Directors of the Irvine Ranch Water District authorize the District to file an application with the California Department of Water Resources to obtain a 2014 Water-Energy Grant pursuant to Senate Bill No. 103 Section 11 (2013-2014 Regular Session), and to enter into an agreement to receive a grant for the Water and Energy Residential Resource Savings Program, and that the General Manager, or designee, of said Irvine Ranch Water District is hereby authorized and directed to cause the necessary data, conduct investigations, file such application, and execute a grant agreement and any amendments thereto, with California Department of Water Resources.

APPROVED, SIGNED and ADOPTED this 15th day of December 2014.

\_\_\_\_\_  
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

December 15, 2014

Prepared by: F. Sanchez

Submitted by: P. Weghorst *PW*

Approved by: Paul Cook *P. Cook*

## ACTION CALENDAR

### CONSULTANT SELECTION FOR WATER SUPPLY RELIABILITY STUDY AND MODEL DEVELOPMENT

#### SUMMARY:

Staff recommends updating and enhancing the District's 2008 Water Supply Reliability Study, developing a user-friendly Demand Adjustment Tool and implementing a System and Supply Reliability Model that can be used to evaluate the impacts of various supply and system interruption scenarios. A Request for Proposal (RFP) to perform the work was circulated and three proposals were received. Staff has carefully evaluated the proposals and recommends that the Board:

- Authorize the addition of Project 11808(6013) in the amount of \$496,900 to the FY2014-15 Capital Budget; and
- Authorize the General Manager to execute a Professional Services Agreement with HDR Engineering, Inc. in the amount of \$376,800 to update IRWD's Water Reliability Study, develop a Demand Adjustment Tool, and implement a System and Supply Reliability Model for Project 11808 (6013).

#### BACKGROUND:

In 2008 a Water Reliability Study was developed to assist the District with defining potable water reliability under different water supply and demand scenarios. The study included analyses of how imported water supply shortages, climate change, facility outages and emergencies could affect demands, supplies, and major conveyance facilities. This study was completed at a cost of approximately \$176,000. Recently, the District requested proposals for services required to update and enhance IRWD's water reliability analytical capabilities. The following is an overview of the 2008 study, considerations for updating and enhancing the study and recommendations for the selection of a consultant to perform the work.

#### Overview of 2008 Water Supply Reliability Study:

Interruptions to IRWD water supplies could result from events such as earthquakes, environmental restrictions or unplanned facility failures. The 2008 Water Supply Reliability Study revealed that there was an equal impact to IRWD's reliability as a result of environmental flow restrictions on the State Water Project (SWP) and climate change impacts on system demand and total imported water supply. When both of these constraints were considered with no new projects implemented, shortfalls in the IRWD system would occur nearly 90% of the time, averaging approximately 12,000 acre-feet per year (AFY), and ranging from zero up to 25,000 AFY. The 2008 study concluded that a minimum of 25,000 AFY of additional water supply should be developed to meet projected build-out demands.

Considerations for Reliability Study Update:

Since the development of the District's Water Supply Reliability Study in 2008, IRWD has implemented new projects that will result in a significant reduction in the need for the development of additional supplies that were identified in the 2008 study. The purpose of the proposed update to the Water Supply Reliability Study will be to re-evaluate the impacts of various supply and system interruption scenarios and to develop utilities to enhance the 2008 study. It will incorporate considerations of new and planned facilities, as well as other changes that have occurred since 2008, including but not limited to:

- Wells 21 and 22 Desalter Plant and the Baker Water Treatment Plant;
- IRWD's commitments to other agencies through emergency inter-ties;
- Updates to Metropolitan Water District's water supply reliability projections;
- IRWD's water banking projects in the Central Valley; and
- Other foreseeable regional water supply projects.

Other factors that were not considered in the 2008 study could offset the benefits of these projects include:

- Uncertainty in whether the alternative conveyance for the Bay Delta Conservation Plan (BDCP) will ever be permitted and constructed;
- Potential for long-term drought on the Colorado River;
- The risk of San Joaquin River Delta levee failures during a significant earthquake;
- Failure of the Edmonston Pumping Plant that is located near the south end of the California Aqueduct; and
- Potential reductions in flows available for recharge in the Orange County basin.

The study will be enhanced with the development of a user-friendly Demand Adjustment Tool that can be used to refine IRWD's demand projections through build-out based on factors such as long-term conservation and economic impacts that occur in various shortage and system scenarios. Another enhancement will be the development of modeling tools that will assist in IRWD's system and supply reliability planning efforts. Following is an overview of the consultant selection process for performing the required work.

Consultant Selection Process:

Staff issued an RFP and two related addendums to seven firms to prepare an updated and enhanced Water Reliability Study. Proposals were received from HDR, Carollo Engineers, Inc. and RMC Water and Environment. After completing a thorough evaluation of the written proposals and conducting interviews with each firm, staff recommends the selection of HDR to complete the work. HDR's approach will provide IRWD the ability to model impacts to system

and supply reliability under various shortage scenarios that extend far beyond the approaches proposed by RMC and Carollo. Key strengths of HDR’s proposal are as follows:

- HDR proposes a significantly enhanced approach beyond preparing a point-in-time snapshot of IRWD’s reliability that will allow IRWD to assess its system and supply reliability on an ongoing basis;
- HDR is teaming with DCSE who will serve as a major sub-consultant on the project. The HDR/DCSE team will build a Demand Adjustment Tool and an integrated System and Supply Reliability Model that will simulate and optimize IRWD supplies and storage under shortage scenarios;
- The development of the System and Supply Reliability Model will rely upon a model which DCSE originally developed for Metropolitan;
- The proposed System and Supply Reliability model could be used to identify the quantity of IRWD supplies that might be available to South County agencies through emergency inter-ties under various shortage scenarios;
- The HDR modeling approach will use Monte Carlo simulation methods to assess the probabilities and durations of the independent and combined risks of different shortage scenarios;
- The HDR/DCSE team will bring resources with specialized expertise in climate change, Colorado River and Bay-Delta issues, as well as past work, and strong relationships with the Department of Water Resources, Metropolitan, the Municipal Water District of Orange County and Orange County Water District that will be leveraged in this project; and
- Costs for preparation of the reliability study and Demand Adjustment Tool development portions of the work are competitive when compared to the other proposals. The development of the System and Supply Reliability Model in the HDR approach does require additional work, but provides a significant enhancement that will provide an ongoing benefit to IRWD.

Staff has prepared a consultant selection matrix which is attached as Exhibit “A”. HDR’s scope of work is attached as Exhibit “B”.

**FISCAL IMPACTS:**

Project 11808 (6013) is not included in the FY 2014-15 Capital Budget. Staff requests the addition of Project 11808 (6013) in the amount of \$496,900 which includes \$50,000 for staff time and \$5,000 for legal assistance as shown below.

Project No.	Current Budget	Addition <Reduction>	Total Budget
11808(6013)	\$-0-	\$496,900	\$496,900

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, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE ADDITION OF PROJECT 11808 (6013) TO THE FY 2014-15 CAPITAL BUDGET IN THE AMOUNT OF \$496,900, WHICH INCLUDES \$50,000 FOR STAFF TIME AND \$5,000 FOR LEGAL ASSISTANCE; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH HDR ENGINEERING, INC. IN THE AMOUNT OF \$376,800 TO CONDUCT THE WATER RELIABILITY STUDY, TO PREPARE A DEMAND ADJUSTMENT TOOL AND TO PREPARE A SYSTEM AND SUPPLY RELIABILITY MODEL.

LIST OF EXHIBITS:

Exhibit "A" – Consultant Selection Matrix  
Exhibit "B" – HDR's Scope of Work

EXHIBIT "A"  
CONSULTANT EVALUATION MATRIX  
Reliability Study Consultant Selection Matrix

Item	Description	Weights	Carollo	HDR	RMC		
A	<b>TECHNICAL APPROACH</b>	<b>60%</b>					
1	Adherence to RFP Requirements	10%	2	1	3		
2	Understanding of required services and project details	25%	3	1	2		
3	Approach and Methodology	45%	2	1	3		
4	Schedule	20%	1	3	2		
	<u>Weighted Score (Technical Approach)</u>		2.05	1.40	2.55		
B	<b>QUALIFICATIONS AND EXPERIENCE</b>	<b>40%</b>					
1	Project Manager	30%	1 Inge Wiersema, P.E. MS Eng., 19 yrs Exp	2 Jennifer Duffly, P.E. BS, 31 yrs Exp	3 Enrique Lopezcalva MS/MEng 17 yrs Exp		
2	Principal-in-Charge	10%	2 Jim Meyerhofer, P.E. 25 yrs Exp	3 David Ludwin, P.E. Not stated	1 Scott Goldman, P.E. MS, 31 yrs Exp		
2	Technical Leads	25%	2 Karen Johnson BA, 30 yrs Exp	1 Ben Porter, P.E. MS, 14 yrs Exp	3 Lyndel Mellon, P.E. MS, 38 yrs Exp		
			2 Tom West, P.E. MS, 20 yrs + Exp	1 Blaine Dwyer, P.E. MS, 34 yrs Exp	3 Persephene St Charles MA, 16 yrs Exp		
			2 Lou Carella, P.E. BS, 30 yrs+ Exp	1 Masoud Hoseyni, DCSE PhD, 30 yrs Exp	3 Dawn Flores MS, 7 yrs Exp		
3	Project Team Experience (sub and prime)	25%	3	1	2		
4	Firm's Relevant Experience (sub and prime)	10%	2	1	3		
	<u>Weighted Score (Experience)</u>		1.95	2	2.55		
	<b>COMBINED WEIGHTED SCORE</b>		2.01	1.44	2.55		
	<b>Ranking of Consultants</b>		<b>2</b>	<b>1</b>	<b>3</b>		
C	<b>SCOPE OF WORK</b>						
TASK		Task Hours	FEE	Task Hours	FEE	Task Hours	FEE
1	Project Management and Meetings	98	\$21,703	255	\$62,400	209	\$44,097
2	Develop Demand Tool and Forecast	178	\$29,037	246	\$39,200	24	\$43,829
3	Characterize Supplies	142	\$27,159	90	\$18,200	154	\$30,096
4	Define Supply Outage and System Disruption Scenarios	188	\$36,772	128	\$26,200	180	\$70,856
5	Identify Supply and System Requirements and Perform Modeling Work	156	\$30,477	730	\$130,600	238	\$52,349
6	Preliminary Recommendations - Presentation	14	\$8,937	64	\$15,100	30	\$6,820
7	Final Recommendations - Presentation	30	\$28,628	38	\$6,700	30	\$6,820
8	Deliverables (75%, 90%, 100% report)	230	\$15,765	298	\$51,400	148	\$30,360
9	License Fee plus tax						
10							
11							
	SUB-TOTAL ENGINEERING SERVICES, FEES (Does Not Include Optional Items)	1,036	\$198,476	1,851	\$348,800	1,013	\$284,827
15	Model license fee plus tax				\$27,000		\$20,000
	TOTAL ENGINEERING SERVICES, FEE	1,036	\$198,476	1,851	\$376,800	1,013	\$304,827
	Average Hourly Rate	Avg \$/hr	\$192		\$189		\$281
D	<b>OTHER</b>						
	Miscellaneous Items						
	Multiplier			3.1			
	Conflict of Interest	No	No	No	No	No	No
	Joint Venture	No	No	No	No	No	No
	Scope of Work Exclusions	No	No	No	No	No	No
	Exceptions taken to IRWD Std Contract	No	No	No	No	No	No
	Insurance (Professional & General Liability)	Yes	Yes	Yes	Yes	Yes	Yes

# 1 Scope

## Scope of Work

Based on our understanding of the project, we have developed a detailed scope of work for the preparation of a Water Reliability Study for IRWD. The following tasks describe our proposed approach to executing the project. The following sections of this scope of work describe the proposed model in great detail. We are confident the model will address all the objectives set forth by IRWD in this RFP and will provide additional functionality that will benefit both the planners and operators of the system.

### Task 1 | Project Management and Meetings

HDR recognizes the importance of customizing and implementing a strong project management approach led by experienced project managers. Jennifer Duffy has managed over 20 large scale planning projects in the past decade. She brings a strong sense of teamwork and the ability to recognize and expediently solve project challenges. Communication is a critical component of her management style and she will work closely with IRWD staff in implementing this project in accordance with your schedule and budget. Regular telephone and email communications will be supplemented with periodic team meetings to provide status updates, discuss and resolve project issues and verify that the study is on schedule.

We believe that the facilitation of the Project Workshops is a critically important element of this project. Through collaborative thinking and strategic discussion, we will capture innovative and fresh approaches to water reliability planning for IRWD. We believe that the best value of these workshops is in gathering your staff, decision makers and stakeholders to define the District's anticipated level of service under different durations and magnitudes of failure and potential mitigation measures, which will guide the development of the scenarios to be modeled. In order to do that, the participants will need a full understanding of the water demands within the District, and the risk elements associated with IRWD's current supply portfolio.

Our proposed approach is to convene the two 4-hour workshops at the onset of the Scenario Planning task (Task 4). These workshops can be held consecutively on a single day, or possibly on two afternoons on consecutive days, to allow for attendees to digest the information, and for HDR staff to assimilate information elicited from the group. We will work with District staff to identify attendees from both within the District and from other agencies, if their input is deemed beneficial to the discussion. The Scenario Planning Workshop will be facilitated by HDR's Integrated Water Supply Planning Director, Blaine Dwyer and include presentations and discussion with our technical experts.

At the first workshop, we will present water demand and supply characteristics, discuss existing documentation and proposed updates to this information. This is where our technical experts will prove their value. As discussed in much more detail in our Task 4 approach, HDR's experts bring a thorough understanding of the vulnerabilities associated with each of the supply and demand elements within IRWD's tool box. They offer a fresh perspective from outside of the regional planning arena, and an opportunity to vet the assumptions and analyses conducted by MWD and other regional planning agencies. In addition to being able to understand and articulate the risk factors, they also offer solutions to mitigating these risk factors.

At the second workshop, we will facilitate the development of the scenarios to be modeled. Building on the information provided in the first workshop, Blaine Dwyer will conduct the workshop to elicit level of service goals, as well as the key parameters and variables that the attendees agree will define the scenarios to be assessed in the model. We can't evaluate all risk factors for every scenario, but in collaboration with the Workshop attendees, we can use our expert evaluation of the system and demands to efficiently define and evaluate the risks with the largest exposure.

For example, we might begin the workshop with a discussion of what is a failure? Certainly there are several levels of failure in terms of magnitude and duration of loss. Then, for each type of failure, we would

discuss how such a failure could occur and what mitigating measures can be taken to offset the potential water shortage. There are a multitude of potential mitigation measures, so the order of implementation would also need to be prioritized. At the conclusion of this workshop, the HDR team will be able to move forward with a fully vetted list of scenarios to model in Task 5.

The Scenario Planning Workshop is an extraordinary effort that will take close coordination with IRWD staff to be successful. Jennifer Duffy's experience in organizing American Assembly style Workshops for the City of San Diego's Water Reuse Study, which set the foundation for the City's current Pure Water Program, will be invaluable in bringing technical resources together with utility staff, decision makers and stakeholders, and eliciting valuable discussion and consensus. Blaine Dwyer's ability to lead workshops to a productive end is demonstrated with his pivotal role in developing a Water Action Plan for the Platte River in Colorado, which served as the basis for a three-state Governance Committee approval of the plan. His presentations and facilitation of more than 15 interagency public meetings were critical to the success of the project. With his vast understanding of water supply issues in the Western US, including extensive work in the Colorado River Basin, and proven facilitator capabilities, Blaine is the ideal facilitator for these critically important workshops and he will keep us focused on the goal of establishing water reliability for IRWD.

And finally, as part of our Project Management task, we present our approach to quality control. Quality is a mindset that is shared by every member of the HDR Team. It starts with clearly understanding your expectations and making a commitment to meeting them. We have identified Dan Olson, the lead for HDR's Central Puget Sound Water Supply Forum Resiliency Assessment, to lead our Quality Control reviews. His recent experience on the Puget Sound project, examining best practices to effectively plan for, respond to and recover from risk events such as climate change, earthquakes, drought and water quality impairments, makes him uniquely qualified to provide guidance and independent review of all work products.

Additionally, HDR conducts internal Project Approach and Resource Review (PARR) on every project. PARR is a comprehensive technical review of our projects in the early stages of development to ensure the right expertise is involved, appropriate alternatives and concepts are being considered, and the project is on the right track to meet or exceed our client's needs. It is performed by one or more individuals with extensive experience in the key technical issues associated with the project.

For this task HDR will perform the following:

### 1.1 Project Work Plan and Administration

Develop a comprehensive project work plan document (Project Guide) containing project expectations and key issues, detailed scope, budget, schedule, meeting schedule, deliverables, communication protocols, contact details, and safety protocols. Perform the required tasks to ensure effective project management. Project administration tasks include contract administration, preparation of invoices, and management of project resources, budget and schedule.

### 1.2 Data Request and Review

Provide a data request list at the onset of the project. Meet with IRWD, MWD and MWDOC staff to gather the latest information regarding resiliency and reliability plans and policies. The project team will collect, track and review data provided. Data gaps will be noted and expeditiously resolved in coordination with IRWD staff.

### 1.3 Project Meetings and Progress Reports

Coordinate and attend a Project Kick-off meeting with the District to review project objectives and introduce key members of the project team. Coordinate and attend regular meetings, Project Coordination Meetings with the District. Prepare and submit an agenda at least one week in advance of the meeting. Within one week after the meeting, provide meeting minutes to the District. At each project meeting, submit a Project Progress Report that provides a summary of the project's progress. A presentation to the Board is included in Task 6.

## 1.4 Project Workshops

HDR will coordinate and conduct two 4-hour workshops at IRWD's offices at the onset of Task 4, Scenario Planning. Facilitate workshops and provide collateral materials and technical presentations to workshop attendees.

## 1.5 Project Schedule:

Maintain and update the project schedule using MS Project. The schedule will track all tasks and milestones including critical data requests, workshops and meetings, reports and key deliverables. Project meetings and workshops will be scheduled in accordance with the District's availability with meeting invites sent in-advance via MS Outlook. The project schedule will be presented at the project meetings.

## 1.6 QA/QC

Organize and develop an effective QA/QC program specific to the project to ensure project success and accuracy.

Present a draft QA/QC plan at the kickoff meeting for review and approval by IRWD staff. Conduct technical reviews throughout the project for the various deliverables. A qualified technical review team and sufficient schedule and budget to coordinate a thorough review of work products shall be provided.

### Deliverables

- Water Supply Reliability Study Project Guide, including QA/QC Plan
- Data Request and Tracking List
- Regularly Scheduled Status Reports and Schedules
- Agendas and Minutes for all Meetings and Workshops
- Workshop Presentations/Collateral Materials
- Monthly invoices

## Task 2 | Develop Model to Adjust Demand Projections

The District has requested the development of an add-on tool in MS Excel to facilitate linking data from the District's automated geographic information system (GIS)-based demand forecasting tool (DFT) to the water reliability model. We envision this task to involve only the development of the tool to facilitate inputting data into the model in Task 5. The actual development of the parameters themselves and the risk variables are included in Task 5.2.

HDR has teamed with DCSE, who developed IRWD's DFT to rapidly estimate the water demands in response to changes in the land use and the related use factors. Masoud Houseyni and Ali Diba from DCSE have spent their careers developing and managing database applications for GIS and other engineering software solutions. Their work products help clients evaluate tremendous amounts of data for evaluation of systems that are tailored to the client's needs. Their contribution to the team, as creators of the DFT, will facilitate efficient adjustments to demand projections through insightful enhancement to the DFT.

The changes in land use include varying the build-out and the phasing plans to evaluate different growth scenarios. The automated tool is used to generate and analyze the water demand component of the District's Water Resources Master Plan. The water demand data generated by the DFT is used to evaluate the system capacity and to plan future system expansions HDR proposes to use the add-on tool to provide input to an Integrated Resources Planning Distribution System Model (IRPDSM), described in detail in Task 5.

As shown in Exhibit 2, DCSE will develop an add-on tool, using MS Excel, to bridge the use of the DFT with the reliability model. The tool will adjust potable water demands based on various weather conditions, drought conditions and other impacts, to facilitate inputting data for the analysis of the system reliability scenarios in Task 5. The MS Excel add-on tool will have the following capabilities:

- Receive and upload data from the Demand Forecasting Tool (DFT).
- Allow for adjustment of the demand based on a number of parameters that will be used to adjust the normal year demand projections. These parameters will be individually identified and adjusted in the Excel sheet, based on findings of Task 5.2. Anticipated parameters include:
  - Weather Impacts
  - Wet and Dry Multiyear Impacts
  - Economic and Rate Impacts
  - Achievable voluntary reductions through public outreach during droughts and emergencies
  - Conservation efforts Impact
  - Unaccounted for Water and System Losses
- Ability to distribute the demand to different nodes of the IRPDSM model taking into account the multiple water use groups in the DFT and tiers of the demand in the IRPDSM. This would be important since the demand nodes of the IRPDSM model would not map one-to-one to the demand data generated from the DFT tool.

The add-on tool will ultimately facilitate the inputting of the demand data, in the format required, for the proposed IRPDSM model, described in Task 5.

For this task HDR will perform the following:

#### Task 2.1 Gather Requirements for Add-On Tool

Meet with IRWD to discuss the objectives of the DFT add-on tool for current and future use. Coordinate with the Water Reliability Study project team so that this add-on tool will be integrated seamlessly with the proposed Integrated Resource Planning Distribution System Model to be developed in Task 5.

#### Task 2.2 Propose Add-On Tool Design

Based on the established requirements, develop and present the conceptual design of the add-on tool to IRWD staff and the Water Reliability Study team. An add-in is software that adds new features into Microsoft Excel. Using an add-in helps to avoid errors and do repetitious work in minutes that could take hours manually. It is anticipated that the design tool will be programmed using C# (or C sharp) language. The C# language is a simple, modern, general-purpose, object-oriented programming language and intended to be economical with regard to memory and processing power requirements.

#### Task 2.3 Develop Add-On Tool

Develop the add-on tool to the specifications required and incorporating comments from the project team.

#### Task 2.4 Test and Validate the Add-On Tool

Test and validate the add-on tool. Document the results of the testing and present those findings to IRWD staff and the project team.

#### Task 2.5 Provide Training to IRWD staff

Deliver the add-on tool to IRWD and provide training to IRWD staff on the use of the add-on tool. Develop a brief user's guide for IRWD's future reference.

#### Task Deliverables

- Excel Add-on tool to adjust IRWD's DFT demand projections

## Task 3 | Characterize Existing and Future Water Supply Sources

Under this task, the HDR team will fully explore the characteristics of each of these water supply sources and identify the opportunities and constraints associated with each. We will use these characteristics and documented risk parameters to develop the scenarios in Task 4.

IRWD has developed a diverse array of water supply sources to meet demand conditions in both wet and dry year conditions. As demands grow and external factors impact the reliability of imported and local potable water resources, the risks associated with these supply sources should re-analyzed. With the most recent update of MWD's Integrated Resources Plan, the District's Water Resources planning documents and the most recent Water Supply Assessment Studies, much of this information is anticipated to be available through existing documentation. We will vet this information with the regional agencies that deliver water to IRWD and with our HDR experts in State Water Project and Colorado River Basin operations, and climatological modeling, and update any assumptions we find to be obsolete.

IRWD's current supply sources of potable water include:

- Local groundwater wells
- State Water Project (SWP) Water
- Colorado River Water
- Local runoff stored in Irvine Lake
- Local Interagency Agreements
- Water Banking in Kern County with the Rosedale Rio Bravo Water Storage District

IRWD is also dependent on the transmission, treatment and storage facilities that deliver potable water to the District. Short term disruptions in service for annual routine maintenance, as well as potential long term emergency disruptions, will be included in this analysis. These transmission facilities include:

- Diemer Regional Water Treatment Plant
- Aqueduct Systems that deliver imported water, including pumping facilities
- Local Storage Facilities/Reservoirs

Future supply sources of water, or infrastructure projects that will make the transmission system more resilient, will be assessed in the Reliability Study. Opportunities to maximize future supply sources and increase availability of current sources under emergency conditions may include:

- Baker Water Treatment Plant
- Ocean Desalination and distribution within South Orange County
- Water Banking in Kings County with the Dudley Ridge Water District
- Policy changes that allow increased use of resources
- Offsets gained through increased recycled use
- Additional storage of potable and non-potable water

Short term and long term impacts and documented risk factors for service disruption associated with each of these supply sources and infrastructure facilities will be presented at the Scenario Planning Workshop. At that workshop, we will seek to include additional input from the participants, which will be used to develop the supply constraint scenarios in Task 4.

For this task HDR will perform the following:

### 3.1 Characterize Existing Water Supply Sources

Characterize available supply sources and conveyance facilities for delivering potable supplies to the District including hydraulic and contracted capacities, age and expected useful life of current facilities, and potential for risk of service disruption.

### 3.2 Characterize Future Water Supply Sources

Characterize potential future supply sources and conveyance facilities for delivering potable supplies to the District including capacities and interagency agreements or contracts required. Potential for mitigating service disruptions associated with the District's current water supply sources will also be evaluated.

### 3.3 Coordinate with Regional Agencies

HDR will organize, attend, and document two meetings with MWD to obtain other information as required for imported facilities.

#### Deliverables

- Technical memorandum characterizing existing and future water supply sources
- Meeting agendas and minutes

## Task 4 | Define Supply and System Constraint Scenarios

Water reliability at IRWD depends on the independent functioning of a series of components that include multiple sources, pipelines, reservoirs, and pumping stations. Failures to one or more of these components have the potential to cause overall system failure

At the onset of Task 4, the HDR team will facilitate the Scenario Planning Workshop. At that workshop, we will present our findings from Task 3 (Water Supply Assessment) and Task 5.2 (Water Demand Assessment). We will also present a review of past reliability studies by local and regional agencies and describe their approach and assumptions in evaluating water supply reliability. Our team of experts will be on hand to validate or provide additional data to consider regarding these assumptions and approaches. Following the presentation, the HDR team will facilitate a brainstorming session with IRWD staff and stakeholders to develop a comprehensive list of scenarios that could impact IRWD's water reliability. Factors considered in the comprehensive list will be prioritized to develop an appropriate list of scenarios that cover outages and constraints of varying duration and magnitude. HDR will document eliminated scenarios for reconsideration at a later time.

In preparation for this proposal, each of our experts shared their expertise and experience relevant to water reliability at IRWD:

*"The impacts caused by catastrophic events that are unable to withstand earthquakes or severe flooding due to environmental source weather events can have catastrophic long term impact on the public and the economy." Dr. Les Harder, HDR expert on Imported Supply Vulnerabilities*

Dr. Harder is an expert on the performance of levees, specifically those in the Bay Delta area, who has served on numerous post-earthquake reconnaissance investigations and was heavily involved with the emergency response to California's 1997-1998 floods. Dr. Harder's understanding of the vulnerabilities of our imported water delivery system will allow us to assess appropriate risk factors to these supply sources, in accordance with their impact on IRWD's water supply portfolio. In addition, former Regional Director for the Lower Colorado Region of the U.S. Bureau of Reclamation, Bob Johnson will offer his expertise on water supply vulnerabilities in the Colorado River Basin. Outages as a result of climate change, major earthquakes, environmental restrictions and infrastructure failure will be discussed.

Imported water from the State Water Project (SWP) and the Colorado River Basin is delivered to IRWD through the MWD system. Potential issues affecting the reliability of these systems include:

- Delta failure
- Environmental restrictions (i.e. Delta smelt)
- SWP delivery failure (includes major earthquake)
- Colorado River basin drought
- Colorado Aqueduct delivery failure (includes major earthquake)

Mike McMahon, HDR Climatologist

The climate is changing, which poses significant long-term risks to the IRWD through supply and system disruption and constraint. Mike McMahon performed an impact analysis of climate change on the Bay Delta Conservation Plan (BDCP) using the factors quantified by global climate model (GCM) data for 112 different climate scenarios. Lessons learned from our work on the BDCP, Yakima Basin Project, and the in-progress Water Supply Variability Study for Central Utah Water Conservancy District (CUWCD), have helped our team appreciate the importance of scenario characterization.

Although there are almost an infinite number of future climate scenarios available, we have found that a combination of scenarios derived through a vetting process that includes what we, as climate experts, recognize as physically plausible scenarios along with feedback from the involved stakeholders through a workshop can arrive at the most optimal set of climate scenarios for site-specific application. Hydro-meteorological parameter changes, as quantified by either Coupled Model Intercomparison Project Phase 3/5 (CMIP3/5) model output or through quantitative evidence supplied by previous studies such as the NOAA Technical Report 142-5 for the study of Regional Climate Trends and Scenarios for the U.S. National Climate Assessment (Southwest U.S., 2013), will be used as input to make the final determination on scenario development.

The far-reaching impacts of climate change and their relationship to the operations of IRWD will need to be addressed on several levels of geographic scale (global to community), as well as in a way that addresses climate change impacts on the consequential interaction with other risks such as system failures, evolving environmental restrictions, or changes in regulatory guidance. As has been learned during other studies, the risks posed by climate change and variability will be there regardless of the consequences of the other identified risks. Climate change/variability impacts on supply and demand scenarios include changes in:

- Precipitation patterns that will impact water supply storage as well as decision making for flood control, minimum in-stream flows, and reservoir operation
- Temperature regimes that will have a profound impact on demand, as well as watershed ecology and water quality
- Snowpack and snowmelt timing in the Sierras and the Rockies, which may have the greatest impact on water supply resiliency within the region
- Intensity and duration of storm events, which could significantly alter design criteria (design storm) for infrastructure projects
- Groundwater supply, which would work in concert with demand changes to potentially deplete aquifers and result in land subsidence
- Flood recurrence, which could greatly impact reservoir/levee and water management in the region
- Drought cycles that would become an issue for water management from the watershed to the end user

The Scenario Planning Workshop will collaboratively derive a set of reasonable climate change scenarios, representing the 3-5 levels of climate adversity that will be used as model input for water supply and demand. HDR will engage climate change experts from the California Division of Water Resources (DWR) and the U.S. Bureau of Reclamation to provide input and decision support to this process. Additionally, HDR has the ability to engage members of the Western Governors Association Drought Forum in the workshop, if IRWD would be interested in seeking additional policy/funding support for their efforts.

John Koreny, HDR expert in Water Banking and Groundwater Resources

Policy change impacts may include the implementation of the new California Groundwater Management Act on IRWD's groundwater resources and water banking capabilities. IRWD's withdrawal of groundwater is

already limited by Orange County Water District (OCWD) which imposes limitations on IRWD's usage through the Basin Pumping Percentage (BPP). The BPP determines what portion of the water IRWD's customer use that can be taken from the basin. This percentage may be increased or decreased in the future as a result of changes to water supply in the basin. Furthermore, IRWD does not currently get the full benefit of water savings through its vast recycled water program because portions of its recycled water use count against the BPP. Changes to this policy in the future could increase the available supply from the groundwater basin, and these factors need to be taken into account in developing our planning scenarios. John Koreny's expertise will be instrumental in understanding the challenges and benefits of these policy changes. In the Scenario Planning Workshop, we will present our findings from Task 3 regarding current production sustainable yields and groundwater management policies and discuss the opportunities for enhancing this supply source.

Water banking is already being practiced by IRWD by capturing low cost water for underground storage during wet periods and recovering this water for later use and importation into the IRWD service area during dry periods or emergencies. The goal of IRWD's water banking program is to provide enough water to meet approximately 15 percent of IRWD customers' needs during critically dry years. The water bank is an important part of IRWD's commitment to provide the water customers need during critical shortage conditions while maintaining reasonable rates. John is currently assisting in the development of a water bank in Antelope Valley. The Antelope Valley Water Bank has proposed expansion of the existing 300 acre aquifer recharge project to over 1,000 acres with an annual aquifer recharge capacity of 100,000 acre-feet and a maximum total storage capacity of 500,000 acre-feet and is in the process of selling capacity. Water banking provides an opportunity to provide water storage of water that is not local and does not rely on local climate. In developing our scenarios for water banking, we will summarize the current IRWD program and assess available water supply from this resource in future years. At the Scenario Planning Workshop, John will help us explore potential options for expansion of water bank including expansion of the Kern County water bank and water banking in other areas (such as Antelope Valley or the Central Basin).

*"The primary focus of the Water Reliability Study will be the water supply volume, but degradation in quality of one of IRWD's supply sources could also create supply shortage."* Brian Black, HDR's Water Quality Vulnerability expert

Water quality vulnerabilities could come in many forms. For the Scenario Planning Workshop, we propose all types of potential water quality problems be considered initially for all sources and locations. We would then screen the potential problems based on likelihood of occurrence and degree of consequence, to identify the largest vulnerabilities and risks. The types of water quality issues vary by type of source, but they generally include:

- Short term incident, which might include intentional contamination, accidental chemical spills or fire impacts to water quality
- Longer term problems, which might include reservoir stratification, groundwater contamination, or increasing salinity due to drought
- Changing regulations that may identify new contaminants of concern

Once the potential water quality vulnerabilities are identified, mitigation or prevention measures would be developed.

A comprehensive list of water quality prevention and mitigation measures would be developed for assessment and screening. Assessment would include evaluation of feasibility and cost, as well as performance in reducing vulnerability to water quality problems. Some of the strategies and mitigation measures that could be considered at the Scenario Planning Workshop include:

1. Evaluation of the flexibility in use of existing sources considering potential outages due to water quality problems
2. Evaluation of alternative sources of supply;
  - a. Including potential connections to adjacent water suppliers
3. Coordination with other water suppliers and authorities to develop an early warning network;

4. Public education and communication
5. Early warning water quality systems / instrumentation;
6. Treatment upgrades;
7. Provision of additional raw or finished water storage
8. Watershed access controls / wellhead protection

In addition to the experts quoted above, our team includes Chris Krivanec who specializes in earthquake analysis and risk profiles, Chris Behr who specializes in risk management and reliability scenario development and Andrew Graham who has worked closely with numerous agencies, including Yakima River Basin to develop drought relief solutions and demand management programs. These experts will offer their knowledge and experience in water supply reliability and contingency planning across the US, bringing a fresh perspective and innovative ideas for consideration at our Scenario Planning Workshop.

For this task HDR will perform the following:

#### **4.1 Review and document past reliability assessments associated with IRWD's current or potential water supply sources and transmission facilities**

We do not want to reinvent the wheel – we will draw on past studies to document past reliability assessments as they affect the components of IRWD's water supply system.

#### **4.2 Update reliability factors based on input from our experts**

Evaluate documents reviewed in Task 4.1 to determine if the assumptions and data used in those assessments is still valid, or if more recent data or information is available that will make the analysis more current. Update those reliability factors and assumptions for use in the development of the model in Task 5.

#### **4.3 Develop Water Supply Constraint Scenarios and potential mitigation measures**

Following the Scenario Planning Workshop described in Task 1, develop supply and system disruption scenarios for review by IRWD. The supply disruptions may include drought allocations of imported or groundwater supplies or emergency shutdown of their respective production or conveyance facilities. The outage scenarios will include a probability of the outages and the probability of multiple outage scenarios occurring simultaneously. Short-term outages, and longer-term multi-year scenarios will be identified. Potential scenarios and factors that could be considered include, but are not limited to:

- Major earthquakes;
- Climate change;
- Metropolitan treatment and conveyance facility failures;
- IRWD well, treatment and conveyance facility failures;
- Environmental restrictions, whether or not the Bay Delta Conservation Plan is implemented, taking into consideration various alternative conveyance scenarios;
- Delta levee failures;
- State Water Project facility failures;
- Long term drought on the Colorado River;
- Colorado River Aqueduct facility failures; and
- Changes to the Orange County Water District groundwater basin health affecting the basin production percentage, including a long-term accumulated overdraft of over 500,000 acre-feet.

Potential mitigation measures for each scenario will be developed and prioritized to offset any water shortages that result from the scenarios modeled. Costs and benefits of each mitigation measure will be developed.

#### Deliverables

- Technical Memo that documents the Scenario Planning process and outcome; develops a range of scenarios and prioritized mitigation measures that will be modeled in Task 5; and establishes the cost and benefits of the proposed mitigation measures.

### Task 5 | Water Supply and System Requirements Analysis

Supply sources and regional demands are greatly impacted by the weather patterns, development and redevelopment plans, and water related policies. Additionally, natural disasters such as earthquake that may disrupt a supply requires that the transmission capacity of the system for different areas of the system to be taken into account to ensure that alternative supplies can be transferred to the impacted areas. This reliability analysis will evaluate the independent and combined effects of risks to each of these systems and assess whether existing redundancy is sufficient or if options for new supply sources would be required, and at what cost.

Although the HDR team has proven experience in developing a tool that evaluates the impact on water supply systems of constraints that occur at different frequencies and cause different levels of impact, we have teamed with DCSE to develop this model for IRWD. DCSE's Integrated Resource Planning Distribution System Model (IRPDSM) is a comprehensive resource and supply distribution system model which simulates and optimizes deliveries and storage of imported water specifically through Metropolitan Water District's distribution system. DCSE's model accounts for regionally coordinated local water supplies and storage of imported water in local groundwater basins and the hydraulic and storage constraints that limit the movement of water through the distribution system, thus it is quite superior to other generic risk modeling tools.

IRPDSM has been used by Metropolitan for the past 10 years to evaluate regional and member agency supply reliability, estimate the blend of imported water delivered to each member agency, and optimize water transfers and storage. Building on the IRPDSM to include a skeleton model of IRWD's water distribution system, this new model will be able to:

- Evaluate water shortage patterns under different supply and demand scenarios
- Evaluate alternative water transfer options
- Evaluate timing and sizing of facilities to enhance reliability
- Evaluate emergency response management plans in the event of natural disasters
- Perform conjunctive use of surface and groundwater resources and simulate the use of all storage based upon the historical hydrology sequences
- Track and specify blending of State Water Project, Colorado River Aqueduct (CRA), and/or groundwater in pipelines at each demand point
- Perform reliability analysis due to supply and demand uncertainty by evaluating the Monte-Carlo series generated by Integrated Resources Planning SIMulation (IRPSIM) model while considering the distribution system's conveyance capacity
- Perform what-if type analysis where the impact of adding new facilities is to be evaluated. Alternatively, model the effect of facility shutdowns for maintenance purposes
- Identify optimum size and location of new facilities and identify optimum operational improvements to integrate the new facilities
- Specify multiple time-step intervals to model the distribution system. For example, reservoir analysis may use monthly time intervals while treatment plant analysis may need hourly time intervals



- Preserve the system mass balance while routing water from the supply sources to meet the demand points
- Develop a GIS user interface to be used in displaying the model results generated by the model
- Store the input and output in the database to facilitate sharing of data with other models and GIS

The IRPDSM is a network of "Links" and "Nodes" that model pipes, supply sources, ground water reservoirs, treatment plants, service connection (demand nodes), surface reservoirs, pumping stations and power plants, as shown in the schematic below. The user defines objectives and constraints for the model. Each supply and demand node can have up to 10 tiers (types) and the user can identify the objective/constraint for each of them.

To provide an analysis of IRWD's water reliability under a variety of conditions, the HDR team will develop a schematic of the system consisting of MWD supply sources (MWD turnouts), groundwater supply sources (wells), tanks/reservoirs, junctions, and demand nodes. Additionally, we will collect the information on scheduled/planned outages of MWD facilities that may impact IRWD, and develop a matrix of how much water is planned for delivery to IRWD.

Because this model allows for the inclusion of hydraulic constraints, our analysis will include a check of the supply and system assumptions in each disruption scenario to insure the supply can be conveyed to the area where the demands exist.

Baseline demands for IRWD will be developed using the District's DFT. With input from IRWD staff, based on their inherent knowledge of the system and the community demand patterns, the HDR team will develop demand multipliers for a variety of factors that will be used as input for the DFT Add-On Tool developed in Task 2. Considerations in developing the demand multipliers under a variety of demand conditions are provided in the table below.

HDR will collaborate with IRWD staff to develop demand multipliers for factors that will be used as input for the DFT Add-On Tool.

FACTOR	CONSIDERATIONS/APPROACH
Conservation efforts during droughts and emergencies	To assess the magnitude of short-term responses by the public to requests/mandates for emergency water use reduction, assess IRWD's experiences over the past ten years that have reduced per capita demands to 87 gpcd. Assess permanency of these reduced demands during drought recovery periods using historic data.
Compliance with new plumbing codes and standards	IRWD has observed the impact of changes to plumbing codes and standards that have reduced water demand. The impact of these codes and standards will be assessed for their impact on future demands for new construction.  MWD's Integrated Water Resources Plan 2010 Update developed device specific assumptions related to when the new standard was established, the number of devices per household, compliance rate and natural replacement rate. This approach can also be applied to IRWD to develop projected decreases in demand, as more
Economic impacts	Consider lingering effects of the 2008 recession on household formation and household size. Model future changes in households related to recovery from the recession. Potentially link historic changes in local unemployment percentages with per capita water use.
Rate impacts	IRWD is well-known for using innovative rate structures to encourage water conservation. Correlate past rate increases with decreases in demand to assess degree of influence of price elasticity.
Climate impacts	Include local climate change effects on evapotranspiration (E-T) and outdoor landscape irrigation requirements, as one of the factors for adjusting demand projections. Use the best available science related to downscaled climate change models for southern California.

In addition to adding factors to the list above, uncertainty analysis can be applied to the multipliers that are developed (e.g., varying levels of climate change impacts on demand). HDR can use Monte-Carlo simulation for the full spectrum of risk factors in order to generate the joint effects on a statistically valid basis. This can then be used to generate probabilistic curves for the adjustments to existing water demand forecasts. Having probabilistic curves would enable IRWD to select from a range of forecast outcomes, which is what we did for the City of Olympia.

Once the demand factors are established and the model is developed, the scenarios developed in Task 4 will be run. IRPDSM uses a modeling methodology known as indexed sequential monte-carlo simulation. Under this methodology IRPDSM evaluates projections of demands, imported supplies, and storage portfolio based on an assumed pattern of future climate. Demands, local supplies, and imported supplies all vary depending upon the associated hydrologic conditions. The model cycles through 83 years of historical hydrology. In this manner, the indexed sequential methodology generates 83 different reliability outcomes for each forecast year, based on the range of impacts seen in the historical hydrology.

Using the indexed sequential methodology, we can evaluate the probability of being in shortage or surplus for each scenario over a designated time period. Infrastructure upgrades or new supply sources developed and prioritized as part of the development of scenarios in Task 4, will be modeled to assess their impact on system reliability. In addition, the analysis will indicate the amount of surplus capacity that IRWD might be able to provide to other agencies through existing inter-tie facilities. For each scenario and improvement investment scheme, a graphic similar to the one below will be developed to illustrate the likelihood of water shortage under that scenario and the improvement in reliability based on the proposed improvements. The final supply recommendations will also be characterized in terms of a percent of normal year demands (e.g. supply requirement = 150% of normal year demands). As part of the 90% draft report, the analysis will be presented with alternatives and cost estimates for achieving various levels of supply and system reliability.

For this task HDR will perform the following:

#### **Task 5.1 Create IRPDSM Schematic representing IRWD water transmission system**

Create IRWD system schematics using IRPDSM built-in Schematics Builder. The Schematics Builder will create links/nodes to represent IRWD facilities.

#### **Task 5.2 Prepare input for IRPDSM**

Develop additional input on IRWD's Water supply data for potable and groundwater sources, including the modeling of the hydraulic constraints and capacity of that system. Develop the water demand factors based on demand scenarios developed to reflect conservation efforts, regulatory or standard compliance, rate impacts, economic impacts and climate change impacts. Integrate demand factors with the DFT Add-On Tool, developed in Task 2. Input water demand data from the Add-On Tool to the IRPDSM.

#### **Task 5.3 Formulate disruption scenarios into IRPDSM scenarios**

Formulate prioritized supply and system disruption or constraint scenarios, as defined in Task 4, into IRPDSM scenarios.

Up to 10 scenarios, or variations of scenarios, and corresponding prioritized mitigation measures, will be developed for input into the model.

#### **Task 5.4 Conduct IRPDSM scenarios runs**

Conduct IRPDSM scenario runs for scenarios, as developed in Task 5.3.

#### **Task 5.5 Evaluate IRPDSM results and create supply sources reliability curves**

Analyze IRPDSM results conducted in Task 5.4 and create supply source reliability curves.

## 5.6 Summarize findings of IRPDSM and deliver model to District

Summarize data, assumptions and findings associated with the development and implementation of the IRPDSM model for inclusion in the 90% draft of the Water Reliability Plan.

The IRPDSM will be licensed for IRWD's direct use. DCSE has developed a resource simulation and optimization model that reflects MWD and MWDOC's supply and delivery system. The Water Resource Planning Model (WRPM) is the generic version of this model available to other water planning agencies. A significant amount of initial work is required to implement IRWD's water supply and demand framework within WRPM to produce the IRPDSM, as described in our Task 5 approach. Once this work is done, IRWD staff will reap many benefits through the use of the new model, including the following:

- **Reduced Run-time:** WRPM has been developed specifically for water resource modeling, unlike other Microsoft Excel based simulation tools. Once IRPDSM is configured for IRWD's system, the tool is able to work through analysis of multiple forecast years over multiple hydrologic year types very quickly simulating many nodes and links. Metropolitan has implemented resource simulation models using this software. Since IRPDSM accounts for line capacities, the reliance on hydraulic modeling runs will decrease considerably. This same practice with Excel based models would require many additional hours to arrive at the same results, if Microsoft Excel were capable of handling the large amounts of data.
- **Error Checking:** The structure of WRPM allows users to quickly view formulas and variable definitions for error checking. In addition, the software automatically checks calculations to make sure they are referencing variables correctly.
- **Graphical User Interface:** WRPM has a schematic interface that allows the user to build a system of water supply projects and water demand nodes that look similar to a map of facilities. This makes it easy for the user to visually identify the supply projects that have been implemented within the model. This same feature can be used for analysis of model output. As an example, a user can simply click on a pipe within the model to see the flows in that pipe under certain conditions in the future.
- **A Flexible Modeling Environment:** Metropolitan has used their model to simulate the operations of virtually all of their current water supply facilities and projects. This demonstrates WRPM's flexibility to model many different elements in the world of water resource planning. This flexibility will allow IRWD to conduct analysis in ways that hasn't been done before. IRWD will be able to quickly analyze different planning scenarios to help provide information for policy decisions.
- **Improved Data Sharing With Regional Water Supply Agencies:** IRWD works closely with regional water supply agencies on many long-range planning analyses. These analyses often require a transfer of data back and forth between the two agencies. This transfer of data is not very efficient because MWDOC and Metropolitan use different models with different input/output formats. WRPM will allow future data transfers to be seamless. The new model will allow IRWD planners to transfer data to these agencies quickly via Excel spreadsheets, Access Database files or even comma delimited files, if necessary. In addition, their input into IRWD's model will come in a format that can be readily used by WRPM.

The cost to license the WRPM software is a one-time fee of \$25,000, plus applicable sales tax.

### Deliverables

- Technical Memorandum summarizing the development process of the IRPDSM model, a description of the scenarios evaluated and findings of the model runs.
- License to the IRPDSM. License fee includes assistance with the installation of the model on District's computer system, user guide and training of staff in the use of the model.

## Task 6 | Preliminary Recommendations

As described below in Task 8, report chapters will be compiled and submitted for a 75% and 90% draft review, as requested in the RFP. Upon completion of the 90%, the HDR team will prepare and present an

overview of the study and preliminary recommendations to the IRWD Board of Directors in a workshop. The workshop will be facilitated by HDR's Integrated Water Supply Planning Director, Blaine Dwyer. Findings, recommendations and justification for the recommendations will be presented. Minutes will be taken, and responses to the Board's comments will be recorded and incorporated into the Final Draft Report.

For this task HDR will perform the following:

#### 6.1 Conduct Board Workshop:

Prepare and present study overview and preliminary recommendations to the IRWD Board. Prepare presentation, handouts and boards, as needed to convey findings. Facilitate workshop to elicit comments from the Board, and respond to those comments. Prepare workshop minutes. Incorporate Board comments into Final Draft Report.

#### Deliverables

- Workshop Agenda and Minutes
- Workshop Presentations/Collateral Materials

### Task 7 | Final Recommendations

For this task HDR will perform the following:

#### 7.1 Finalize Report:

Following the Board Workshop, and upon receipt of the District staff's comments, prepare a tabular response to comments for District's review. Upon resolution of comments, incorporate appropriate edits to the preliminary report and finalize a draft report, including report text, figures, tables and appendices

#### 7.2 Prepare Executive Summary

Prepare a clear, concise Executive Summary of the report findings and recommendations for inclusion in the Final Draft Report.

#### Deliverables

- Table with Response to Comments
- Executive Summary

### Task 8 | Report Deliverables

None of the work above means much if it cannot be compiled into a clearly written, transparent and comprehensive report document. HDR's proposed team members are experts at consolidating data into readable and easily referenced formats, with tables and figures to illustrate key points. A draft report outline will be presented at the kickoff meeting for your review. Our intent is to prepare the technical memoranda required in each of the above tasks as report chapters so that they can be transitioned easily into the final report. This allows IRWD staff to review draft work products as the work is being accomplished and not all at once toward the end of the project. Report chapters will be compiled and submitted for a 75% and 90% draft review, as requested in the RFP. At each submittal a project meeting will be scheduled to preview and discuss the report with District staff. Responses to District comments on the draft reports will be tabularized, for ease of review.

For this task HDR will perform the following:



### 8.1 Prepare 75% Draft Report

Prepare and submit a 75% complete report document, following the completion of Tasks 1 through 4. Seven (7) copies of the report will be provided to the District. It is assumed that the District will compile their comments into a single set of comments for inclusion in the 90% draft report.

### 8.2 Prepare 90% Draft Report

Prepare and submit a 90% complete report document following the completion of Task 5. Seven (7) copies of the report will be provided to the District. It is assumed that the District will compile their comments into a single set of comments for inclusion in the Final Draft Report.

### 8.3 Prepare Final Draft Report

Prepare and submit Fifteen (15) copies of the Final Draft Reports and Appendices and an electronic copy will be submitted on CD in PDF format. The Final Draft Report will be tabbed in a 3-ring binder, with appropriately labeled Figures and Tables, and supporting documents will be included in a tabbed Appendices.

#### Deliverables

- 75% Draft Report, 7 hard copies
- 90% Draft Report, 7 hard copies
- Final Draft Report, 15 hard copies in a 3 ring binder and appropriately tabbed
- Electronic files in PDF format of final deliverables



December 4, 2014

Ms. Fiona Sanchez  
Director of Water Resources  
Irvine Ranch Water District  
15600 Sand Canyon Avenue  
Irvine, CA 92618

RE: Irvine Ranch Water District – Water Reliability Study Proposal Fee

Dear Ms. Sanchez:

Please find enclosed our fee estimate to perform engineering services for your Water Reliability Study. We have developed our scope of services and fee estimate based on our understanding of the work and our discussions with you and other District staff. Our team includes recognized experts and an associated level of effort that will meet your expectations and will provide you with a high-quality work product. Our fee estimate reflects the substantial involvement by top experts in each of the subject areas that will be considered in the analysis. Upon our selection, we would appreciate an opportunity to discuss our approach to your Water Reliability Study to confirm we have estimated the level of effort to be appropriate and modify if necessary.

In addition to HDR's experts, our team consists of DCSE as a major sub consultant. Their role will primarily be in Task 2 to develop a tool to adjust demand projections and in Task 5 to develop an Integrated Resource Planning Distribution System Model (IRPDSM) that will be extremely valuable to IRWD for this study and for potentially other uses. DCSE brings tremendous value to the execution of these tasks based on their original development of IRWD's demand forecasting tool and the IRPDSM they developed for Metropolitan Water District of Southern California.

Please note that although HDR is drawing expertise from its national resources, the bulk of the report development will be conducted by core staff located in HDR's and DCSE's local offices.

HDR's labor and direct costs and the cost for the work that DCSE will perform are summarized below in Table 1 by task. A major portion of the fee is allocated to DSCE's contribution to the work product. We are prepared to discuss these costs with you and answer any questions you have regarding how they were developed.

Attachment A provides a table of labor hours for each task. Labor rates are detailed in Attachment B.

**Table 1. Summary of Fee Breakdown by Firm and Task**

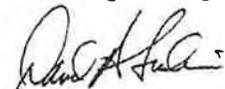
Task	Task Name	HDR Labor Budget <sup>1</sup>	DCSE Budget	HDR Direct Costs <sup>2</sup>	Total <sup>3</sup>
1	Project Management and Meetings	55,057		7,294	62,400
2	Develop Model to Adjust Demand Projections	6,067	33,040	104	39,200
3	Characterize Supply Sources	17,842		333	18,200
4	Supply and Sys Constraint Scenarios and Mitigation Strategies	25,713		474	26,200
5	Water Supply and System Req Analysis	17,587	112,628	355	130,600
6	Preliminary Recommendations	13,863		1,237	15,100
7	Final Recommendations	6,604		141	6,700
8	Deliverables	46,347		5,103	51,400
9	IRPDSM Licensing Fee <sup>4</sup>		27,000		
<b>Total</b>		<b>189,079</b>	<b>172,668</b>	<b>15,039</b>	<b>\$376,800</b>

1. HDR raw labor is based on a 3.1 multiplier
2. Travel and labor costs for Workshops in Task 1.4 assume up to 4 experts in attendance at the workshop, including Blaine Dwyer, and that the workshops will require only a single trip. IRWD is only responsible for reimbursement of actual travel costs incurred without markup.
3. Numbers in "Total" column are rounded to the nearest hundred dollars.
4. Licensing Fee includes 8% sales tax. Fee includes assistance with installation of the model on IRWD computer system, user guide and training of District staff on use of the model.

Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,

HDR Engineering, Inc.



David A. Ludwin, P.E.  
Senior Vice President

# Attachment A: Estimated Level of Effort

HDR Engineering  
 IRWD Water Reliability Study  
 Estimated Level of Effort and Fee

TASK NO.	DESCRIPTION	LEVEL OF EFFORT, HOURS											DCSE LABOR	HDR LABOR		
		Dan Olson	Jennifer Duffy	Ben Porter	Bob Johnson	Blaine Dwyer	Les Harder	Technical Experts	Amy Omar	Eng/ GIS	Proj Coord	Admin				
1	<b>Project Management and Meetings</b>															
1.1	Project Workplan and Coordination		24									18	3			43
1.2	Data Request and Review		2	4						16	18					38
1.3	Project Meetings (6)		12	12									3			27
1.4	Project Workshops (2 - 4 hr)		24	24	4	16	4	24	8				3			107
1.5	Project Schedule			2									4			8
1.6	QA/QC	24	2									4	4			34
	<b>Subtotal 1</b>	<b>24</b>	<b>64</b>	<b>42</b>	<b>4</b>	<b>16</b>	<b>4</b>	<b>24</b>	<b>24</b>	<b>18</b>	<b>20</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>255</b>
2	<b>Develop Model to Adjust Demand Projections</b>															
2.1	Gather Requirements														40	0
2.2	Propose Add On Tool Design														20	0
2.3	Develop Add on Tool														120	0
2.4	Test and Validate Tool														20	0
2.5	Provide Training to IRWD Staff		2	2				10	8						20	28
	<b>Subtotal 2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>220</b>	<b>28</b>
3	<b>Characterize Supply Sources</b>															
3.1	Characterize Existing Supply Sources		4	4	2	2	2	4	18							34
3.2	Characterize Future Supply Sources		4	4	2	2	2	4	18							34
3.3	Coordinate with Regional Agencies		4	8												12
3.4	Prepare TM			9									2			10
	<b>Subtotal 3</b>	<b>0</b>	<b>12</b>	<b>24</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>
4	<b>Supply and Sys Constraint Scenarios and Mitigation Strategies</b>															
4.1	Review past reliability assessments and risk factors		2	2					16	16						36
4.2	Update Risk Factors based on Expertise				0		8	24								40
4.3	Develop Scenarios and Prepare TM		16	16					16				4			52
	<b>Subtotal 4</b>	<b>0</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>24</b>	<b>32</b>	<b>16</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>128</b>
5	<b>Water Supply and System Req Analysis</b>															
5.1	Create IRPDMS Schematic									32					112	32
5.2	Prepare input for IRPDMS								8		32				70	40
5.3	Formulate Scenarios														160	0
5.4	Conduct Model Runs														152	0
5.5	Evaluate Results														140	0
5.6	Summarize Findings		8	8					4			4				24
	<b>Subtotal 5</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>12</b>	<b>32</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>634</b>	<b>96</b>
6	<b>Preliminary Recommendations</b>															
6.1	Presentation to Board		24	24		8					4		4			64
	<b>Subtotal 6</b>	<b>0</b>	<b>24</b>	<b>24</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>
7	<b>Final Recommendations</b>															
7.1	Finalize Report		2	4		2			8							16
7.2	Prepare Ex Summary		2	4					16							22
	<b>Subtotal 7</b>	<b>0</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>
8	<b>Deliverables</b>															
8.1	Prepare 75% Draft Report		8	24		2			40	24			20			118
8.2	Prepare 90% Draft Report		8	24		2			32	16			20			102
8.3	Prepare Final Draft Report		8	24		2			24	8			12			78
	<b>Subtotal 8</b>	<b>0</b>	<b>24</b>	<b>72</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>48</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>298</b>
<b>TOTAL, hours</b>		<b>24</b>	<b>156</b>	<b>188</b>	<b>16</b>	<b>36</b>	<b>16</b>	<b>104</b>	<b>228</b>	<b>118</b>	<b>20</b>	<b>83</b>	<b>854</b>	<b>0</b>	<b>0</b>	<b>997</b>

**Attachment B: Labor Rates**

**HDR ENGINEERING, INC.**  
**Southern California Operations**  
**STANDARD CHARGES FOR PROFESSIONAL SERVICES**  
 Effective December 22, 2014 to December 31, 2015

**Water Business Group Engineering**

	<b>2015 Billing Rates \$/Hr</b>
QA/QC/ Principal	\$300.00
Jennifer Duffy	\$269.00
Ben Porter	\$173.00
Bob Johnson	\$294.00
Blaine Dwyer	\$294.00
Les Harder	\$289.00
Technical Experts	\$220.00-280.00
Project Engineer	\$148.00
Engineering/GIS Support	\$120.00
Project Coordinator/Accountant	\$152.00
Admin Support	\$110.00

**Reimbursable Expenses**

Vehicle Mileage \$0.56 per mile (or per IRS Regulations)

December 15, 2014  
Prepared by: K. Drake / J. Zepeda  
Submitted by: P. Shields  
Approved by: Paul Cook

## ACTION CALENDAR

### ENTERPRISE ASSET MANAGEMENT SYSTEM PROJECT SUPPORT

#### SUMMARY:

The pre-implementation phase of the Enterprise Asset Management System (EAMS) project, initiated in May 2014, involves data collection and inventory of the District's operating facilities for importation into a new EAMS program. Consulting support services are needed to augment staff efforts by providing oversight of this critical phase of the project. Staff recommends that the Board authorize the General Manager to execute a Professional Services Agreement with GHD, Inc. in the amount of \$310,200 to provide project management and coordination services for the EAMS project.

#### BACKGROUND:

The EAMS is designed to improve the District's ability to manage and derive maximum value from its assets from acquisition to retirement. This system will provide tools for tracking and scheduling preventive and predictive maintenance, regulatory compliance, budgeting and procurement analysis, and monitoring of key performance indicators (KPIs). The first phase of the project includes the pre-implementation activities such as asset inventory and data collection, asset identification, condition assessment protocols, and criticality rating. Tasks in the second phase of the project involve finalizing the purchase of the EAMS software, importing the data collected during Phase One, and agency-wide implementation and training. This will complete the first major goal of utilizing the EAMS as a replacement computerized maintenance management system for the legacy Tabware program currently in use. Future phases will include the addition of piping systems (known as "horizontal assets"), integration of the geographic information system (GIS), and the use of maintenance schedulers and planners.

During the planning stages for the EAMS project, project management for Phase One was anticipated to be provided by IRWD staff. The project management role was assigned to the Maintenance and Reliability Manager, and subsequent to this decision, changes have occurred that resulted in a new approach. First, this individual resigned from the District in September 2014, which prompted further analysis regarding the staffing and consulting resources needed for this work. Second, based on the experience gained since the initiation of the pre-implementation Phase One, it became clear from the project scope that a qualified, dedicated, full-time Project Manager with the required skill set is required. The Operations Department will continue to provide guidance as well as staff for the data collection effort and other support as needed.

Consultant Selection:

There are several consultant firms that have extensive experience and knowledge of all aspects of EAMS implementation. The District is seeking an appropriately qualified individual that was locally based, and could provide the required full-time onsite Project Management support for at least one year. The District has spoken with several consulting firms regarding the District's needs for this project. GHD is qualified as one of these firms and a key member of their staff, Mr. Iday Syachrani, PhD, is uniquely qualified to fill the pre-implementation phase project management role. Dr. Syachrani has over eight years of asset management experience. He has worked with several municipalities and utilities to develop and implement their EAMS including the Santa Clara Valley Water District, and the cities of San Diego, Carlsbad, Livermore, Thousand Oaks, and others. Dr. Syachrani has also published asset management papers in a number of periodicals.

GHD, as shown in its proposal attached as Exhibit "A", will provide project management support services on a full-time basis throughout the estimated one-year pre-implementation phase. Staff recommends the execution of a Professional Services Agreement, in the amount of \$310,200 with GHD for these services.

FISCAL IMPACTS:

Sufficient funds are available in the FY 2014-15 capital budget.

ENVIRONMENTAL COMPLIANCE:

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

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on December 9, 2014.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT IN THE AMOUNT OF \$310,200 WITH GHD FOR PROJECT MANAGEMENT SUPPORT SERVICES FOR THE ENTERPRISE ASSET MANAGEMENT SYSTEM PROJECT.

LIST OF EXHIBITS:

Exhibit "A" – GHD, Inc.'s Proposal



## EXHIBIT "A"

November 25, 2014

Mr. Patrick Shields  
Executive Director of Operations  
Irvine Ranch Water District  
3512 Michelson Drive  
Irvine, CA 92612

### **SUBJECT: Proposal for Asset Management Project Support**

Dear Mr. Shields,

GHD pleased to provide this letter proposal for your consideration. We are very excited about the opportunity to support Irvine Ranch Water District (IRWD) asset management program development efforts. We greatly look forward to supporting you on this important endeavor.

IRWD has been strengthening its asset management program to foster more efficient financial and physical resource investments to strengthen the resilience of the infrastructure system. IRWD has worked to develop an asset management strategy that focuses on enhancing maintenance practices and establishing a sound information system to support asset management decisions. Enterprise Asset Management System (EAMS) implementation roadmap was developed to guide IRWD's asset management program improvement efforts. During the initial implementation stage, with multiple concurrent asset management initiatives and limited availability of staff, IRWD realized the need for a full-time, in-house, asset management program manager to help coordinate, manage, and execute the improvement initiatives. Under the supervision of IRWD Executive Management Team, the asset management program manager will need to ensure all asset management initiatives are in alignment with IRWD's strategic direction and be customized to best fit the needs of IRWD. In addition, the asset management program manager must train IRWD staff in asset management and transfer knowledge to fully develop IRWD in-house capability.

GHD fully understands IRWD's goals and objectives. We have helped numerous clients achieve similar objectives with great success. We have the knowledge, experience, and technology to achieve your goals and objectives in the most effective and efficient manner. Based on our combined expertise and experiences in asset management, we are confident that IRWD will benefit from partnering with GHD to achieve the desired results.

GHD is an industry leader in asset management. For over 25 years, GHD has worked with more than 500 local authorities and utility agencies worldwide to develop asset management programs. Our asset management experience began with assisting in the development of the International Infrastructure Management Manual. GHD continued its success by developing the US EPA's asset management framework and providing advanced asset management training on their behalf. GHD also provided technical services in the development of the new global asset management standard, the ISO 55000 series. Our approach and methodology are always in alignment with international asset management best practices.



## Scope of Service

In order to help IRWD meet its asset management goals and objectives, GHD will provide a full-time Senior Asset Management Consultant (Consultant). IRWD will review the list of available candidates and select the candidate who best fit IRWD's requirements. The Consultant will be fully (100%) dedicated to IRWD for the duration of the project. The Consultant will report directly to IRWD's Assistant Director of Maintenance, Ken Drake and work out of IRWD's Michelson Water Recycling Plant (MWRP) facility at 3512 Michelson, Irvine, CA. Unless otherwise directed by IRWD, the Consultant's work hours will follow IRWD's work and holiday schedule. The specific roles and responsibilities of the Consultant are provided below. Specifics of each task and the associated schedule and deliverables will be as directed by IRWD.

### A. Program Scheduling, Budgeting and Coordination Responsibilities

The Consultant's program scheduling, budgeting and coordination responsibilities may include, but are not limited to the following:

#### 1. Project Coordination

- Review all current and future asset management tasks and develop a coordinated plan with schedule for execution.
- Develop the program schedule using MS Projects and track all asset management tasks.
- Coordinate with all internal and external project managers working on asset management tasks.
- Review all asset management deliverables to ensure all scoped items are delivered, quality is met, and is in alignment to IRWD's asset management program goals and objectives.
- Develop a central knowledge repository (i.e., SharePoint) for asset management. This repository will be a one stop location to access all asset management data, tools, schedule, and reports.
- Prepare a monthly progress report for the IRWD executive management team to document the progress of all asset management activities.
- Prepare a weekly progress meeting for the Assistant Director of Maintenance to report on progress of asset management tasks (e.g., progress, upcoming tasks, budget, schedule, risks, concerns).

#### 2. Schedule and Budget

- Maintain and update IRWD's cost and schedule control and reporting system.
- Assist IRWD staff to maintain its cost control process to timely provide an accurate measure of expenditures, obligations, commitments and expenses.
- Use standard accounting methods to tabulate, compile and check correctness of all expenditures associated with the Program based on information provided by IRWD.
- Using MS Project or other IRWD project management system to coordinate and maintain a schedule that documents the sequence and time frame for each project and/or asset management tasks.
- Include schedule and budget updates on the monthly progress report to the IRWD executive management team.
- Communicate schedule and budget updates to IRWD Assistant Director of Maintenance.

#### 3. Training and Procedures

- As requested by IRWD, develop and provide asset management training for IRWD staff on asset management functions, procedures, and methodologies.



- Develop and document asset management business processes.
- Assist IRWD evaluate and enhance current asset management processes/procedures and develop new ones as required.
- Assist IRWD with overall coordination and administration of the program.

## **B. Asset Management Responsibilities**

The Consultant's asset management responsibilities may include, but are not limited to:

### *1. Asset Inventory*

- Review and report on all existing asset data and assess data quality, confidence, and needs.
- Assist and train IRWD staff in asset inventory. Develop asset inventory methodology.
- Monitor and supervise the data collection efforts by IRWD staff.

### *2. Condition Assessment Protocol*

- Assist and train IRWD staff in condition assessment protocol. The condition assessment protocol will establish the condition assessment scale and rating for each major asset class.

### *3. Asset Data Standards*

- Review current asset data standards. Where required, recommend data attributes required to support asset management decisions.
- For each major asset classes, identify asset data attributes required to support asset management decisions.

### *4. Asset Hierarchy*

- Work with IRWD to develop an asset hierarchy that aligns with asset management best practices and the needs of IRWD.

### *5. Asset Registry*

- Utilize the central asset database (asset register) complete with attributes to support asset management decisions. Organize the asset register based on the developed asset hierarchy.

### *6. Business Risk Exposure*

- Develop a customized Business Risk Exposure methodology for IRWD.
- Based on the condition assessment and asset attributes, for every asset, calculate the probability of failure.
- Based on available asset data, staff knowledge, and GIS layers, assess consequence of failure for each asset
- Develop facility criticality list for facilities.
- Develop critical asset listing.
- Develop valve criticality list.
- Work with IRWD staff to develop risk mitigation strategies (e.g., maintenance plans, renewal plan, consequence of failure reduction strategy).

### *7. Life Cycle Costing*

- Develop management strategies (e.g., useful life, decay curve, major maintenance schedule).
- Calculate life cycle cost of ownership to project future investment and resource needs.



- Identify assets needed replacements in the near future and develop strategies to help plan for financial and resource allocation.
8. *Asset Management Plan*
- Document the current state of assets, the risk profile, and the future investment and resource needs for IRWD assets.
  - Support IRWD managers identify CIP project needs and help develop appropriate budgets.
  - Assist in development of graphs, reports, and presentations to help IRWD managers communicate the need to the Board.
9. *Business Case Evaluation*
- Develop project validation and prioritization methodology and tools to validate, communicate, and prioritize IRWD capital investments.
  - Develop business case evaluations for justification and communication of large capital investment.
10. *Asset Management Roles and Responsibilities*
- Identify asset management roles and responsibilities for IRWD staff.
  - Help develop justification for asset management staff hiring (e.g., timing, budget, roles, how many positions).
  - When required, help develop job descriptions for asset management roles.
  - Assist in establishment of Asset Management Steering Committee. Identify who should be members of the committee and what the functional role of the committee is. Develop agenda and meeting minutes to record communication. Act as interim asset manager to host the meeting until IRWD allocates a staff to take over.
11. *Continuous Improvement*
- Develop key performance indicators to track performance (e.g., maintenance, energy, safety).
  - Assist in development of levels of service and performance indicators.
  - Measure and track improvement progress.
  - Assess asset management program to highlight areas of strength and weaknesses. Develop asset management program improvement plan and roadmap.

### **C. Asset Management Information System Responsibilities**

The Consultant's asset management information system responsibilities may include, but are not limited to:

- Develop one stop location (i.e., SharePoint) for all asset management data, methodology, schedule, and products.
- Review existing asset management information system strategy and implementation plans. Provide recommendations for improvement as required.
- Assist IRWD with GIS needs (e.g., data input, data assessment, development of GIS layers).
- Assist IRWD with CMMS selection and implementation.
- Assist IRWD with any asset management information system training needs.



#### **D. Change Management / Knowledge Capture Responsibilities**

The Consultant's change management and knowledge capture responsibilities may include, but are not limited to:

- Develop a knowledge capture plan and database.
- Document knowledge and translate them to usable data for asset management.
- Help develop succession plan and communicate the need to IRWD managers.
- Work with IRWD managers to develop risk mitigation plan.

#### **Budget and Schedule**

The above scope of services will be provided within the not-to-exceed budget of \$310,200. This budget is calculated based on a 12-month delivery schedule. IRWD will be invoiced monthly at an hourly charge rate of \$165. No other direct costs (e.g., travel, food, supplies) will be billed to IRWD. At the end of 12-month period, IRWD can extend or terminate the contract at IRWD's full discretion.

We appreciate your consideration of our proposal, and we look forward to working with you. We are available, locally mobilized, and ready to move forward as directed by IRWD.

Sincerely,

GHD, Inc.

A handwritten signature in black ink, appearing to read "SC", with a horizontal line extending to the left and a vertical line extending downwards from the end of the signature.

Colin Chung, Ph.D.  
Business Consulting Service Group Manager

DS  
December 15, 2014

Prepared by: C. Spangenberg/R. Mori RKM

Submitted by: K. Burton K.B.

Approved by: Paul Cook / Paul Cook

## ACTION CALENDAR

### WELLS ET-1 AND ET-2 REHABILITATION CONSTRUCTION AWARD

#### SUMMARY:

Wells ET-1 and ET-2 are part of the El Toro Groundwater Remediation Program, which is designed to clean up the trichloroethylene (TCE) found in portions of the groundwater basin beneath the former El Toro Marine Corps Air Station and central Irvine. These two wells have experienced decreased production over the years and need to be rehabilitated. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$52,500, from \$877,800 to \$930,300, for Project 30402; and
- Authorize the General Manager to execute a construction contract with General Pump Company, Inc. in the amount of \$679,525 for the Wells ET-1 and ET-2 Rehabilitation Project.

#### BACKGROUND:

Wells ET-1 and ET-2 are part of the El Toro Groundwater Remediation Program, which is designed to clean up the TCE found in portions of the groundwater basin beneath the former El Toro Marine Corps Air Station and central Irvine. These two wells have experienced decreased production over the years and need to be rehabilitated. The goal of this project is to increase both the specific capacity and the production capacity of the wells. The rehabilitation efforts include mechanical cleaning, nylon and/or wire brushing, air bursting, chemical addition, swabbing, air lifting, and mechanical development at each well to break up and remove the consolidated material caused by microbial and inorganic fouling. Work also includes necessary repairs and replacement of various pump components in both wells. Staff has notified the Department of the Navy (DON) that the District will be applying for reimbursement of the well rehabilitation costs for both wells up to a maximum of \$1 million as stipulated in the Settlement Agreement with the DON from the Contingency Fund Account.

The project was advertised November 6, 2014, to a select list of seven contractors including Bakersfield Well & Pump Company, Best Drilling and Pump, Inc., South West Pump & Drilling, Inc., General Pump Company, Inc., Hydro Resources, Rottman Drilling Company, and Hidden Valley Pump Systems, Inc. The bid opening was held December 9, 2014, with bids received from Best Drilling and Pump, Inc. and General Pump Company, Inc. General Pump Company, Inc. is the apparent low bidder with a bid amount of \$679,525.

Staff reviewed General Pump Company's bid and has determined that it is responsive. The engineer's estimate, prepared by Richard C. Slade and Associates, was \$688,800. The low bid was about 1 percent less than the engineer's estimate. Staff recommends awarding the

construction contract to General Pump Company, Inc. in the amount of \$679,525. The Bid Summary is attached as Exhibit "A".

FISCAL IMPACTS:

Project 30402 (4328) is included in the FY 2014-15 Capital Budget. Staff requests a budget increase to fund construction and construction phase engineering services as shown in the table below.

Project No.	Current Budget	Addition <Reduction>	Total Budget
30402 (4328)	\$877,800	\$ 52,500	\$930,300

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 filed with the County of Orange on January 15, 2014.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$52,500, FROM \$877,800 TO \$930,300, FOR PROJECT 30402 (4328), AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH GENERAL PUMP COMPANY, INC IN THE AMOUNT OF \$679,525 FOR THE WELLS ET-1 AND ET-2 REHABILITATION, PROJECT 30402 (4328).

LIST OF EXHIBITS:

Exhibit "A" – Bid Summary

Item No.	Description	Qty	Unit	Engineer's Estimate		1 General Pump Co. San Dimas, CA		2 Best Drilling and Pump Colton, CA	
				Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount
<b>Schedule A - Well ET-1</b>									
A-1	Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work, procure NPDES permit from RWQCB, Santa Ana Region and prepare site as specified (Maximum allowable 4.0% of the bidder's total bid).	1	LS	\$14,000.00	\$14,000.00	\$15,200.00	\$15,200.00	\$14,000.00	\$14,000.00
A-2	Disconnect motor from electrical system, remove existing motor, discharge head, pump column, line shaft, bearings, couplers, adaptors, pump and all other appurtenances and sound well. Only deliver motor, discharge head, pump and other appurtenances to DISTRICT storage facility. Dispose of the column pipe, line shaft, bearings, couplers and adaptors.	1	LS	\$25,000.00	\$25,000.00	\$7,100.00	\$7,100.00	\$6,000.00	\$6,000.00
A-3	Brush well casing initially with a stiff nylon brush and later, if requested, with a stiff wire brush. Bail sediment following brushing.	16	Hours	\$450.00	\$7,200.00	\$280.00	\$4,480.00	\$375.00	\$6,000.00
A-4	Conduct initial well development using "air-jetting" methods, via AirBursting™ or the BoreBlast™ methods, or similar.	1	LS	\$1,200.00	\$1,200.00	\$14,090.00	\$14,090.00	\$13,000.00	\$13,000.00
A-5	Perform chemical treatment of well water using acids, as specified.	1	LS	\$60,000.00	\$60,000.00	\$48,740.00	\$48,740.00	\$57,000.00	\$57,000.00
A-6	Perform mechanical development (airlifting and swabbing) of the well.	50	Hours	\$450.00	\$22,500.00	\$380.00	\$19,000.00	\$525.00	\$26,250.00
A-7	Conduct treatment and discharge of mechanical development fluids via neutralization and blending and disposal of solids/sludges per specifications, including VOC treatment (using the GAC adsorption system), sampling, and reporting for NPDES discharge compliance.	1	LS	\$80,000.00	\$80,000.00	\$184,695.00	\$184,695.00	\$145,000.00	\$145,000.00
A-8	Clear water column and provide two downwell interim color video surveys of well casing as specified.	2	EA	\$1,500.00	\$3,000.00	\$1,100.00	\$2,200.00	\$1,200.00	\$2,400.00
A-9	Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump (to a depth of 210 ft bgs), equipment and other appurtenances/accessories as necessary in accordance with specifications.	1	LS	\$15,000.00	\$15,000.00	\$27,100.00	\$27,100.00	\$20,000.00	\$20,000.00
A-10	Perform pumping development of the well including monitoring of water levels and measurement of sand content, as specified.	48	Hours	\$350.00	\$16,800.00	\$245.00	\$11,760.00	\$425.00	\$20,400.00
A-11A	Perform step drawdown test including monitoring of water levels and measurements of sand content, as specified.	12	Hours	\$350.00	\$4,200.00	\$245.00	\$2,940.00	\$425.00	\$5,100.00
A-11B	Perform 48-hour constant rate pumping (aquifer) test, including monitoring of water levels and measurement of sand content, as specified.	48	Hours	\$350.00	\$16,800.00	\$220.00	\$10,560.00	\$425.00	\$20,400.00
A-12	Clear water column and provide a final downwell color video survey of the well casing as specified.	1	LS	\$1,500.00	\$1,500.00	\$1,100.00	\$1,100.00	\$1,200.00	\$1,200.00
A-13	Conduct well disinfection and clean-up site, as specified.	1	LS	\$7,500.00	\$7,500.00	\$2,000.00	\$2,000.00	\$6,000.00	\$6,000.00
A-14	Standby time with active rig and crew as directed by DISTRICT.	16	Hours	\$300.00	\$4,800.00	\$50.00	\$800.00	\$225.00	\$3,600.00
A-15	Standby time with inactive rig and crew as directed by DISTRICT.	16	Hours	\$250.00	\$4,000.00	\$50.00	\$800.00	\$175.00	\$2,800.00
A-16A	Obtain pump motor, discharge head, motor and pump from DISTRICT and re-install pump to a depth of 188 ft, as specified.	1	LS	\$12,000.00	\$12,000.00	\$7,150.00	\$7,150.00	\$7,000.00	\$7,000.00

Item No.	Description	Qty	Unit	Engineer's Estimate		1 General Pump Co. San Dimas, CA		2 Best Drilling and Pump Colton, CA	
				Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount
				Price	Amount	Price	Amount	Price	Amount
A-16B	Furnish new column pipe, couplings, line-shaft, and adaptors and other items, as specified.	1	LS	\$30,000.00	\$30,000.00	\$18,220.00	\$18,220.00	\$15,000.00	\$15,000.00
A-16C	Re-establish wiring and connection of permanent pump into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump for a period of three (3) consecutive days.	1	LS	\$3,000.00	\$3,000.00	\$1,600.00	\$1,600.00	\$3,000.00	\$3,000.00
A-16D	Allowance for additional costs for parts and/or materials during replacement of permanent pump.	1	Allowance	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
A-16E	Provide for vibration monitoring and testing of the permanent pump.	1	LS	\$2,000.00	\$2,000.00	\$2,500.00	\$2,500.00	\$8,700.00	\$8,700.00
<b>Subtotal, Base Bid Schedule A:</b>					<b>\$335,500.00</b>		<b>\$387,035.00</b>		<b>\$387,850.00</b>
<b>Schedule B - Well ET-2</b>									
B-1	Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work, procure NPDES permit from RWQCB, Santa Ana Region and prepare site as specified (Maximum allowable 4.0% of the bidder's total bid).	1	LS	\$14,000.00	\$14,000.00	\$11,200.00	\$11,200.00	\$11,500.00	\$11,500.00
B-2	Disconnect motor from electrical system, remove discharge elbow, motor, column pipe, pump, couplings, electrical cable and all other appurtenances and sound well. Deliver removed items to DISTRICT storage facility. Dispose of column pipe and electrical cable.	1	LS	\$25,000.00	\$25,000.00	\$7,435.00	\$7,435.00	\$9,000.00	\$9,000.00
B-3	Brush well casing initially with a stiff nylon brush and later, if requested, with a stiff wire brush. Bail sediment following brushing.	16	Hours	\$450.00	\$7,200.00	\$280.00	\$4,480.00	\$375.00	\$6,000.00
B-4	Conduct initial well development using "air-jetting" methods, via AirBursting™ or the BoreBlast™ methods, or similar.	1	LS	\$12,000.00	\$12,000.00	\$22,580.00	\$22,580.00	\$18,000.00	\$18,000.00
B-5	Perform chemical treatment of well water using acids, as specified.	1	LS	\$70,000.00	\$70,000.00	\$76,860.00	\$76,860.00	\$75,000.00	\$75,000.00
B-6	Perform mechanical development (airlifting and swabbing) of the well.	50	Hours	\$450.00	\$22,500.00	\$380.00	\$19,000.00	\$525.00	\$26,250.00
B-7	Conduct treatment and discharge of mechanical development fluids via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, and reporting for NPDES discharge compliance.	1	LS	\$20,000.00	\$20,000.00	\$26,200.00	\$26,200.00	\$12,500.00	\$12,500.00
B-8	Clear water column and provide two downwell interim color video surveys of well casing as specified.	3	Each	\$1,500.00	\$4,500.00	\$1,100.00	\$3,300.00	\$1,200.00	\$3,600.00
B-9	Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump (to a depth of 250 ft), equipment and other appurtenances/accessories as necessary in accordance with specifications.	1	LS	\$15,000.00	\$15,000.00	\$20,950.00	\$20,950.00	\$20,000.00	\$20,000.00
B-10	Perform pumping development of the well including monitoring of water levels and measurement of sand content, as specified.	48	Hours	\$350.00	\$16,800.00	\$245.00	\$11,760.00	\$425.00	\$20,400.00
B-11A	Perform step drawdown test including monitoring of water levels and measurements of sand content, as specified.	12	Hours	\$350.00	\$4,200.00	\$245.00	\$2,940.00	\$425.00	\$5,100.00
B-11B	Perform 48-hour constant rate pumping (aquifer) test, including monitoring of water levels and measurement of sand content, as specified.	48	Hours	\$350.00	\$16,800.00	\$220.00	\$10,560.00	\$425.00	\$20,400.00

Item No.	Description	Qty	Unit	Engineer's Estimate		1 General Pump Co. San Dimas, CA		2 Best Drilling and Pump Colton, CA		
				Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	
B-12	Clear water column and provide a final downwell color video survey of the well casing as specified.	1	LS	\$1,500.00	\$1,500.00	\$1,100.00	\$1,100.00	\$1,200.00	\$1,200.00	
B-13	Conduct well disinfection and clean-up site, as specified.	1	LS	\$7,500.00	\$7,500.00	\$2,000.00	\$2,000.00	\$6,000.00	\$6,000.00	
B-14	Standby time with active rig and crew as directed by DISTRICT.	16	Hours	\$300.00	\$4,800.00	\$50.00	\$800.00	\$225.00	\$3,600.00	
B-15	Standby time with inactive rig and crew as directed by DISTRICT.	16	Hours	\$250.00	\$4,000.00	\$50.00	\$800.00	\$175.00	\$2,800.00	
B-16A	Obtain new discharge elbow, motor, pump and motor from DISTRICT and re-install pump and other appurtenances, as necessary, to a depth of 212 ft, as specified.	1	LS	\$12,000.00	\$12,000.00	\$7,265.00	\$7,265.00	\$7,000.00	\$7,000.00	
B-16B	Furnish new column pipe, adaptors, couplings, pump check valve, electrical cable with terminal lugs, and other appurtenances, as specified for installation.	1	LS	\$60,000.00	\$60,000.00	\$45,760.00	\$45,760.00	\$30,000.00	\$30,000.00	
B-16C	Re-establish wiring and connection of permanent pump into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump for a period of three (3) consecutive days.	1	LS	\$3,000.00	\$3,000.00	\$1,600.00	\$1,600.00	\$3,000.00	\$3,000.00	
B-16D	Allowance for additional costs for parts and/or materials during replacement of permanent pump.	1	LS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	
B-17	Slurry Seal and Restripe Parking Lot.	1	LS	\$7,500.00	\$7,500.00	\$2,300.00	\$2,300.00	\$5,000.00	\$5,000.00	
B-18	Temporary Construction Fencing to Enclose Work Area	1	LS	\$5,000.00	\$5,000.00	\$3,100.00	\$3,100.00	\$5,000.00	\$5,000.00	
B-19	Repair Sidewalk, Landscaping and Repair Existing Irrigation Facilities.	1	LS	\$15,000.00	\$15,000.00	\$5,500.00	\$5,500.00	\$7,000.00	\$7,000.00	
<b>Subtotal, Base Bid Schedule B:</b>						<b>\$353,300.00</b>		<b>\$292,490.00</b>	<b>\$303,350.00</b>	
<b>TOTAL AMOUNT OF BID:</b>						<b>\$688,800.00</b>		<b>\$679,525.00</b>	<b>\$691,200.00</b>	
						<b>Item Delivery Dates:</b>	<b>Item Delivery Dates:</b>			
						Pump Column for Wells ET-1 & ET-2: 42 days	Pump Column for Wells ET-1 & ET-2: 10-14 days			
						<b>Manufacturers:</b>	<b>Manufacturers:</b>			
						Column Pipe: 101 Pipe & Casing Cable: Flowserve	Pump Column: Custom Pipe NW-310: Bilfinger Water Technologies			
						<b>Subcontractors:</b>	<b>Subcontractors:</b>			
						Pure Effect Environment: 47%	Well Video: Pacific Survey Air Burst: Advanced Well Technologies Slurry Seal/Restripe: Ben's Asphalt			

December 15, 2014

Prepared and

Submitted by: N. Savedra

Approved by: Paul Cook



## ACTION CALENDAR

### ANNUAL BOARD OF DIRECTORS' FEES

#### SUMMARY:

The Finance and Personnel Committee annually reviews the Board of Directors' compensation and recommends to the Board to either accept or deny a fee increase for the new calendar year. Pursuant to the District's Ordinance No. 1989-1 and enacted under Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year, however, said increase may not exceed an amount equal to five (5%) percent, and no compensation for more than a total of ten (10) days in any calendar month.

#### BACKGROUND:

The current compensation for the Board of Directors is \$237 per meeting, not to exceed ten (10) meetings per month. In accordance with Section 20202 et seq. of the California Water Code, the Board's meeting compensation increases on January 1 of each year by five (5%) percent. If the Board accepts the increase, the resulting per meeting fee will be \$249 (rounded to the nearest dollar). The last Board of Directors' compensation increase was effective in January 2009.

Provided as Exhibit "A" is a survey of the Director Fees for other local water districts.

#### FISCAL IMPACTS:

A 5% increase has a nominal impact on the operating budget if accepted by the Board.

#### ENVIRONMENTAL COMPLIANCE:

Not applicable

#### COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee meeting on December 9, 2014.

#### RECOMMENDATION:

That the Board accept the five (5%) percent scheduled compensation increase for calendar year 2015.

#### LIST OF EXHIBITS:

Exhibit "A" – Survey of Director Fees

**BOARD OF DIRECTORS PER DIEM SURVEY  
(as of October 31, 2014)**

<b>AGENCY</b>	<b>PER DIEM MEETING</b>	<b>EFFECTIVE DATE</b>	<b>MAXIMUM MEETINGS PER MONTH</b>
El Toro Water District	\$198.00	December 2007	10
Irvine Ranch Water District	\$237.00	January 2009	10
Mesa Water District	\$207.00	February 2013	10
Moulton Niguel Water District	\$199.50	October 2007	10
Municipal Water of Orange County	\$244.33	January 2014	10
Orange County Water District	\$221.12	January 2008	10
Santa Margarita Water District	\$210.00	February 2009	10
South Coast Water District	\$190.00	January 2006	10
Yorba Linda Water District	\$150.00	January 2003	10

December 15, 2014

Prepared and

Submitted by: L. Bonkowski

Approved by: Paul Cook



## ACTION CALENDAR

### ELECTION OF OFFICERS FOR 2015

#### SUMMARY:

The Bylaws of the District provide that the President and Vice President shall be elected by the Board from among its members. The term of office of the President and Vice President is one year, or until the election and qualification of their successors. On December 16, 2013, Director Steven LaMar was elected to the office of President and Director Peer Swan was elected to the office of Vice President for calendar year 2014.

While there are no formal election procedures set forth in the Bylaws, it is suggested that the General Manager be appointed temporary Chairman to conduct the election of President. The temporary Chairman would open nominations, accept nominations which need not be seconded, accept a motion to close the nominations, and conduct the balloting by voice vote. The President would then conduct the election of the Vice President in a similar manner.

#### FISCAL IMPACTS:

None.

#### ENVIRONMENTAL COMPLIANCE:

Not applicable.

#### COMMITTEE STATUS:

Not applicable.

#### RECOMMENDATION:

THAT AN ELECTION BE CONDUCTED OF THE PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS OF THE IRVINE RANCH WATER DISTRICT.

#### LIST OF EXHIBITS:

None.